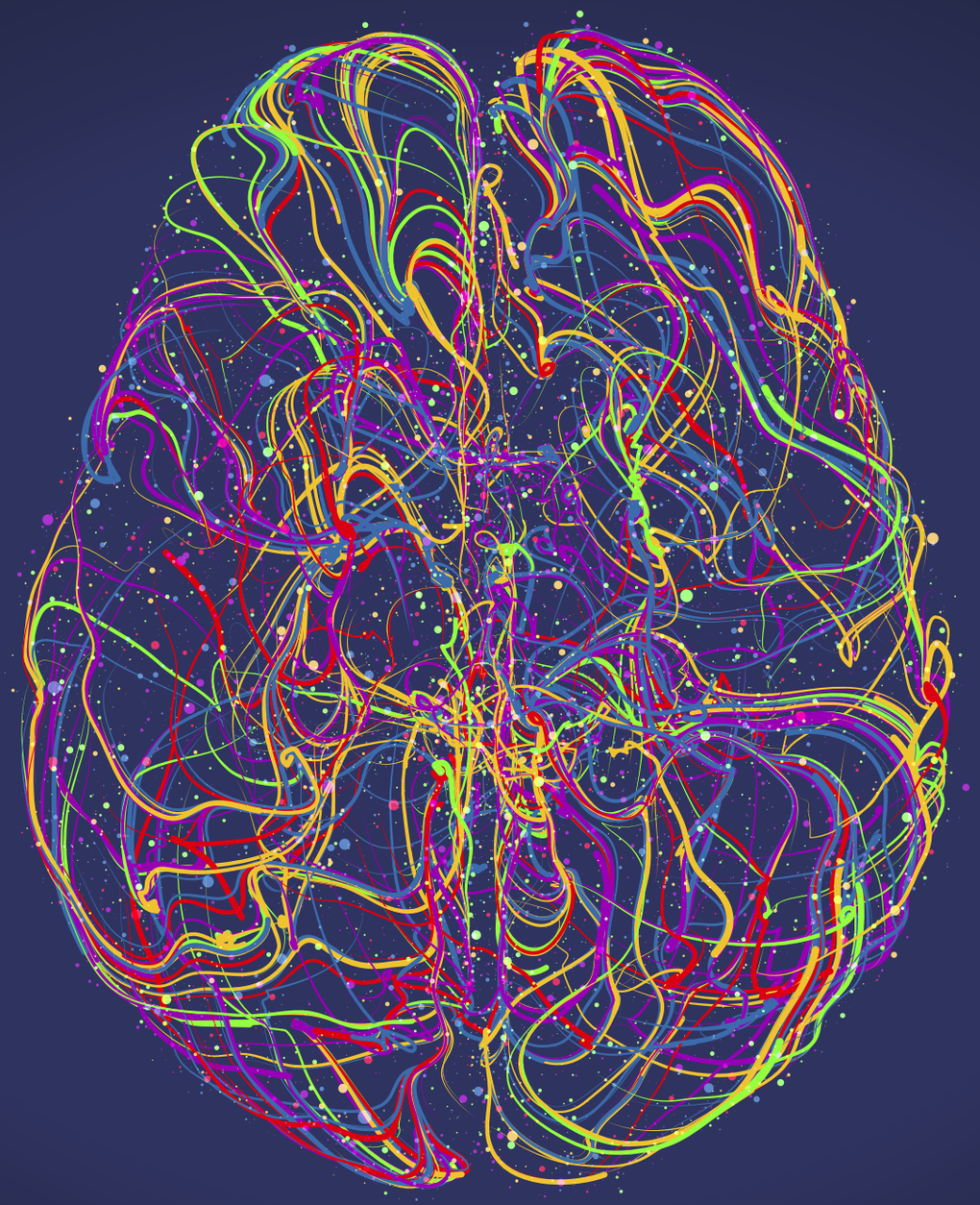

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0003 Clinical validation of patient-specific STN parcellation using 7T MRI: a DBS lead revision case
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0034 Patient-Specific Parcellations of DBS target structures at 7Tesla
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0004* Electroconvulsive therapy treatment responsive multimodal brain networks
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0021* Optogenetic stimulation of the mouse entorhinal cortex reshapes whole brain dynamics
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0027 Epidural Temporal Interference Stimulation for Minimally Invasive Electrical Deep Brain Stimulation
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0036 Correlation of fMRI with direct electrical stimulation in patients with left side brain gliomas
Steren Chabert[1,2], Alejandro Veloz[1,3], Gisella Tapia[4], Francisco Torres[4,5], Rodrigo Riveros[4,5], Begona Gongora[6,4], Matias Gonzalez[4,5], Carlos Bennett[4,5]
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Non-invasive Electrical/tDCS/tACS/tRNS

0011 Unified approach in TES and IES optimization applied to realistic head models
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0012 Concurrent fMRI-tACS: subject safety and the data quality evaluation
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0022 TACS-induced phase-specific modulation of striatal activity in bimanual visuomotor force tracking
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Conan Chen[1], Maryam Falahpour[1], Yixiang Mao[1], Vivek Sharma[2], Pankaj Sunkeri[2], Jason Sutor[2], John Hermiz[2], Kelly MacNiven[2], Gary Heit[2], Thomas Liu[1]
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0025 Effects of sub-threshold auricular vagus nerve stimulation on resting state functional connectivity
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0028 Optimal Rotation Angles of Permanent Magnets for Transcranial Static Magnetic Stimulation
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0050 Assessing the integrity and reorganization of the visual system after stroke by means of TMS-EEG
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Sonic/Ultrasound

0001 Skull aberration correction in ultrasound brain imaging
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0007 Longitudinal effects of non-invasive brain stimulation with ultrasound
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0008* Low Intensity Focused Ultrasound Selectively Increases Regional Perfusion
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0044 Acoustic Simulation to Understand Variability in Transcranial Ultrasound of Motor Cortex
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TDCS

0006 Transcranial direct-current stimulation enhances dopamine release and attentiveness
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0013 Transcranial direct-current stimulation induced changes in neural activity: an fNIRS pilot study
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0017 Network-targeting in transcranial direct current stimulation: Inter and intra individual variability
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0031 Modulating Operator Vigilance with Transcranial Direct Current Stimulation (tDCS)
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0033 Effects of bifrontal tDCS on brain metabolites in patients with MDD and healthy controls
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0035 Associations of grey matter volume and acute tDCS effects, shown by metabolite concentration changes

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0038 Effect of Transcranial Direct Current Stimulation in the first weeks after stroke: preliminary study

Marcela Takahashi[1], Joana Balardin[2], Paulo Bazán[2], Edson Júnior[2,3], Danielle Boasquevisque[4], Adriana Conforto[2,3]
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0052 Modulation of aggression by prefrontal transcranial direct current stimulation

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0053 Does tDCS induced GABA change depend on the participant specific electric field in M1?

Tulika Nandi[1], William Clarke[1], James Kolasinski[2], Taylor Hanayik[1], Emily Hinson[1], Adam Berrington[3], Velicia Bachtiar[4], Ainslie Johnstone[5], Oula Puonti[6], Heidi Johansen-Berg[1], Charlotte Stagg[1]
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0064 Assessing Brain Network Effects of Targeted Transcranial Direct Current Stimulation

Danielle Nadin[1,2], Marie-Hélène Boudrias[1], Stefanie Blain-Moraes[3,2]
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0066 Value of MRI based biophysical models of cortical tDCS fields in primary progressive aphasia

Clara Sanches[1], Michel Katchaturian[1], Dennis Truong[2], Marom Bikson[3], Lara Migliaccio[1], Marc Teichmann[1], Antoni Valero-Cabré[1]
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TMS

0005 Multi-band accelerated TMS/fMRI for continuous EPI during stimulation shows acute 10Hz TMS effects

Martin Tik[1], Michael Woletz[1], Anna-Lisa Schuler[1], David Linhardt[1], Matic Prinčič[2], Allan Hummer[1], Christian Windischberger[1]
[1]Medical University of Vienna, Vienna, Austria, [2]Medical University of Vienna, Vienna, Vienna

0020 Inputs at the optimum phase of beta cortical oscillations accelerate cortical synaptic transmission

Flavie Torrecillos[1,2], Emma Falato[3], Alek Pogosyan[1,2], Timothy West[1,2], Vincenzo Di Lazzaro[3], Peter Brow,[1,2]
[1]MRC Brain Network Dynamic Unit - University of Oxford, Oxford, United Kingdom, [2]Nuffield Department of Clinical Neurosciences - University of Oxford, Oxford, United Kingdom, [3]Università Campus Bio-Medico di Roma, Rome, Rome

0024 TMS Focality Optimization at the Inner Cortical Surface with Boundary Element Fast Multipole Method

Sergey Makarov[1,2], William Wartman[1], Gregory Noetscher[1], Tommi Raij[3], Mohammad Daneshzand[2], Kyoko Fujimoto[4], Aapo Nummenmaa[2]
[1]Worcester Polytechnic Institute, Worcester, MA, [2]Harvard Medical School, Boston, MA, [3]Shirley Ryan AbilityLab, Chicago, IL, [4]Center for Devices and Radiological Health, FDA, Silver Spring, MD

0029 Functional Connectivity Alterations with the Target: A Combined Resting-state fMRI-TMS study

Tingting Zhu[1,2], Xiaoyu Wang[1,2], Yating Lv[1,2]
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0032 The effects of rTMS on resting-state function connectivity in obese adults

Sehong Kim[1], Juhye Chung[1], Bo-yong Park[2], Hyunjin Park[3]
[1]The Catholic University of Korea, Seoul, Seoul, [2]Montreal Neurological Institute, McGill University, Montreal, Quebec, [3]School of Electronic and Electrical Engineering, Sungkyunkwan University, Suwon, Gyeonggido

0039 Cognitive Training with Information Based Neuromodulation to Enhance Working Memory

Heather Whittaker[1], Robert Zatorre[2], Sylvain Baillet[3], Philippe Albouy[4]
[1]McGill University, Montreal, Quebec, [2]Montreal Neurological Institute, Montreal, Québec, [3]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec, [4]Laval University, Quebec, Quebec

0045 MRS and TMS Measurements Predicting Responses Following Non-Invasive Brain Stimulation of M1

Jean-Marc Therrien-Blanchet[1], Marie Ferland[2], Sébastien Proulx[3], Hugo Théoret[4]
[1]Université de Montréal, Montreal, Quebec, [2]Université de Montréal, Montréal, Québec, [3]McGill, Montréal, QC, [4]University of Montreal, Montreal, Quebec

0047 Toward State-of-the-Art Connectivity-Guided TMS: Personalization, Precision & Clinical Response

Robin Cash[1], Luca Cocchi[2], Jinglei Lv[1], Paul Fitzgerald[3], Andrew Zalesky[1]
[1]University of Melbourne, Melbourne, Victoria, [2]QIMR Berghofer, Brisbane, QLD, [3]Epworth Healthcare and the Monash University Central Clinical School, Melbourne, Victoria

0051 Improving cortical language mapping by means of paired-pulse and high-frequent repetitive TMS

Charlotte Nettekoven[1], Julia Pieczewski[1], Denise Klütsch[1], Kristina Jonas[2], Roland Goldbrunner[1], Carolin Weiß Lucas[1]
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0054 Impact of sham TMS periodical auditory stimulation on cortical oscillations and visual detection
Chloé Stengel[1], Adrien Martel[1], Julian Amengual[2], Antoni Valero-Cabré[1,3,4]
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0055* BEST Toolbox: Brain Electrophysiological recording & STimulation Toolbox
Umair Hassan[1], Steven Pillen[1], Christoph Zrenner[2], Til Ole Bergmann[1]
[1]Deutsches Resilienz Zentrum (DRZ), Mainz, Germany, [2]Department of Neurology & Stroke, & Hertie Institute for Clinical Brain Research, Tübingen, Germany

0058 The effect of short-term arm immobilization on intracortical inhibition and motor skill learning
Erin King[1], Martin Tan[1], Michael Borich[1]
[1]Emory University, Atlanta, GA

0060* An optimization approach to TMS targeting of functional ROIs informed by field modelling
Jerrold Jeyachandra[1], Erin Dickie[2], Zafiris Daskalakis[3], Daniel Blumberger[3], Colin Hawco[1], Zhi-De Deng[4], Aristotle Voineskos[1]
[1]Centre for Addiction and Mental Health, Toronto, Ontario, [2]Centre for Addiction and Mental Health, University of Toronto, Toronto, Ontario, [3]The Centre for Addiction and Mental Health, Toronto, Ontario, [4]Noninvasive Neuromodulation Unit, National Institute of Mental Health, Bethesda, MD

0070 TMS Mapping using Active Inference for Spatial Sampling via User Guidance and Gaussian Processes
Mathew Yarossi[1], Razieh Faghihpirayesh[1], Daniel Tanis[2], Gregory Ames[3], Sergei Adamovich[4], Dana Brooks[1], Deniz Erdogmus[1], Eugene Tunik[1]
[1]Northeastern University, Boston, MA, [2]NYIT College Of Osteopathic Medicine, Glen Head, NY, [3]Kessler Foundation Research Center, West Orange, NJ, [4]New Jersey Institute of Technology, Newark, NJ

Non-Invasive Stimulation Methods Other

0015 Hypoxia-induced changes in EEG connectivity: effects of somatosensory entrainment
Alejandro Weinstein[1], Grace Whitaker[1], Pavel Prado[2], Lucía Zepeda[1], José Ignacio Mendez[3], Wael El-Deredy[1]
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0019 Somatosensory evoked potentials in post-stroke spasticity and their modulation by botulinum toxin
Tomas Veverka[1], Pavel Otruba[1], Jana Zapletalová[1], Petr Kaňovský[1], Petr Hluštík[1]
[1]Palacky University and University Hospital, Olomouc, Czechia

0057 Neurofeedback Training for Optimizing Archer's Performance
Poyu Chen[1], Szu-Yuan Chen[2], Lung-Hung Chen[3], Chih-Hao Chiu[4]
[1]Department of Occupational Therapy, Chang Gung University, Taoyuan, Taiwan, [2]Graduate Institute of Athletics and Coaching Science, National Taiwan Sport University, Taoyuan, Taiwan, [3]Department of Recreation and Leisure Industry Management National Taiwan Sport University, Taoyuan, Taiwan, [4]Department of Orthopedic Surgery, Chang Gung Memory Hospital, Taoyuan, Taiwan

0069* Entrainment of theta oscillations with visual rhythmic stimulation boosts auditory working memory
Philippe Albouy[1], Robert Zatorre[2], Sylvain Baillet[3]
[1]Laval University, Quebec, QC, [2]Montreal Neurological Institute, Montreal, Québec, [3]McGill University, Montreal

DISORDERS OF THE NERVOUS SYSTEM

Neurodegenerative/ Late Life (eg. Parkinson's, Alzheimer's)

0074 Voxel-Based Quantitative MRI reveals spatial patterns of grey matter alteration in MultipleSclerosis
Christophe Phillips[1], Pierre Maquet[2], Emilie Lommers[1]
[1]University of Liege, Liège, Belgium, [2]University of Liège, Liège, Belgium

0079 Mechanisms underlying speech production in patients with cerebellar stroke damage
Sharon Geva[1], Letitia Schneider[1], Thomas Hope[1], Shamima Khan[1], Andrea Gajardo-Vidal[1], Diego Lorca-Puls[1], Oiwi Parker Jones[2], Susan Prejawa[3], Marion Oberhuber[1], David Green[1], Cathy Price[1]
[1]University College London, London, London, [2]University of Oxford, Oxford, Oxford, [3]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Leipzig

0086 Association between Cerebral Blood Flow and White Matter Signal Abnormalities in MCI
Chanmie Kim[1], David Salat[1]
[1]MGH/MIT/HMS Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA

0092 Cognitive impairment resting-state fMRI markers in elderly
Karen Aguilar Mateu[1], Ana Castro Laguardia[2], Jorge Llibre[3], Rosa Morgade Fonte[2], María Bobes-León[2]
[1]Cuban Center for Neuroscience, Havana, Cuba, [2]Cuban Center for Neuroscience, Havana, Cuba, [3]National Institute of Neurology and Neurosurgery, Havana, Cuba

0093 Dynamic functional connectivity and dopaminergic treatment in Parkinson's disease
María Díez-Cirarda[1], Iñigo Gabilondo[2], Naroa Ibarretxe-Bilbao[3], Juan Carlos Gomez-Esteban[2], Jinhee Kim[1], Olaia Lucas-Jiménez[3], Rocio del Pino[2], Javier Peña[3], Natalia Ojeda[3], Alexander Mihaescu[1], Mikaeel Valli[1], Maria Angeles Acera[2], Alberto Cabrera[4], Maria Angeles Gomez-Beldarrain[5], Antonio Strafella[1]
[1]Centre for Addiction and Mental Health, Toronto, Canada, [2]BioCruces Health Research Institute, Bilbao, Spain, [3]University of Deusto, Bilbao, Spain, [4]OSATEK MR Unit, Bilbao, Spain, [5]Neurology Service, Hospital of Galdakao, Bilbao, Spain

0095 Mild Traumatic Brain Injury Patients Exhibit Alterations in Cortical Lamination Patterns
Omri Tomer[1], Galia Tsarfaty[2], Sarel Shlomo[2], Raffaella Bodini[2], Niv Tik[1], Yaniv Assaf[1], Abigali Livny[2]
[1]Tel Aviv University, Tel Aviv-Yafo, Israel, [2]Sheba Medical Center, Tel-Hashomer, Israel

0096 Effect of initial concentrations on a computational model of tau aggregation in tauopathies
Arsalan Rahimabadi[1], Jean-Paul Soucy[1,2], Habib Benali[1]
[1]PERFORM centre, ECE Department, Concordia University, Montreal, QC, Canada, [2]Montreal Neurological Institute, Montreal, QC, Canada

0097 Dynamic fMRI gives insight into neuromodulatory basis of fluctuating cognition in Lewy body dementia
Elie Matar[1], Kaylena Ehgoetz Martens[2], Joseph Phillips[3], Gabriel Wainstein[4], Glenda Halliday[1], Simon Lewis[1], James 'Mac' Shine[1]
[1]University of Sydney, Sydney, New South Wales, [2]University of Waterloo, Waterloo, Ontario, [3]University of Western Sydney, Sydney, New South Wales, [4]Universidad Católica de Chile, Santiago, Region Metropolitana

0099 Progression of Cortical Thinning in Parkinson's Disease
Andrew Vo[1], Christina Tremblay[1], Shady Rahayel[1], Yvonne Yau[1], Alain Dagher[1]
[1]Montreal Neurological Institute, Montreal, Quebec

0100 A multimodal computational model of Parkinson's disease progression enriched for dementia risk

Neil Oxtoby[1], Louise-Ann Leyland[2], Leon Aksman[3], Peter Wijeratne[4], George Thomas[2], Emma Bunting[5], Fiona Bremner[6], Anette Schrag[7,8], Daniel Alexander[4], Rimona Weil[2,9,8]
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0104 A DTI Study in Subcortical Vascular Mild Cognitive Impairment with or without Depressive Symptoms

Ziyun Xu[1,2], Jianjun Wang[3], Hanqing Lyu[4], Qingmao Hu[1,2]
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0105 Reduced Microstructural Integrity and Altered Structural Network in Cerebral Small Vessel Disease

Mingxian Zhang[1], Nan Yang[2], Sina Chen[2], Jinhui Li[1], Haishan Yuan[1], Yu Guo[1], Qinyuan Chen[3], Yichen Zhang[1], Ruiwang Huang[1,3]
[1]Center for Study of Applied Psychology, School of Psychology, South China Normal University, Guangzhou, China, [2]Zhongshan Hospital of traditional Chinese Medicine, Zhongshan, China, [3]Institute for Brain Research and Rehabilitation, South China Normal University, Guangzhou, China

0106 Degeneration of Structural Brain Networks is Associated with Cognitive Decline after Ischemic Stroke

Hsiao-ju Cheng[1], Michele Veldsman[2,3], Fang Ji[1], Emilio Werden[3], Mohamed Khlif[3], Kwun Kei Ng[1], Joseph Lim[1], Xing Qian[1], Haoyong Yu[1], Juan Zhou[1,4], Amy Brodtmann[3]
[1]National University of Singapore, Singapore, Singapore, [2]University of Oxford, Oxford, UK, [3]University of Melbourne, Melbourne, Australia, [4]Duke-NUS Medical School, Singapore, Singapore

0107 Genetic, Cellular and Topological Characterization of Human Brain Regions Commonly Plagued by Glioma

Ayan Mandal[1], Rafael Romero-Garcia[1], Michael Hart[1], John Suckling[1]
[1]University of Cambridge, Cambridge, Cambridgeshire

0109 Improved Memory-related Gamma Rhythms in Origami but not Reading Intervention among Older Adults

Yang Jiang[1], Tyler Hammond[1], Tharunika Venkatesan[1], Sylvia Cerel-Suhl[1], Shoshana Bardach[1], Xiaopeng Zhao[2], Jing Xiang[3], Gregory Jicha[1]
[1]University of Kentucky, Lexington, KY, [2]University of Tennessee, Knoxville, TN, [3]University of Cincinnati, Cincinnati, OH

0113 Quantitative susceptibility mapping in the motor cortex in limb-onset Amyotrophic Lateral Sclerosis

Anjan Bhattarai[1,2], Zhaolin Chen[2], Phillip Ward[2], Paul Talman[3], Susan Mathers[4], Thanh Phan[5], Caron Chapman[4], James Howe[4], Sarah Lee[4], Yennie Lie[4], Gary Egan[2], Phyllis Chua[1,4]
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0114 Diagnosis of Parkinson's disease with convolutional neural network

Jie Mei[1], Cécilia Tremblay[2], Jason Steffener[3], Johannes Frasnelli[1]
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0115 Structural connectivity loss & regional gene expression explain dementia risk in Parkinson's disease

Angeliki Zarkali[1], Peter McColgan[2], Mina Ryten[3], Regina Reynolds[4], Louise-Ann Leyland[5], Andrew Lees[6], Geraint Rees[7], Rimona Weil[5]
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0116 Network controllability and regional gene expression explain visual hallucinations in Parkinson's

Angeliki Zarkali[1], Peter McColgan[2], Mina Ryten[3], Regina Reynolds[4], Louise-Ann Leyland[5], Andrew Lees[6], Geraint Rees[7], Rimona Weil[5]
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0121 Characteristic functional Traits of Mild cognitive impairment in Parkinson's disease

Vicente Ferrer Gallardo[1], Manuel Delgado[2,3], Irene Navalpotro[4], Stefano Moia[1,5], Manuel Carreiras[1,5,6], María Cruz Rodriguez-Oroz[1,7,6], Cesar Caballero-Gaudes[1]
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0128 Extra-Striatal Dopamine in Parkinsons Disease with Rapid Eye Movement Sleep Behaviour Disorder

Mikaeel Valli[1], Sang Soo Cho[2], Yuko Koshirmori[3], María Díez-Cirarda[4], Jinhee Kim[5], Alexander Mihaescu[3], Antonio Strafella[5]
[1]CAMH, Toronto, Ontario, [2]Johns Hopkins Medicine, Baltimore, MD, [3]CAMH, Toronto, ON, [4]CAMH, Toronto, Ontario, [5]Centre for Addiction and Mental Health, Toronto, Ontario

0129 Redundant and Complementary Information in Visual Ratings and Volumetric Measures of Atrophy
Ahmed Abdulkadir[1,2], Patric Wyss[1], Stefan Klöppel[1], David Ginsbourger[3,4]
[1]University Hospital of Old Age Psychiatry and Psychotherapy, University of Bern, Bern, Switzerland, [2]Department of Radiology, University of Pennsylvania, Philadelphia, PA, [3]Idiap Research Institute, Martigny, Switzerland, [4]Institute of Mathematical Statistics and Actuarial Science, University of Bern, Bern, Switzerland

0130 Resting state functional connectivity of cerebellar networks in Parkinson's disease
William Palmer[1], Brenna Cholerton[2], Cyrus Zabestian[1], Thomas Montine[2], Thomas Grabowski[1], Swati Rane[1]
[1]University of Washington, Seattle, WA, [2]Stanford University, Stanford, CA

0131 Functional brain networks are associated with blood neurofilament light chain in Alzheimer disease
Muriah Wheelock[1], Jeremy Strain[1], Beau Ances[1], Oliver Preische[2], John Morris[1], Randall Bateman[1], Mathias Jucker[2], Tammie Benzinger[1], Adam Eggebrecht[1], Brian Gordon[1], the Dominantly Inherited Alzheimer Network[1]
[1]Washington University in St. Louis, St. Louis, MO, [2]University of Tubingen, Tubingen, Baden-Württemberg

0133 Graph theory analysis of dopamine D2 network in Parkinson's disease patients with cognitive decline
Alexander Mihaescu[1], Jinhee Kim[2], Sang Soo Cho[3], Mikaeel Valli[4], María Díez-Cirarda[5], Antonio Strafella[2]
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0134 Applying CARE index Model for Identifying Individual Patient Progressing to Alzheimer's Disease
Xiang Lu[1], Jiu Chen[2], Hao Shu[1], Zhijun Zhang[1]
[1]Department of Neurology, Affiliated ZhongDa Hospital, School of Medicine, Southeast University, Nanjing, Jiangsu, [2]Institute of Neuropsychiatry, The Affiliated Brain Hospital of Nanjing Medical University, Nanjing, Jiangsu

0137 Impact of Brain Injury on Dementia: Preliminary Results from a Pakistani Cohort
Muhammad Parvaz[1], Fatima Mubarak[2], Emily Dennis[3], Syed Enam[2], Paul Thompson[4], Xiaojian Kang[5], Adeel Razi[6], Maheen Adamson[7]
[1]Icahn School of Medicine at Mount Sinai, New York, NY, [2]Aga Khan University, Karachi, Sindh, [3]University of Utah, Salt Lake City, UT, [4]University of Southern California, Los Angeles, CA, [5]Defense and Veterans Brain Injury Center (DVBIC) VA Palo Alto, CA, Palo Alto, CA, [6]Monash University, Clayton, Victoria, [7]DVBIC, VA Palo Alto/Stanford School of Medicine, Union City, CA

0138 Modeling Cognitive Scores from Normal Aging to Alzheimer's Disease Based on structural MRI and PET
Seyed Hani Hojjati[1,2], Abbas Babajani-Feremi[3,4,5]
[1]Department of Pediatrics, University of Tennessee Health Science Center, Memphis, USA, [2]Neuroscience Institute, Le Bonheur Children's Hospital, Memphis, USA, [3]Department of Pediatrics, University of Tennessee Health Science Center, Memphis, TN, USA, Memphis, TN, [4]Neuroscience Institute, Le Bonheur Children's Hospital, Memphis, TN, [5]Department of Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN

0140 The geometric microstructural damage of white matter with functional compensation in stroke patients
Haichao Zhao[1], Tao Liu[1], Jian Cheng[1], Zixiao Li[2], Jiyang Jiang[3], Wei Wen[4], Perminder Sachdev[5], Yongjun Wang[2]
[1]Beihang University, Beijing, Beijing, [2]Beijing TianTan Hospital, Capital Medical University, Beijing, Beijing, [3]University of New South Wales, Sydney, New South Wales, [4]Centre for Healthy Brain Ageing, School of Psychiatry (CHeBA), University of New South Wales, Sydney, Sydney, [5]Centre for Healthy Brain Ageing (CHeBA), School of Psychiatry, University of New South Wales, Sydney, NSW

0145 Patterns of default mode network co-activation in young APOE ε4-carriers: an HCP replication study
Lara Mentink[1,2], João Guimarães[2], Emma Sprooten[2], Marcel Olde Rikkert[1,2], Koen Haak[2], Christian Beckmann[2,3]
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0151* Changes in functional connectivity associated with vascular burden in person at-risk of AD
Theresa Köbe[1], Alexa Pichet Binette[1], Jacob Vogel[1], Pierre-François Meyer[1], John Breitner[1], Judes Poirier[1], Sylvia Villeneuve[1]
[1]McGill University, Montréal, Quebec

0154 Comparison of voiding networks during urodynamic task and rest at 7T MRI in Multiple Sclerosis women
Zhaoyue Shi[1], Christof Karmonik[1], Khue Tran[2], Rose Khavari[2]
[1]Houston Methodist Research Institute, Houston, TX, [2]Houston Methodist Hospital, Houston, TX

0161 Functional network redundancy in healthy aging and mild cognitive impairment
Stephanie Langella[1], Kelly Giovanello[1], Peter Mucha[1], Eran Dayan[1]
[1]UNC-Chapel Hill, Chapel Hill, NC

0163 Trajectories of neuroanatomical changes in transgenic models of Alzheimer's disease
Marina Blūma[1], Edoardo Micotti[2], Daniele Tolomeo[2], Gianluigi Forloni[2], Claudio Babiloni[1]
[1]Department of Physiology and Pharmacology "Vittorio Erspamer", Rome, Italy, [2]Department of Neuroscience, IRCCS Instituto di ricercar Farmacologiche, 'Mario Negri', Milan, Italy

0169 Network-based functional imaging output in multiple sclerosis correlates with disease progression
Florence Chiang[1], Rebecca Romero[1], Larry Price[2], Peter Fox[1]
[1]University of Texas Heath Science Center at San Antonio, San Antonio, TX, [2]Texas State University, San Marcos, TX

0171 Cortical atrophy and cerebral metabolite concentrations in individuals with chronic stroke
Jennifer Ferris[1], Jason Neva[2], Irene Vavasour[1], Kaitlin Attard[1], Katie Wadden[3], Alex MacKay[1], Lara Boyd[1]
[1]The University of British Columbia, Vancouver, BC, [2]Université de Montréal, Montreal, QC, [3]Memorial University, St John's, NL

0174 Dopaminergic medication alters brain connectivity in Parkinson's disease with freezing of gait
Alexandra Potvin-Desrochers[1], Alisha Atri[1], Thomas Gisiger[2], Caroline Paquette[3]
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0178 Hippocampal Subfield Volumes in Post-Stroke Dementia
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0179 Harmonization of the multi-center imaging protocol on cerebral small vessel disease in China
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0180 Links of Enlarged Perivascular Spaces to Age Related Neuropathologies and Cognitive Decline
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0181* Generalizable, reproducible, and interpretable imaging biomarkers for Alzheimer's disease
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0182 Cerebral hemodynamic responses of subjective cognitive decline evoked by loaded N-back tasks
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0186 Alpha power and functional connectivity in mild cognitive impairment
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0192 Iron overload in Substantia Nigra of REM Sleep Behavior Disorder and Parkinsons dDiseas Patients
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0195 Deep learning-based biomarkers for early detection of Parkinsons dDiseas (PD)
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0198 Effects of combination antiretroviral therapy on gray matter volume and cortical thickness of HIV
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0201 Cerebral amyloid angiopathy is associated with decreased functional brain connectivity.
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0202 Tract-Based Spatial Statistics of Cerebral Small Vessel Disease in an HIV Population
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0205 Elucidating Scans Without Evidence of Dopaminergic Deficiency: A Tractography Study
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0207 Effects of Traumatic Brain Injury on motor imagery of BA4a and BA4p
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0209 Neuropsychological and Neuroimaging Study of Thalamic Nuclei Degeneration in Multiple Sclerosis
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0211 Large-scale functional connectivity alterations in Amyotrophic Lateral Sclerosis:A multicenter study

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0213 Network-level functional connectivity correlates of everyday memory in Parkinson disease

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0215 The longitudinal relationship of thalamic volume and memory in Multiple Sclerosis

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0217 Differentiating the Dopaminergic Midbrain Nuclei in Parkinson's Disease Using Iron Imaging

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0218* Network Diffusion Model Enhances Predictions of Future Tau-PET Burden in Alzheimer's Patients

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0219 Validation of an epidemic spreading model to simulate Aβ spread in familial Alzheimer's disease

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0220 Gene-brain-behavior continuums across neurodegenerative disorders in ONDRI

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0225 Dynamic Connectivity within the Default Mode Network across the Alzheimer's Disease Spectrum

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0227 Atrophy Progression Revealed by Causal Network of Structural Covariance in Alzheimer's Disease

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0231 Continued neurodegeneration of the left inferior frontal gyrus after post-stroke aphasia

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0232 Complement and NfL associations with brain structure and functional connectivity alterations in GRN

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0234 Distinct fiber-specific white matter reductions pattern in early- and late-onset Alzheimer's disease

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0235 Validation of a Novel Method for conceptualizing cognitive reserve using Multi-modal neuroimaging

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0240 Neural-Referred Visual Receptive Field Properties in Posterior Cortical Atrophy

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0242 Prediction of Cognitive Performance in Old Age from Spatial Probability Maps of White Matter Lesions

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0246 The Association Between Cognitive Impairment and Structural and Functional Brain Organization in ALS

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0248 A Brain Signature of Prodromal Lewy Body Dementia

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0249 Network changes underlying cognitive decline in multiple sclerosis: an anatomofunctional MRI study

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0252 Mega-Analysis Shows Brain Structure Abnormalities Related to Disease Severity in Parkinsons dDiseas

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0253 Brain iron deposition tracks cognitive severity in Parkinson's disease

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0255 Determining the role of neuromodulatory impairment in Freezing of Gait in Parkinsons dDiseas

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0263 Characterization and diagnostic potential of automated tractography in multiple system atrophy

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0267 Physiological pulsations in brain are markedly elevated in Alzheimer's disease

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0269 Linking behavioural and neuroimaging features of Parkinson's disease

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0270 Obesity is associated with reduced orbitofrontal cortex volume: a coordinate-based meta-analysis

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0271 Using coupling measures to separate electromyography signals from tremor in ET and PD

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0273 Parkinson's disease affects neural control of step-by-step gait adjustments

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0274 The visual ventral network is disconnected in Lewy body dementia with visual hallucinations

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0275 Sensorimotor network control in Parkinson's disease, a dynamic functional connectivity study
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0276 A Diffusion Tensor Imaging Study on Assessing the Recovery of Spinal Cord After Injury
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0279 A small-scale explorative study on resting state effective connectivity in Alzheimer's disease
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0281 Associations of poly(GP), NfL and functional network alterations in C9orf72 expansion carriers
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0285 Impact of Depressive Symptoms on Alzheimer's Disease: A Spectral Dynamic Causal Modelling Study
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0286 A Clustering Analysis of MS Lesions with T1-&T2-weighted, Diffusion, QSM, and MTR Imaging
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0291 Resting state fMRI reveals evidence of cerebellar cholinergic impairments in Gulf War Illness
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0295 Imbalanced Dual Systems of Decision Making in Stroke
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0297 Evaluating the influence of dopamine on limbic network connectivity at rest in Parkinson's patients
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0298 Longitudinal Change in Brain Region Functional Integration in Subjective Cognitive Decline
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0303 Functional brain network analysis using minimum spanning trees in Parkinson's disease: an MEG study.
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0305 Enhanced Detection of Cortical Degeneration from MRI using Surface Strain Minimization
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0306 Individual Variability in Age-related Locus Coeruleus MRI Intensity is due to Alzheimer Pathology
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0309 Spatiotemporal imaging phenotypes of tau pathology in Alzheimer's disease
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0310 Effects of Alzheimer's disease and healthy aging on cerebellar functional organisation and structure
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0312 Short and long-term functional connectivity differences associated with Alzheimer's progression
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0315 Identifying lifestyle factors that promote brain resilience in carriers of two ApoE4 risk variants
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0318 Hippocampal dynamic functional brain networks in Alzheimer's disease
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0320 Local Functional Brain Connectivity Changes after an Exercise Intervention in Multiple Sclerosis
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0323 Hippocampal subfield volumes distinguish ischemic stroke patients from healthy individuals better
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0329 Hippocampal Microstructural Abnormalities in Cognitively Impaired and Amyloid Positive Individuals
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0330 Baseline brain amyloid burden predicts cognitive decline in subjective cognitive decline
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0332 Brain aging in Parkinson's disease related to disease duration, cognitive and motor impairment
Claudia Eickhoff[1], Felix Hoffstaedter[2], Julian Caspers[3], Christian Mathys[4], Kathrin Reetz[5], Imis Dogan[5], Katrin Amunts[6], Alfons Schnitzler[1], Simon B Eickhoff[7]
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0333 Cardiovascular Brain Impulse in Alzheimer's Disease
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0334 Connectivity-based segmentation of the subthalamic nucleus
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0336 Brain tissue iron and regional gene expression relate to risk of dementia in Parkinson's disease
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0339 Striatal somatotopic denervation and functional reorganization in de novo Parkinson's disease
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0340 Optimizing parameters choice for BIANCA on multimodal MRI images in multiple sclerosis.
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0342 A noradrenergic role in Parkinson's disease reinforcement learning – 7T imaging and atomoxetine
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0343 Vascular disruptions in the tau pathology model of Alzheimer disease (rTg4510 mouse)
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0345 Radiomic feature as new biomarker for Alzheimer's disease: a study based on amyloid PET
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0346 Altered topological organization of morphological brain networks in individuals with SCD
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0348 Interoceptive prediction in behavioural variant frontotemporal dementia using SCR
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0352 Tracking cortical reorganization during motor recovery after stroke
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0354 Association between functional connectivity and sleep quality and fatigue in multiple sclerosis
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0361 Cerebral regional perfusion patterns associated with antidepressants in REM sleep behavior disorder

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0367 Microglial activation and brain networks in Alzheimer's disease: The ActiGliA cohort study

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0368 Cognitive Reserve Moderates Functional Connectivity Changes in resting-state

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0369 Functional connectivity changes in cortex connected to pontine lesions correlate with motor recovery

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0372 The Temporal Relationship between White Matter Hyperintensities, Neurodegeneration, and Cognition

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0375 Parkinson's disease polygenic risk score and brain structure in neurologically healthy individuals

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0378 Frontal and Basal Ganglia Connectivity are Associated with Parkinsons dDiseas Progression

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0380 Multimodal Brain Associations with Clinical Profiles and Treatment Effects in Parkinsons dDiseas

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0381 Comparison of Human Hippocampal Volumes and BOLD Values of Two Independent Manual Segmentations

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0389 Disentangling Neural Correlates of the Alien Limb in Corticobasal Syndrome with Multimodal MRI

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0392 Identifying Parkinson's disease using machine-learning on multi-modal MRI

Christian Rubbert[1], Christian Mathys[2], Christiane Jockwitz[3], Christian Hartmann[4], Simon B Eickhoff[5], Felix Hoffstaedter[6], Svenja Caspers[7], Claudia Eickhoff[8], Nikolas Teichert[1], Martin Südmeyer[9], Bernd Turowski[1], Alfons Schnitzler[8], Julian Caspers[10]
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0401 The Impact of Multiple Sclerosis Lesion Tract Burden on the Cortex

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0403 Structural gray matter network-based measures correlate with clinical measures in patients with MS

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0404 Integrity of the Locus Coeruleus in Alzheimer's Disease revealed by Neuromelanin-Sensitive MRI

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0407 Baseline Hippocampal Grading Predicts Cognitive Decline in Subjects with Mild Alzheimer's Disease
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0409 White matter alterations in a preclinical APP knock-in mouse model of Alzheimer's disease using DTI
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0415 Brain atrophy progression after four years in de novo Parkinson's disease: a longitudinal study
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0417 Cerebral glucose metabolism in different ALS genotypes
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0422 DTI-ALPS index reveals age-related glymphatic system impairment in epilepsy following TBI
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0427 Accelerated brain ageing predicts a future diagnosis of dementia
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0436 Brain age through a deep learning approach a biomarker of early-onset Alzheimer's disease phenotypes
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0439 Imaging markers of neuropsychiatric profiles in Friedreich ataxia
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0440 The dual cognitive syndrome hypothesis in Parkinson's disease: volumetric and morphological features
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0444 Association of mild cognitive impairment and hippocampal shape across five cohorts
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0445 Degenerative cervical myelopathy leads to neuroplasticity of the cervical spinal cord and the brain
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0447 Distinct functional connectivity patterns in Primary and Secondary Progressive Multiple Sclerosis
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0448 Multidimensional Diffusion MRI to Assess Microscopic Anisotropy and Kurtosis in Multiple Sclerosis
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0452 Precision Medicine in Post–Concussion Syndrome Using Computational Models
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0458 Delayed correlation analyses are sensitive to functional network changes in Parkinson's disease
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0459 Atlas-based in vivo Measurement of Human Locus Coeruleus in Neurodegenerative Disorders with 7T MRI
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0461 Dynamic functional connectivity markers of cognitive impairment in Parkinson's disease

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0463 Brain aging, estrogen, and APOE genotype

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0465* Discovering Propagation Pattern of Neurodegeneration across Brain Networks

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0468 Modeling Central Olfactory Network Alteration in Type 2 Diabetes: From Primary to Advanced Cortex

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0469 Serum matrix metalloproteinase-9 is related to grey matter atrophy in REM sleep behavior disorder

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0472 Alteration of Frontal-Executive and Corticolimbic Circuits in Late-Life Depression and Relationship

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0474* Advanced vs. resilient brain aging in a harmonized cohort of 29,841 MRIs; the iSTAGING consortium

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0476 Prefrontal GABA Concentration Correlates with Memory in Older Adults at Risk for Alzheimer's Disease

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0482 Progressive cerebral degeneration detected by MR spectroscopy in clinical subtypes of ALS

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0487 Multimodal Imaging Hippocampal Neurodegeneration and Functional Connectivity in AD

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0491 Shape analysis of hippocampal subfields in patients with mild cognitive impairment

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0493 Similar Cerebral Neurodegradation Between Mild Traumatic Brain Injury and Alzheimer's Disease
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0496 White Matter Integrity in Hemodialysis Patients
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0497 Neuroimaging Biomarkers of Longitudinal Changes in Former Athletes with Multiple Concussions.
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0498 Amygdala-related functional connectivity change in idiopathic REM sleep behavior disorder
Heejung Kim[1], Jee-Young Lee[1], Yu Kyeong Kim[1], Hyunwoo Nam[1], Sang Jeong Kim[2], Beomseok Jeon[2]
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0500 Changes in three-tissue microstructural compositions of normal-appearing white matter after stroke
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Neurodevelopmental/ Early Life (eg. ADHD, autism)

0071 Association of higher right thalamus functional connectivity with the emergence of ADHD in children
Felipe Almeida Picon[1], João Ricardo Sato[2], Giovanni Abrahão Salum[1], Maurício Anés[1], Marco Del Aquilla[3], Mario Pedro Pan[3], André Zugman[3], Luciana de Moura[3], Ary Gadelha[3], Euripedes Constantino Miguel[4], Andrea Parolin Jackowski[3], Rodrigo Affonseca Bressan[3], Luis Augusto Paim Rohde[1]
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0078 An fMRI Study on Developmental differences between children and adults with ADHD
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0081 Structural Connectivity Deficits Following Therapeutic Hypothermia for Neonatal Encephalopathy
Arthur Spencer[1], Jonathan Brooks[1], Hollie Byrne[1], Richard Lee-Kelland[1], Sally Jary[1], James Tonks[1], Naoki Masuda[2], Ela Chakkarapani[1]
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0084 Adjusting for Allometric Scaling in ABIDE I Challenges Subcortical Volume Differences in Autism
Camille Williams[1], Hugo Peye[2], Roberto Toro[3], Anita Beggiato[3], Franck Ramus[4]
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0090 Shared & unique network features predict cognition, mental health and personality in childhood
Jianzhong Chen[1], Angela Tam[1], Valeria Kebets[1], Leon Qi Rong Ooi[1], Scott Marek[2], Nico Dosenbach[2], Danilo Bzdok[3], Avram Holmes[4], B.T. Thomas Yeo[1]
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0091 Neuroimaging predicts personalized motor function after perinatal stroke: A machine learning study
Helen Carlson[1], Brandon Craig[1], Jacquie Hodge[1], Deepthi Rajashekar[1], Pauline Mouches[1], Nils Forkert[2], Adam Kirton[3]
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0094 Accounting for motion in fMRI: What part of the spectrum are we characterizing in autism and ADHD?
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0101 Sensory perception in autism: An ALE meta-analysis of task-based fMRI studies
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0102 Resting-state fMRI correlates of clinical response to stimulants in youth with ADHD
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0110 The association of brain volumes with early life outcome in the Developing Human Connectome Project
Oliver Gale-Grant[1], Ralica Dimitrova[1], Lucilio Cordero-Grande[2], Andreas Schuh[1], Anthony Price[2], Katy Vecchiato[1], Andrew Chew[1], Nicholas Harper[1], Shona Falconer[1], Emer Hughes[1], Jonathan O'Muircheartaigh[1], Serena Counsell[1], Daniel Rueckert[3], Steve Smith[4], Joseph Hajnal[1], David Edwards[1], Dafnis Batalle[1]
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0111 Tracking network mechanisms of executive dysfunction in epilepsy: a task-based dynamic fMRI analysis

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0122 A cross-species link between mTOR-dependent hyperactivity and functional over-connectivity in autism

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0124 Implementation of a pre- and in-scan system to reduce head motion in pediatric participants with ASD

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0136 Effect of Polygenic Risk for Autism on Salience Network Functional Connectivity

Katherine Lawrence[1], Leanna Hernandez[1], Emily Fuster[1], Namita Padgaonkar[1], Genevieve Patterson[1], Jiwon Jung[1], Nana Okada[1], Jennifer Lowe[1], Jackson Hoekstra[1], Shulamite Green[1], Susan Bookheimer[2], Daniel Geschwind[1], Mirella Dapretto[1]
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0141 Functional Brain Networks and Neurodevelopmental Outcomes in Children with Congenital Heart Disease

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0142 Detecting tissue abnormalities in childhood epilepsy with developmental models of clinical MRI

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0143 Unveiling the comorbidity between DBD and ADHD: Combined meta-analyses and predictive modeling

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0149 A longitudinal, multimodal investigation of maternal immune activation in mice

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0155 The Role of Parental BMI on the Dorsolateral Prefrontal Cortex Food Cue Reactivity in Children

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0156 Structural Connectome in Pediatric Mild Head and Orthopedic Injury Compared to Typical Development

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0158 Diffusion MRI at Term and Prediction of Neurodevelopment at Three Years in Very Preterm Infants

Milan Parikh[1], Ming Chen[2,3], Adebayo Braimah[2], Julia Kline[1], Kelly McNally[4], J Logan[4], Weihong Yuan[2,5], Lili He[1,2,6], Nehal Parikh[1,2,6]
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0159 Common and unique multimodal covarying patterns in Autism Spectrum Disorder subtypes

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0162 Mapping latent neuroanatomical substrates underlying severe temper outbursts in children

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0165 Cortical gyrification in ASD and ADHD across the lifespan: A systematic review and meta-analysis

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0166* Functional cartography of cognitive dysfunction in focal epilepsies: a multiscale task-fMRI analysis

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0168 Robust Topological Alterations in the Frontal Lobe and Default Mode Network in ADHD

Zeus Gracia-Tabuenca[1], Juan Carlos Diaz-Patino[1], Isaac Arelio[1], Sarael Alcauter[1]
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0170 Longitudinal Changes of Magnetization Transfer Ratio in Postoperative Cerebellar Mutism Syndrome

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0172 Using Functional Networks to Classify Seizure Onset Zones in Children with Focal Epilepsy

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0183 Structural brain network development in middle childhood after prenatal methamphetamine exposure

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0184 Decreased Dynamic Integration Ability in Cortical Resting-State Networks in Autism Spectrum Disorder

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0187 Stratifying longitudinal attention-deficit hyperactivity disorder with their neural signatures

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0196 Decreased gyrification is related to autistic traits but not polygenic risk for autism

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0200 Altered functional connectivity of white matter networks in mesial temporal lobe epilepsy

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0206* Aberrant social orienting and extrinsic functional connectivity during natural viewing in autism

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0210 Functional connectivity differences between ADHD individuals with good and poor treatment response

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0226 Infant Regional Corpus Callosum and Forebrain Volumes After Surgery for Long-Gap Esophageal Atresia

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0233 Functional brain dynamics in autism assessed using co-activation pattern analysis

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0239 Gene expression-cortical morphometry association in autism subtypes with different language outcomes

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0245 Patterns of functional hypo- and hyperconnectivity in data driven symptom-defined autism subtypes

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0250 Non-sedated neuroimaging to detect brain changes after mild traumatic brain injury in young children

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0259* Gray Matter Co-Alteration Networks in Autism Spectrum Disorder: A Meta-Connectomic Approach

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0261 The General and Specific Neurocognitive Configurations of Attention-Deficit/ Hyperactivity Disorder

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0266 Uncertainty-informed detection of MRI-negative focal cortical dysplasia using Bayesian deep learning

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0268 Early life adversity and hippocampal maturation in children with autism spectrum disorders

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0278 Optimal control energy landscape tracks metabolic underpinnings in temporal lobe epilepsy

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0284 ADHD symptom level and neural processing of a naturalistic stimulus in typically developing children

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0287 Brain activity during emotional movies predicts subtypes of psychopathic personality traits

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0296 Lower sex prediction accuracy in females with autism supports the extreme brain male hypothesis

Han Peng[1], Dorothea Floris[2], Tony Charman[3], Julian Tillmann[4], Christine Ecker[5], Flavio Dell'Acqua[6], Tobias Banaschewski[7], Carolin Moessnang[8], Simon Baron-Cohen[9], Rosemary Holt[10], Sarah Durston[11], Eva Loth[12], Declan Murphy[4], Jan Buitelaar[13], Andrea Vedaldi[14], Steve Smith[1], Christian Beckmann[2]
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0302 Longitudinal White Matter Development and Changes in Autism Severity Across Early Childhood

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0314 The relationship between externalizing and internalizing behaviour and the cortico-amygdalar network

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0331 Atypical neural underpinnings of face processing in ASD revealed by cross-modal analyses

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0335 Stability of EEG markers over two years in a clinical dataset of ADHD patients and healthy controls

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0347 Head Circumference and other Morphological Parameters in Male Adults with Autism Spectrum Disorder

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0355 A connectome-wide mega-analysis of functional dysconnectivity in autism spectrum disorder

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0364 Task-induced ACC network adjustments mediate effect of childhood psychopathology on social function

Adam Kaminski[1], Xiaozhen You[2], Katie Flaharty[1], Alyssa Verbalis[2], Serene Habayeb[2], Charlotte Jeppsen[2], Madison Berl[2], Lauren Kenworthy[2], Chandan Vaidya[1]
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0374 Longitudinal Functional Connectivity of Cognitive Brain Networks in Older Adults with Autism

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0382 Altered functional brain connectivity to verbal sounds in preterm born infants

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0386 Brain Neural Flexibility as a Potential Biomarker for ADHD Evaluation

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0391 Reduced structural connectivity in newborns with congenital heart disease.

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0395 T1/T2 ratios: investigating myelination in perinatal stroke patients

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0400 Functional connections underlying the bilingual executive function advantage in children with autism

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0402 Abnormal Sulcal Pattern in Children with 16p11.2 Deletion and Duplication Syndrome

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0410 Motor Performance and White Matter Microstructure in Young Children with Prenatal Alcohol Exposure

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0413 Altered Cortical Folding Depth in Fetuses with Down Syndrome

Hyuk Jin Yun[1], Juan Perez[1], Neel Madan[2], Rie Kitano[3], Shizuko Akiyama[2], Diana Bianchi[4], P. Ellen Grant[1], Tomo Tarui[2], Kiho Im[1]
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0418 Aberrant functional connectivity in affective networks underlies persistent post-traumatic headache

Scott Holmes[1], Jordan Lemme[2], Diana Sibai[2], Laura Simons[3], Rami Burstein[4], Alyssa Lebel[2], Michael O'Brien[2], Jaymin Upadhyay[2], David Borsook[2]
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0420 Language network connectivity relates to language outcomes in children with Benign Epilepsy with CTS

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0421 Estimating the impact of drug prevention on functional brain outcomes using Bayesian mixed effects

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0425 Evaluation of MRI scoring systems prediction with two-year outcome in Neonatal Encephalopathy

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0431 Mapping Neural Correlates of Biological Motion in School-Age Children with Autism using HD-DOT

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0438 Altered Functional Connectivity in Limbic & Striatal Network Regions in Adolescents with Concussion

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0446 The structural and functional interplay in autism animal models: Grik4over mice as an example

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0450 Motor cortical beta-band inter-trial variability and age-related change in autism spectrum disorder

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0451 The structural basis for functional connectivity: an evidence from agenesis of corpus collosum

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0454 Age-related parietal GABA alterations in children with Autism Spectrum Disorder

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0457 Reduced asymmetry of hand knob volume and impaired U-fiber hand tracts in aging adults with ASD

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0464 Longitudinal symptoms changes are correlated to altered local gyrification index (LGI) in autism
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0475 Relationship between fMRI BOLD signal and MEG theta power in autism spectrum disorders
Molly Wilkinson[1], Yuqi You[1], Yangfeifei Gao[1], Kalekirstos Alemu[1], Michael Olson[1], Annika Linke[1], R. Joanne Jao Keehn[1], Ksenija Marinkovic[1], Ralph-Axel Müller[1]
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0477 A canonical correlation analysis and diffusion MRI study on children with mild TBIs
Guido Guberman Diaz[1], Sonja Stojanovski[2], Jean-Christophe Houde[3], Alain Ptito[1], Anne Wheeler[4], Maxime Descoteaux[5]
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0478 A brief intervention targeting impulsivity and sensation seeking: effects on reward anticipation.
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0479 Associations between MRI, Hammersmith Infant Neurological Exam and General Movements in Very Preterm
Karen Harpster[1], Stephanie Merhar[2], Venkata Sita Priyanka Illapani[2], Beth Kline-Fath[2], Nehal Parikh[2]
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0486 Altered Probabilistic Connectivity of Striatal-Executive Networks in Children with Hydrocephalus
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0492 Autism Symptoms and Sensory Abnormalities: Their Relationship and Underlying Functional Connectivity
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0495 Sex-specific Volumetric Differences Associated with Substance Use through Adolescence
Xavier Navarri[1], Irina Filippi[1], Mohammad Hassan Afzali[2], patricia Conrod[1]
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0501 Dimensional and categorical approaches to map neurobiology underlying cognitive imbalances in autism
Suk Jun Hong[1], Laurent Mottron[2], Bo-yong Park[3], Yifei Weng[4], Oualid Benkarim[3], Brian Hyung[3], Sara Larivière[3], Reinder Vos de Wael[3], Sofie Valk[5], Adriana Di Martino[1], Michael Milham[1], Boris Bernhardt[3]
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0503 Regional cerebellar volumes in children with autism and associations with core autism traits
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Psychiatric (eg. Depression, Anxiety, Schizophrenia)

0073 Hippocampus connectivity mediates the association between acceptance and PTSD symptom severity
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0075 Pre-operative local brain volumes predict outcome of subcallosal cingulate DBS for depression
Jurgen Germann[1], Gavin Elias[1], Alexandre Boutet[2], Michelle Beyn[3], Aditya Pancholi[3], Clemens Neudorfer[3], Aaron Loh[3], Peter Giacobbe[4], Andres Lozano[3]
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0076 Dissociating trait and state anxiety effects on mismatch negativity and sensory gating ERPs
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0077 Functional connectivity gradients of the striatum in schizotypy and first-episode psychosis
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0080 Simultaneous associations of brain volume with depression symptoms and urban environment features
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0082 The early postpartum period – differences between women with and without a history of depression
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0083 Linked Independent Component Analysis for Treatment Response in Schizophrenia
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0085 Investigating changes to glutamate and GABA in gender dysphoria

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0087 Activity flow models reveal the role of schizophrenia network abnormalities in cognitive activation

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0088 Longitudinal Connectome-Wide Analysis of the Real-time fMRI Neurofeedback Training Effects in MDD

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0089 RS-fMRI in the Assessment of the Functional State of the Brain in Patients with Opioid Addiction

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0098 Associations of cigarette smoking with gray and white matter in the UK Biobank

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0103 Multivariate Autoregressive Models reveal altered directional network interactions in schizophrenia

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0108 Electrophysiological connectivity following ketamine infusion in healthy and depressed volunteers

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0112 Myelin Imaging of the Cholinergic System in First-Episode Psychosis

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0117 Surface area covariance in the mentalizing network: Insight into social cognition in schizophrenia

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0118 Changes in Resting-State MEG Spectral Power and Connectivity from Combat Related PTSD

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0119 The frequency-specific resting connectome in bipolar disorder: A MEG study

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0120 Inverse correlation between omega-3 concentration and emotional brain response on major depression

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0123 Cytokines levels reflect the disrupted functional connectivity in patients with bipolar disorder

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0125* Convergent molecular, cellular, and neuroimaging signatures of major depression

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0126 Neural processing and interpretation of physical social interaction in disruptive behavior disorders

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0127 Personality Traits are related with Dynamic Functional Connectivity in Major Depression Disorder

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0132 Functional neural correlates of social ostracism in anxious youth at high risk for bipolar disorder

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0135 Linking schizophrenia symptom dimensions to neural processes by multivariate pattern prediction

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0139 Cortical myelination patterns of bipolar disorder related affective temperaments

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0144 Temporal dynamic variations during rumination: a reproducible fMRI study

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0146 Hierarchical Bayesian learning under persecutory delusional ideation in a variable social environmen

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0147 FMRI connectivity distinguishes psychosis cases and controls with replicable, interpretable features

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0148 Opposing effects of early adversity and PTSD on amygdala function: Timing and lateralization matter

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0150 Multi-scale feature reduction and semi-supervised learning for parsing neuroanatomical heterogeneity

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0152 Neural dysfunctions in antisocial spectrum: a meta-analysis of fMRI studies on 5 research domains

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0153 Neural Processing of Monetary Reward in Youth with Depression, Obesity, and Loss of Control Eating

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0157 The link between psychopathy, corticostriatal connectivity and crime in methamphetamine use disorder

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0160* The relevance of transdiagnostic shared networks to symptoms and cognition in schizophrenia

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0164 Using task and intrinsic functional connectivity to detect changes after ketamine

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0167 Failure of network segregation during memory consolidation and retrieval in schizophrenia

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0173 Sulcal alterations and functional implications associated with hallucinations in schizophrenia

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0175 Altered Neurobehavioral Responses to Social Reciprocity in Women with Bulimia Nervosa

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0176 Regional Heterogeneity of Gray and White Matter Changes in Schizophrenia

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0177 Machine Learning Prediction of Childhood Maltreatment Using Multimodal Neuroimaging Data

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0185 Association between polygenic risk for schizophrenia with functional and structural brain

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0188 Fractional anisotropy and processing speed are associated in depressed patients and healthy controls

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0189 No evidence for biological subtypes of depression: Another non-replication of Drysdale et al. (2017)

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0190 Midline thalamus-based connectivity and hyperarousal in insomnia during wakefulness and sleep

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0191 Classifying Major Depression Using Ensemble GAN (EnGAN) Based on Functional Network Connectivity

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0193 BCPL: Convolutional Prototype Learning for Brain Networks for Depression Diagnosis

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0194 A LHPP genetic variant conferring risk to MDD and SCH was associated with GMV of parahippocampus

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0197 Functional brain imaging markers as predictors for response to Escitalopram and Sertraline

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0199 Morphological Alterations in Obsessive-compulsive Disorder

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0203 Prefrontal hyperactivity related to expected reward value in adolescent major depressive disorder

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0204 Depression phenotypes and structural brain changes following childhood trauma: A replication study

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0208 Higher-order psychopathology associations with total brain volume

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0212 Multi-site bipolar disorder classification using subcortical shape morphometry

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0214 Age-related changes in grey-matter free water distinguish depression and mild cognitive impairment

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0216 Positive Symptoms Associated with Gray Matter Patterns in the Cerebellum and OFC in Schizophrenia

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0221 C-Reactive Protein and Brain Structure in Major Depressive Disorder

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0222 Reward Processing Does Not Predict Anhedonia in Depressed Adolescents

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0223 Brain Dynamics of Mind Wandering and Behavioral Variability in ADHD

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0224 Prefrontal Hyperconnectivity Linked to Persistent Symptoms in Mild Traumatic Brain Injury

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0228 Brain activation patterns during working memory tasks in schizophrenia and major depressive disorder

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0229 A novel cognition-guided neurofeedback treatment for methamphetamine addiction

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0230 Disrupted intrinsic visual-auditory connectivity networks associated with depressed symptoms in MDD

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0236 Depression and self vigilance: Victim sensitivity and its neural correlates among patients with MDD

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0237 Atypical Antipsychotics Prevent Illness-Related Volume Loss within the Basal Ganglia in Psychosis

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0238 Voxel-wise meta-analysis of grey matter changes in Major Depressive Disorder

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0241 Structural connectivity of white matter tracts in patients with obsessive-compulsive disorder

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0243 Genetic specific deficit of abnormal gyrification in unaffected relatives of schizophrenia patients

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0244 Interactions between smoking and internet gaming disorder on spontaneous brain activity

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0247 Resting-state functional connectivity using network-based thalamic seeds in first episode psychosis

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0251* Brain Age and Epigenetic Age Acceleration During Conversion to Psychosis.

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0254 Disrupted Intersubject Variability Architecture in Functional Connectomes in Schizophrenia

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0256 Cerebellar volume reduction predicts treatment response in women with anorexia nervosa

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0257 Relating structural to functional brain connectivity in individuals with alcohol use disorder

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0258 Identification of the epileptogenic zone using interictal MEG networks and graph theory

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0260 Adaptive neurofeedback stimulation to support smoking cessation

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0262 Effect of threat on working memory related dlPFC activity in healthy subjects and anxiety patients.

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0264 Brain functional correlates of recurrent major depressive disorder – a longitudinal fMRI study

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0265 Meta-analysis of coincident grey matter volume increases and decreases in psychiatric diseases
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0272 Clinical-anatomical phenotypes of schizophrenia
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0277 Tools for Neuroimaging-Behavioral Relationships In Dimensional Geometric Embedding (N-BRIDGE)
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0280* Hallucinations and Delusions Relate to Distinct Hierarchical Alterations in Neural Timescales
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0282 Characterizing cortical myeloarchitecture in schizophrenia spectrum disorder
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0283 Neuroanatomical signature of a novel transcriptome-based polygenic risk score for depression
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0289 Thinner Parahippocampal Area 3 in First-Episode Psychosis in Discovery and Replication Samples
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0290 Effects of cross-sex hormone treatment on own body perception in relation to self
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0292 Brain Microstructure Alterations and Human Cytomegalovirus Infection in Major Depressive Disorder
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0293 Impaired TPJ Deactivation during Category Fluency in First-Episode Psychosis
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0294 Effects of Oxytocin on Neural Reward Processing in Women with and without Autism
Tanya Procyshyn[1], Michael Lombardo[2], Meng-Chuan Lai[3], Bonnie Auyeung[4], S Crockford[1], Nazia Jassim[5], J Deakin[6], S Soubramanian[7], A Sule[1], Simon Baron-Cohen[1], Richard Bethlehem[1]
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0299 Effects of Simultaneous rtfMRI and EEG Neurofeedback in Major Depression: Insights from eLORETA
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0300 Structural MRI spatial pattern associated with schizophrenia patients in a multivariate approach
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0301 Empathy subtypes in MDD based on amygdala connectivity at 7 Tesla and socio-emotional behaviour
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0304 Increased structural covariance of the insula in drug-dependent subjects
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0307 RTMS Treatment Alters the Dynamics Between Functional Networks in Treatment-resistant Depression
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0308 FMRI Neurofeedback Amygdala Training Influences Immune Responses
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0311 Brain alterations associated with suicidal ideation and attempt across 18 international studies
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0313 The relationship of free water and cognition within the cognitive control network in early psychosis

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0316 Thicker prefrontal cortex is associated with negative symptoms in schizotypy – an ENIGMA study

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0317 Consistent Temporal Dynamic Response to Drug Cues across Multiple Clinical Populations

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0319 Learning without contingencies induces higher order asynchrony in brain networks in schizophrenia

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0321 Association of reduced cortical thickness with treatment resistance in schizophrenia

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0322 Effects of Levodopa on Cue Reactivity in Abstinent Alcoholics

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0324 Abnormal maintenance of long-range temporal dependence during sleep in insomnia

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0325 White matter integrity in people with treatment-resistant schizophrenia

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0326 Abnormal effective connectivity in the right frontoparietal network in major depressive disorder.

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0327 Resting-State Network Properties Reflect Adolescent Psychiatric Symptoms and Immune Activity

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0328 White Matter Integrity Across Major Depressive Disorder, Bipolar Disorder and Schizophrenia

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0337 Hippocampal subfields volume and cognitive function in schizophrenia and mood disorders

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0338 Neuroimaging effect of aerobic exercise on white matter abnormality in patients with schizophrenia

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0341 Brain connectivity patterns during rest associated with suicidal risk

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0344 Cmorph LGI is more spatially precise than standard FreeSurfer method – evidence from schizophrenia

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0349 Characterising Neural Heterogeneity in Psychiatric Disorders using Normative Models

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0350 Male Internet gaming disorder subjects are more impulsive than females in inter-temporal decisions

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0351 Altered Brain Functional Connectome as a Trait Marker of Anorexia Nervosa

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0353 Reward-related decision making in anorexia nervosa – a longitudinal fMRI study

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0356 Hallucination proneness modulates functional involvement of the dorsal cingulate cortex circuit

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0357 Association of CDH13 genotype with structural connectivity estimates in human corticospinal tract

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0358 Morphometric profiles of eating disorder symptomatology in the ABCD study

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0359 Schizophrenia disorganization and core-deficit association with diminished postmovement beta rebound

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0360 Predicting Conversion to Schizophrenia from Prodromal States using a Machine Learning Approach

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0362 In vivo mGluR5 binding and functional connectivity in abstinent subjects with alcohol dependence

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0363 Sex-specific effects of C4 schizophrenia risk alleles on longitudinal changes in cortical structure.

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0365 Opposite functional connectivity changes in manic and depressive episodes in bipolar disorder

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0366 Identifying Major Depressive Disorder from Resting State fMRI Using Convolutional Neural Networks

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0370 Alcohol Cue Related Effects on the Response Inhibition Network in Patients with Alcohol Use Disorder

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0371 Thalamic neuro-metabolite correlates of cognitive impairments in Schizophrenia
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0373 Effects of chronic cocaine use on frontostriatal functional connectivity: a longitudinal study
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0377 Positive valence systems deficits in adolescent depression
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0383 Quantitative Susceptibility Mapping of Brain Tissue-Iron Distribution in the Psychosis Spectrum
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0385 Examining Depression in MS Using Multi-Shell Diffusion Imaging & Structural Connectometry
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0388 EEG Microstates in Patients with Psychotic Disorders: Effect of Antipsychotic medication
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0390 FMRI-Based Prediction of Clinical Improvement in Psychosis with Machine and Deep Learning
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0393 A double-blind rtfMRI neurofeedback study on auditory verbal hallucinations
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0394 Transient States Changes of Functional Network Connectivity in Major Depressive Disorder
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0396 Reward circuitry activations during feedback of performance differentiate anxiety variants in youth
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0397 Association between Grey Matter Volume and Altered Brain Signal Complexity in Schizophrenia
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0398 Enhancement of memory in schizophrenia with PDE4 inhibitor Roflumilast
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0399 Hippocampal progression in First Episode Psychosis
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0405 Graph theoretic analyses of brain networks in schizophrenia during memory formation & consolidation
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0406 Effects of lifetime alcohol consumption on surface morphometry in alcohol-dependent patients
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0408 Classifying Heterogeneous Presentations of PTSD via Intrinsic Connectivity Network Machine Learning
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0411* Psychopathology phenotypes explain individuals' unique deviations from normative neurodevelopment
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0412 Insula hypoactivation is associated with dissociative experiences
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0414 Association between Structural and Functional Alterations in Anorexia Nervosa
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0416 Neuroimaging defined psychosis spectrum phenotypes in the general population
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0423 Dynamic Coactivation Patterns and Depressive Symptoms in a Normative Adult Sample
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0424 Mapping Individually Actionable Brain-Behavior Space Variation Across the Mood Spectrum
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0426 Sparse Deep Neural Networks on Imaging Genetics for Schizophrenia Discrimination
Jiayu Chen[1], Xiang Li[1], Vince D. Calhoun[2], Jessica Turner[1], Theo Van Erp[3], Lei Wang[4], Ole Andreassen[5], Ingrid Agartz[6], Lars Westlye[7], Jingyu Liu[1], Shihao Ji[1]
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0428* Uncoupling of Energy Consumption and Functional Connectivity in Psychotic Disorders
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0429 Network-Based Cortical Atrophy in Posttraumatic Stress Disorder: Results from the ENIGMA PGC PTSD
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0430 Directional relationships between brain nodes in schizophrenia recovered by dynamic graphical models
Tristan Attisha[1], Shahira Baajour[1], Asadur Chowdury[1], Jeffrey Stanley[1], Vaibhav Diwadkar[1]
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0432 Neurophysiological abnormalities in post-traumatic stress disorder during working-memory processing
Veronika Pak[1], Lori Wozney[2], Zoë O'Brien-Moran[3], Beverly Lieuwen[4], Róisín (Rose) Walls[2], Steven Beyea[1], Sandra Meier[5], Patrick McGrath[1], Maher Quraan[6]
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0433 Selective Left Hemisphere Auditory Cortex Pathophysiology in First Episode Psychosis
Dean Salisbury[1], Xi Ren[1], Erin Duricy[2], Lydia Chlpka[2], Mark Curtis[2], Rebekah Farris[2], Vanessa Fishel[2], Dylan Seebold[2], Natasha Torrence[2], Yiming Wang[2], Brian Coffman[2]
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0434 Cortical Thickness in Adolescent Females with Anorexia Nervosa – Interactions with BMI and Puberty
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0435 Hippocampal volume changes associated with childhood trauma in acute suicidal behavior
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0437 White matter abnormalities in children with the Child Behavior Checklist-Dysregulation Profile
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0441 Cortisol Effects on Brain Functional Connectivity during Emotion Processing in Women with Depression
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0442 Effects of serial ketamine on connectivity of resting-state networks in major depressive disorder
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0443 Control over robotically-mediated hallucinations through dFC-based rt-fMRI neurofeedback
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0449 Variability in Striatal DOPA Decarboxylase Activity and Symptoms in Primary Psychosis
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0453 OCD symptom dimensions predict the degree of dACC modulation during motor control and working memory

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0455 Preferential response to slow stimuli in MDD, and its basis in intrinsic neural activity (at rest)

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0456 Morphological brain correlates of substance user: A systematic review and meta-analysis

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0460 Alterations in Social Cognitive Networks in Individuals at Risk for Psychosis

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0466 Mapping Neurodevelopmental Trajectories of Thalamo-cortical Systems Across the Mental Health Spectra

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0467 Adolescent behavior and brain volume related to adult polygenic risk score for alcohol use disorder

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0470 White matter microstructural deficits in 364 adults with a history of suicide attempts

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0471 Disrupted functional connectome hierarchy in depression: a multi-site fMRI study with 2234 subjects

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0473 Effects of saracatinib on reward circuitry in subjects with and without a family history of alcohol

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0480 Relationship between amygdala subregional networks and positive symptom severity in schizophrenia

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0481 FC deficits as neural biological correlate of trait and state characteristics in MDD

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0483 Neural oscillations abnormalities in first-episode schizophrenia

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0484 Patients with psychosis present abnormal transitions between their dynamic functional networks

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0485 Sex-Specific Hippocampal Volume and Verbal Memory Relationships in Psychosis

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0488 Exploring the Relationship Between Early Psychosis Verbal Memory Deficits and White Matter Integrity
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0489 Characterisation of structural underpinnings of functional connectivity differences in schizophrenia
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0490 Functional MRI to distinguish apraxia-related processes in stroke: Healthy pilot study
Fred Tam[1], Elahe Marandi[1], Luke Chung[2], Vessela Stamenova[3], Tom Schweizer[4], Eric Roy[5], Simon Graham[1], Sandra Black[1]
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0494 Altered Brain Connectivity in Patients with Schizophrenia
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0499 Functional connectivity associated with primary and secondary reward in bipolar disorder
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0502 Obesity and Cerebral Blood Flow in the Reward Circuitry of Adolescents with Bipolar Disorder
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EMOTION, MOTIVATION AND SOCIAL NEUROSCIENCE

Emotional Learning

0527 Replicable neural and behavioral patterns of delayed fear extinction in a multicenter fMRI setting
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0542 Adding positive punishment facilitates learning in fMRI neurofeedback
Manfred Kloebl[1], Paul Michenthaler[1], Godber Godbersen[1], Andreas Hahn[1], Rupert Lanzenberger[1]
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0554 Neural Correlates of Aversive Learning as Mechanisms Linking Childhood Trauma with Psychopathology
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0586 Neural Correlates of the Relationship between Micro-expressions Recognition and Deception Detection
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Emotional Perception

0507 Aberrant cortical connectivity demonstrated by HEFs in patients with mood disorders
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0515 Neural processing of alarm and non-alarm signaling in human scream calls
Sascha Frühholz[1], Joris Deitziker[1], Matthias Staib[1], Wiebke Trost[1]
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0516 Artificial intelligence is perceived as evolutionary threat: neural evidence from amygdala response
Zhengde Wei[1], Ying Chen[1], Xiaochu Zhang[1]
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0530 Temporal Decoding of Vocal and Musical Emotions: Same Code, Different Timecourse?
Sebastien Paquette[1], Simon Rigoulot[2], Karina Grunewald Zola[3], Alexandre Lehmann[4]
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0534 Neurobiological Affective Processes' Contribution to General Intelligence
Leonardo Christov-Moore[1], Anthony Vaccarro[1], Antonio Damasio[1], Jonas Kaplan[1]
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0536 The role of the pontine region in visual affective processing
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0537 Cognitive consequences related to depressive traits: an ERPs study
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0538 Reduced probability but preserved empathic ability in adolescents with CD and high CU traits
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0552 Neurophysiological and behavioral correlates of emotional auditory processing in healthy adult women
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0553 Mind acts upon mind: Brain-to-brain synchrony in lover-lover dyads revealed by EEG hyperscanning
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0563 Psychological and Neural Correlates of Real-time Affective Instability
Oksana Berhe[1], Carolin Mößnang[1], Markus Reichert[1,2], Urs Braun[3,1], Ren Ma[1], Gabriela Gan[1], Ulrich Ebner-Priemer[2], Andreas Meyer-Lindenberg[4], Heike Tost[1]
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0571 Neural spiking in the human medial temporal limbic system to normal and whispered emotional voices
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0575 Mood symptom severity affects prefrontal emotion processing in psychogenic nonepileptic seizures
Jane Allendorfer[1], Adam Goodman[1], Caroline Byington[1], Amber Martin[1], Krista Tocco[2], Valerie Vogel[2], W. Curt LaFrance Jr.[2], Jerzy Szaflarski[1]
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0579 Neural Correlates of Emotional Perception by Multi-Voxel Pattern Analysis
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0584 Functional neuroanatomy of dimensional emotions in facial processing: An ALE meta-analysis
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0588 Alteration in cortical processing of facial emotions in broader autism phenotype
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Reward and Punishment

0545 The effect of specific types of childhood maltreatment on subcortical structures
Janik Goltermann[1], Lena Waltemate[1], Dominik Grotegerd[1], Hannah Lehmke[2], Stella Fingas[1], Susanne Meinert[3], Verena Enneking[4], Simon Schmitt[5], Tina Meller[5], Frederike Stein[5], Katharina Brosch[5], Andreas Jansen[5], Axel Krug[5], Igor Nenadic[5], Tilo Kircher[5], Bernhard Baune[1], Udo Dannlowski[1], Nils Opel[1]
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0547* Lower Reward Network Glutamate is Associated with Diminished Reward Responsiveness
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0582 Up-regulation of an electrical fingerprint of the ventral striatum via musical neurofeedback
Neomi Singer[1], Arielle Rabinowitz[1], Gilad Poker[2], Marcel Farres-Franch[3], Maayan Doron[4], Netta Dunsky[5], Shlomi Nemni[6], Talma Hendler[7], Alain Dagher[8], Robert Zatorre[9]
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0585 How do abstinent stimulant users process monetary risk in non-choice situations?
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Self Processes

0541 Core Aspects of Self-Concept Biases in Social Anxiety: Neurobehavioral Indications
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0548 Freudian ideas represented in the brain: A fMRI-study of ego-functions, the BIG-5, and the DMN.
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Sexual Behavior

0506 Functional and morphological changes related to sexual orientation in female-to-male transsexuals
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0546 Neural Correlates of Sexual Orientation in Men: Brain Activity During Reading Mind in the Eyes task
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0567 Premature Ejaculation Recognition Using Convolutional Neural Network Based on FC and SICE Features
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Social Cognition

0504 Why are you laughing? Neural correlates of social intent attribution to auditory and visual laughter
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0505 An fMRI study on the neural bases of interference in false belief reasoning.
Foyzul Rahman[1], Dwayne May[1], Daniel Shaw[1], Klaus Kessler[1], Charlotte Hartwright[1]
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0509 Relationship between depression and dorsolateral prefronto-thalamic tract injury following mild TBI
Hyeok Gyu Kwon[1], Sung Ho Jang[2], Mi Young Lee[3]
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0510 Neural responses of in-group "favoritism" and out-group "discrimination" toward moral behaviors
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0524 Altered Hippocampal Function and Self-Reflection Network in Psychogenic Nonepileptic Seizures (PNES)
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0532 An fMRI Study on Mentalization and Intergenerational Ambivalence
Chanyoung Ko[1,2], Hyojung Eom[1], Sunghyon Kyeong[1], Min-Kyeong Kim[1], Sunyoung Park[3], Jae-Jin Kim[1,4]
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0533 ERP evidence for modulations of spontaneous gender categorization of faces by perceived race
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0535 An Interplay Between Pubertal and Adult Testosterone and Brain Response to Faces in Young Men
Zhijie Liao[1], Steven Tilley[2], Ammar Khairullah[1], Tomas Paus[3]
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0550 Theory of mind and grey matter volume in late childhood
Yu Tong Guo[1], Élizabel Leblanc[1], Miriam Beauchamp[1,2], Annie Bernier[1]
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0557 Haste Makes Waste: Oxytocin Effect On Intertemporal Choice
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0559 Does theory of mind has a structural substrate?
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0562 Motherhood Influences on Neural Mechanisms for Perceiving Eye Gaze and Emotional Facial Expressions
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0566 Examining social attribution skills in very preterm born children using MEG and fMRI
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0576 Neural Correlates of Charitable Cognition Moderated by Likelihood of Making a Difference
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0581 The neurocognitive systems underlying shared attention to emotional videos
Junaid Merchant[1], Sarah Dziura[1], Diana Alkire[1], Deena Shariq[1], Adnan Rashid[1], Elizabeth Redcay[1]
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0583 The role of functional connectivity in the link of peer victimization and adolescent psychopathology
Hanie Edalati[1], Mohammad Hassan Afzali[2], Rachel Sharkey[3], Josiane Bourgue[1], Alain Dagher[4], patricia Conrod[5]
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0589* Doctor Trustworthiness Reduces Pain and Its Neural Correlates in Virtual Medical Interactions
Elizabeth Losin[1], Steven Anderson[1], Tor Wager[2], Morgan Gianola[1], Natalia Medina[1], Jennifer Perry[1]
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0592 Expectations of Identity-Specific Social Outcomes in Orbitofrontal Cortex
James Thompson[1], Eslam Hassan[1], Lindsay Shaffer[1]
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Social Interaction

0508 Reduced Accumbal Volume in Individuals with Anxious Tendencies, Regardless of Their Bully History
Hideo Suzuki[1], Jacob Benton[1]
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0522* Social perspective taking shapes brain hemodynamic activity and eye-movements during movie viewing
Mareike Bacha-Trams[1], Elisa Ryyppö[1], Enrico Glerean[1], Mikko Sams[1], Iiro Jääskeläinen[1]
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0525 Dissecting the midlife crisis: Social, personality & demographic indicators in social brain anatomy
Hannah Kiesow[1], Lucina Uddin[2], Sami Hamdan[1], Boris Bernhardt[3], Joseph Kable[4], Danilo Bzdok[3]
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0539 Neural basis of sharing information through goal-directed conversation: hyperscanning fMRI study
Takahiko Koike[1], Motofumi Sumiya[1], Masako Hirotani[2], Norihiro Sadato[1]
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0543 Neural networks supporting digital and natural voice recognition
Claudia Roswandowitz[1], Thayabaran Kathiresan[2], Elisa Pellegrino[2], Volker Dellwo[2], Sascha Frühholz[1,3]
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0549 Parent-adolescent fMRI hyperscanning and dyadic neurofeedback for influencing brain response
Kara Kerr[1], Erin Ratliff[1], Stormie Fuller[1,2], Danielle DeVille[3,4], Kelly Cosgrove[3,4], Masaya Misaki[4], Amanda Morris[1,4], Jerzy Bodurka[4,5]
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0565 Violations in the eye of beholders: noradrenergic system, social norms processing and pupillometry
Élise Désilets[1], Benoit Brisson[1], Sylvain Sirois[1], Philip Jackson[2], Sébastien Hétu[3]
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0569 Evidence of Parent-adolescent Cross-brain Connectivity during an fMRI Hyperscanning Task
Erin Ratliff[1], Masaya Misaki[2], Kara Kerr[1], Kelly Cosgrove[3], Andrew Moore[2], Margaret Johnson[2], Danielle DeVille[3], Kyle Simmons[4], Jerzy Bodurka[2], Amanda Morris[1]
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0572 Increased Synchronous Brain Activity of Dyads in fMRI Hyperscanning Joint Attention Studies
Hiroki Tanabe[1], Ayumi Yoshioka[1], Takahiko Koike[2], Eri Nakagawa[2], Motofumi Sumiya[2], Norihiro Sadato[2]
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0580 Increasingly Closer Relationships Indicate Increasing Similarities In Brain Activity Viewing A Movie
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0587 A computational model of one-shot economic game and its neural substrates
Hiroki Tanaka[1], Atsushi Miyazaki[1], Haruto Takagishi[1], Tetsuya Matsuda[1]
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0591 Reduced Volume of the Nucleus Accumbens in Bully Perpetration and Victimization Experiences
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0594 Childhood Trauma Is Associated with Bully Perpetration Depending on Amygdala Volume
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Social Neuroscience Other

0514 Linking emotion perception to neurocomputational processes underlying adaptive social functioning
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0528 Child and Adult Stress: Effects on the Brain and Cognitive Ability in the UK Biobank Sample
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0531 An fMRI study on the magnitude of romantic love and psychological characteristics in couples
Junhyung Kim[1,2], Hyojung Eom[2], Sunghyon Kyeong[2], Jooyoung Oh[1], Min-Kyeong Kim[2], Jae-Jin Kim[1,2]
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0556 Towards a neurometric-based construct validity of trust
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0570 Insula, thalamus and anterior cingulate volumetric changes after mindfulness training in novices
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0590 Lack of relationship between empathy and aspects of brain structure and function in children.
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Emotion and Motivation Other

0512 Brain Decoding of Affective Meaning through Personal Stories
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0517 An ERP study of appreciation in different uses
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0518 Creative comprehension and appreciation: an ERP study
Jun-Yu Yang[1], Yu-Chen Chan[1]
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0519 An ERP study of humor in the resolution processes
Jui-Hsuan Hsieh[1], Yu-Chen Chan[1]
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0520 An EEG Study of Magic Attention and awareness
Min-Tsung Yueh[1], Yu-Chen Chan[1]
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0521 An ERP study of humor and monetary rewards
Chuan-Han Kao[1], Lin-Yi Wang[1], Yu-Chen Chan[1]
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0523 An fMRI study of reasoning jokes on humor processing
Yu-Ting Li[1], Yu-Chen Chan[1]
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0529* The relationship between BMI and volume of subcortical structures is age-dependent
Filip Morys[1], Alain Dagher[1]
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0540 Selectively altering love related-belief in the human brain improves romantic relationships
Hongwen Song[1], Lin Zuo[2], Difei Liu[1], Wen Guo[1], Weili Liu[1], Xiaochu Zhang[3]
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0544 Can we reliably measure emotion regulation using fMRI?
Carmen Morawetz[1], Stella Berboth[2], Nils Kohn[3], Christian Windischberger[4]
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0551 Distinctions between needs and desires in the brain: a meta-analysis
Juvenal Bosulu[1], Max-Antoine Allaire[1], Sébastien Hétu[1]
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0555 A rs-fMRI Study on People with High and Low Life Satisfaction based on Psychological Needs Support
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0560 Microstructural variability in the external capsule is associated with emotional reactivity to daily
Sunghyun Shin[1], Jong An Choi[2], Mina Jyung[3], M. Justin Kim[4], Incheol Choi[3], Sunhae Sul[1]
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0561 Religious chanting may affect brainstem activity and modulate emotion
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0564 Sense of humor moderates the mesolimbic reward pathways: An fMRI study of humorous rewards
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0568 Being moved by moving images: Brain responses to artistic landscape clips
Ayse Ilkay Isik[1], Edward A. Vessel[2]
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0573 Prediction of the intensity of humour-related amusement over time: A behavioural and EEG study
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0574 Shared vs. distinct neural bases for hunger and emotion: A functional neuroimaging meta-analysis
Jennifer MacCormack[1], Adrienne Bonar[1], Kristen Lindquist[1]
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0577 Does resting state cortico-limbic functional connectivity relate to emotion regulation ability?
Anne Gärtner[1], Christoph Scheffel[1], Denise Dörfel[1]
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0578 A human brain circuit for spirituality and religiosity
Michael Ferguson[1], Frederic Schaper[2], Alexander Cohen[3], Shan Siddiqi[4], Sarah Merrill[5], Jordan Grafman[6], Cosimo Urgesi[7], Franco Fabbro[7], Michael Fox[8]
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0593 Offending behavior linked to activity in regions subserving emotional processes: An ALE meta-analysis
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GENETICS

Genetic Association Studies

0599 Association of ULK4 and the Hyperdopaminergic Response of the Human Reward System
Jens Treutlein[1], Karolin Einenkel[1], Simone Loehlein[1], Esther Diekhof[2], Bernd Kraemer[1], Anja Richter[1], Oliver Gruber[1]
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0602 Extending Genome-Wide Association Study Results for Subcortical Brain Volumes in a Neonatal Cohort
Harriet Cullen[1], Konstantina Dimitrakopoulou[2], Dafnis Batalle[3], Oliver Gale-Grant[3], Hamel Patel[4], Charles Curtis[4], Andreas Schuh[5], Lucilio Cordero-Grande[6], Emer Hughes[3], Anthony Price[6], Daniel Rueckert[5], Joseph Hajnal[3], Steve Smith[7], David Edwards[3]
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0603 An EEG and Genetic Study of Adaptation to Subpolar and Polar Regions
Alexander Savostyanov[1,2,3], Sergey Tamozhnikov[1], Ekaterina Proshina[1], Tatiana Astakhova[3], Alexander Saprigyn[1], Alexandra Karpova[4], Nataliya Borisova[4], Elena Afanaseva[4], Nataliya Milakhina[2,1]
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0604 FAAH genetic variation modulates neural correlates of extinction recall – An fMRI study
Jennifer Spohrs[1], Birgit Abler[2], Laura Bindila[3], Paul Plener[1], Michael Prost[4], Georg Grön[2], Martin Ulrich[2]
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0606 Making the MOSTest of imaging genetics
Dennis van der Meer[1], Oleksandr Frei[1], Tobias Kaufmann[1], Alexey Shadrin[1], Anna Devor[2], Olav Smeland[1], Wes Thompson[2], Chun Chieh Fan[2], Dominic Holland[2], Lars Westlye[1], Ole Andreassen[1], Anders Dale[2]
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0610 Altered White Matter and Ventricle Structure Associated with C4A Gene Expression in Schizophrenia
Grace Jacobs[1], Tina Roostaei[2], Clement Zai[3], Natalie Freeman[3], Stephanie Ameis[4], James Kennedy[3], Aristotle Voineskos[5]
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0611 Identification of Independent Genomic Sources Driving Structural and Functional Brain Variation
Sourena Soheili-Nezhad[1], Christian Beckmann[1], Emma Sprooten[1]
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0616* Improving discovery of the genetic architecture of the cerebral cortex
Carolina Makowski[1], Dennis van der Meer[2], Oleksandr Frei[2], Tobias Kaufmann[2], Lars Westlye[2], Ole Andreassen[2], Donald Hagler[1], Chun Chieh Fan[1], Terry Jernigan[1], Anders Dale[1], Chi-Hua Chen[1]
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0617 Presymptomatic and Symptomatic MAPT Mutation Carriers Feature Functional Connectivity Alterations
Liwen Zhang[1], Taru Flagan[1], Stephanie Chu[1], Suvi Häkkinen[1], Julio Rojas-Martinez[1], Eliana Marisa Ramos[2], Anna Karydas[1], Giovanni Coppola[2], Daniel Geschwind[2], Rosa Rademakers[3], Bradford Dickerson[4], Kimiko Domoto-Reilly[5], Leah Forsberg[6], Ralitza Gavrilova[6], Nupur Ghoshal[7], Jill Goldman[8], Neill Graff-Radford[9], Murray Grossman[10], G.Y. Robin Hsiung[11], Edward Huey[8], Kejal Kantarci[6], David Knopman[6], Diane Lucente[4], Joanne Taylor[1], Zbigniew Wszolek[9], Maria Luisa Mandelli[1], Maria Luisa Gorno-Tempini[1], William Seeley[1], Bruce Miller[1], Hilary Heuer[1], Bradley Boeve[6], Adam Boxer[1], Howard Rosen[1], Suzee Lee[1], On behalf of the ARTFL/LEFFTDS Consortia[1]
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0622 Acceleration of Heritability and Genetic Association Studies with Algorithms and GPU Parallelization

Kathryn Hatch[1], Habib Ganjgahi[2], Brian Donohue[3], Meghann Ryan[1], L. Elliot Hong[4], Bhim Adhikari[5], Neda Jahanshad[6], Paul Thompson[7], David Glahn[8], John Blangero[9], Thomas Nichols[2], Sarah Medland[10], Peter Kochunov[1]
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0626 Genome-Wide Brain-Wide Analysis of Betweenness Centrality: A Structural Connectome Study

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0629 Genome-wide association study of language network's functional connectivity

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0630* Molecular genetics of the biological age of the brain in the UK Biobank

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0632 Age-related changes in sleep duration and brain structure with genetic association

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0633 Polygenic Mediation Analysis of Amyloid Imaging Phenotypes in Alzheimer's disease

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0634 Polygenic score for Schizophrenia is associated with white matter connectivity in healthy population

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Genetic Modeling and Analysis Methods

0596 The Impact of Population Structure on Neuroimaging Studies

Zhaowen Liu[1,2,3], Yen-Chen Feng[1,2,3], Jingwei Li[4], Ru Kong[4], Joshua Roffman[2], Avram Holmes[5], B.T. Thomas Yeo[4], Randy Buckner[6], Jordan Smoller[1,2,3], Tian Ge[1,2,3]
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0598 Genetic Associations in Diagnostic Specific Trajectories Revealed with Autoregressive Mixed Models

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0609 Heritability of Subcortical Structures Using a Twin and Non-Twin Sibling Design

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0614 Signatures of functionally interacting genetic assemblies in the human brain.

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0618 Genetic and Environmental Influence on Resting State Networks in Young Healthy Adults

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0623 Handling Genetically Related Subjects through Linear Mixed-Effects Modeling in Neuroimaging

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0628 The influence of genetic variation on resting-state connectivity in infancy

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Neurogenetic Syndromes

0601 Enabling big-data analyses of Huntington's disease with federated BIDS-compatible public datasets
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0607 Age-dependent connectivity differences within the default mode network in Down Syndrome
Katherine Koenig[1], Se-Hong Oh[2], Melissa Stasko[3], Emma Lissemore[3], Elizabeth Roth[3], Anne Birnbaum[3], Thomas Scheidemantel[4], Hudson Taylor[4], Nancy Roizen[4], Stephen Ruedrich[4], James Leverenz[1], Alberto Costa[3]
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0620 High-risk psychiatric mutations affect functional connectivity along shared parsimonious dimensions
Clara Moreau[1], Guillaume Huguet[2], Sebastian Urchs[3], Hanad Sharmarke[4], Claudia Modenato[5], Kuldeep Kumar[6], Elise Douard[7], Ana Dos Santos Silva[8], David Linden[9], Sarah Lippé[10], Carrie Bearden[11], Anne Maillard[12], Paul Thompson[13], Pierre Bellec[14], Sébastien Jacquemont[15]
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0621 Expression of Genes Causing Spinocerebellar Ataxia is Related to Dopamine Synthesis Measured by PET
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0625 Impact of 7q11.23 Copy Number Variation on Developmental Gray Matter Trajectories
Shane Kippenhan[1], Tiffany Nash[1], Michael Gregory[1], Philip Kohn[1], Carolyn Mervis[2], Daniel Eisenberg[1], Madeline Hamborg[1], Leah Sorcher[1], Karen Berman[1]
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Transcriptomics

0600 Pairwise Interactions in Gene Expression Determine a Hierarchical Transcription Profile of the Human
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0605* Transcriptomic Analysis of Alzheimer's Disease Associated Brain Hypometabolism
Sejal Patel[1], Derek Howard[1], Alana Man[2,3], Deborah Schwartz[4,5], Joelle Jee[2,6], Daniel Felsky[1], Zdenka Pausova[7], Tomas Paus[5,8,9,10], Leon French[1,2,9,10]
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0608* Validating cellular dimensions of cortical organization through neuroimaging-transcriptomics
Jakob Seidlitz[1], Ajay Nadig[2], Siyuan Liu[2], Richard Bethlehem[3], Petra Vertes[4], Sarah Morgan[5], Frantisek Vasa[6], Rafael Romero-Garcia[3], Casey Paquola[7], Boris Bernhardt[8], Konrad Wagstyl[9], Damon Polioudakis[10], Luis de la Torre-Ubieta[10], Daniel Geschwind[11], Edward Bullmore[3], Armin Raznahan[12]
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0612 Transcriptomic parcellation of the human brain reflects structure and function
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0613 Neuroimaging-genetic associations in Parkinson's disease
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0615 Comparison of brain connectomes by MRI and genomics and its implication in Alzheimer's Disease
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0624* Principal axes of gene-regulated spatial organization of the human brain
Jacob Vogel[1], Konrad Wagstyl[2], Casey Paquola[1], Jakob Seidlitz[3], Alex Diaz-Papkovich[1], Thomas Funck[1], Bratislav Misic[1], Boris Bernhardt[1], Alan Evans[1]
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0627* Brain disorders taxonomy from a transcriptomics point of view
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Genetics Other

0595 Genetic influences on Hippocampal Subfields: An Emerging Area of Neuroscience Research
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0619 Genetic influences on brain function for conditioned threat in humans
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0631 Cerebral blood flow differences in limbic regions: an effect of FTO genotype
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HIGHER COGNITIVE FUNCTIONS

Decision Making

0642 Online decoding for rtfMRI neurofeedback via group classification models of a decision-making task
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0650 Posterior parietal cortex plays a role in tactile perception and decision making
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0668 Modulations of Insular Cortex Activity during Risky Decision Making: a fMRI Study
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0669 Causal role of Parietal Cortex in valuing uncertainty information during ambiguity decision-making
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0673 Noradrenaline in Optimal Decision-Making: Testing SAPEs in Electrophysiology and BOLD Imaging
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0675 Toward a Predictive Model of Delay Discounting
Jeremy Myslowski[1,2], Jeff Soldate[1], Mikhail Koffarnus[3], Jonathan Lisinski[2], Warren Bickel[2], Sarah Snider[2], Stephen LaConte[1,2]
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0679 Anxiety representation in anterior insula is not task related but baseline related
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0693 An fMRI investigation of the neural correlates of reasoning in moral judgment
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0696 Perirhinal and ventromedial prefrontal cortex involvement in configural objects value estimation
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0698 Neural Correlates of Accuracy and Confidence during Realistic Decision-Making in Noisy Environments
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0705 Deciding to Sample: Modeling instrumental information demand and belief updating in humans
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0706 Fronto-Striatal Structural Alterations Associated with Risk-Seeking Behavior in Adolescents
Akul Sharma[1], Marie L. Gillespie[1], Katherine Tseung[1], Theo Van Erp[2,3], Uma Rao[1,3,4]
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0711 Individual-specific functional architecture and activation patterns in medial prefrontal cortex
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0713 Neurobiological Substrates Associated with Risk-Seeking Behavior in Adolescents.
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0721 Neural computations underlying human reinforcement learning in a continuous choice space
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Executive Function, Cognitive Control and Decision Making

0635 Network centrality dissociates brain regions in right ventral IFC activated for response inhibition
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0636 Virtual training leads to real acute physical, cognitive and neural benefits on healthy adults.
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0640 Neural correlates of numbtouch in healthy subjects
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0644 The DMCC Project: A neuroimaging study of individual variation in cognitive control function
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0648* Brain structure and function predict different domains of cognitive control in normal aging
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0649 Longer screen time and functional connectivity in children with dyslexia
Tzipi Horowitz-Kraus[1], Mark DiFrancesco[2], Paige Greenwood[2], Elisha Scott[2], John Hutton[2], Jon Doudley[2], Rola Farah[3]
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0651 Neural Signatures of Dual-Task Response Conflicts and Their Modulation by Age
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0652 Age Differences in Predicting Executive Functioning from Structural and Functional Neuroimaging Data
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0653 Representational similarity analysis of color-word Stroop reveals neural coding of cognitive control
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0656 Conflict monitoring modulates effective connectivity of the cingulo-cerebellar circuitry in humans
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0657 Neural coding of visual objects rapidly reconfigures to reflect subtrial shifts in attentional focus
Lydia Barnes[1], Erin Goddard[2], Alexandra Woolgar[1,3]
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0658 Brain Activity during Switching and Cardiorespiratory Fitness in Adults with Cardiovascular Risks
Yu-Wei Chiu[1], Ssu-Yuan Chen[2,3], Pei-Fang Tang[1,3,4,5,6], Joshua Goh[4,5,6,7], Ya-Fang Chen[8,9], Wen-Yih Tseng[4,5,10,11], Jen-Hau Chen[12,13], Yu-Ling Chang[5,6,7,14]
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0660 Food-related cognitive flexibility and future body fat gain: neural correlates and modulation of BMI
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0662 The no-smoking signs with high craving smoking symbols induced low craving: An fMRI and EEG study
Wanwan Lv[1], Qichao Wu[1], Xiaochu Zhang[2]
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0664 Shared mechanisms of attention and emotion control in depression
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0665 The neural correlates of emotional influence on cognitive control in alexithymia
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0667 Effective anygdala-prefrontal connectivity during emotion regulation: a meta-analysis of PPIs
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0670 Can fatigue resulting from cognitive work be distinguished from fatigue due to task disengagement?
Glenn Wylie[1], Bing Yao[2], John DeLuca[2]
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0671 Brain signal variability and cognitive flexibility across the lifespan
Salome Kornfeld[1,2], Jason Nomi[1], Zach Goodman[1], Celia Romero[1], Bryce Dirks[1], Lucina Uddin[1]
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0672 Cognitive control networks coordinate domain general task information throughout the brain
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0678 Neural Mechanisms of Motivated Cognitive Control in Older Adults
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0680 Variability of Functional Connectivity Underlies Individual Differences in Delay Gratification
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0682 Multiple-demands & cognitive control: Task-switching is not specific to anterior prefrontal cortex.
Richard Daws[1], Yuqi Li[1], Eyal Soreq[1], John Duncan[2], Stefano Sandrone[1], Adam Hampshire[1]
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0684 Predicting successful response inhibition using machine learning based on beta bursts
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0686 Suppress me if you can: Neurofeedback of the Readiness Potential
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0690 Reward network connectivity differentially disrupted in treatment resistant schizophrenia
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0694 Neural activation depicts distinct roles of IFG, ACC and PHG in scientific cognitive conflict task
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0695 Brain activity and functional connectivity during the scientific conflict tasks: a fMRI study
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0700 Movement Errors during Skilled Motor Performance Engage Distinct Prediction Error Mechanisms
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0702 Towards an Optimal Realtime fMRI Neurofeedback Signal Source: A comparison of ROI and SVM approaches
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0704 Role of Arousal in Choice Conflict Adjustments
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0708 Brain structure mediates the relationship between prenatal nicotine exposure and BMI in children.
Shana Adise[1], Nicholas Allgaier[1], Max Owens[1], Sage Hahn[1], Bader Chaarani[1], Jennifer Laurent[1], Stephen Higgins[1], Alexandra Potter[1], Hugh Garavan[2]
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0709 Shared and Distinct Neuronal Mechanisms underlying Cognitive and Affective Flexibility.
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0710 Theta activity priming in superior frontal sulcus increases proactive cognitive control
Maria Paz Martinez-Molina[1], Gabriela Valdebenito-Oyarzo[1], Josefina Larrain-Valenzuela[1], Ximena Stecher[2], Cesar Salinas[3], Francisco Zamorano[4], Pablo Billeke[5]
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0712 Towards Real-Time Detection of Attentional Shielding in a Set-Switching Task
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0714 Differentiated Effects of Normal Aging on Cortical Substrates of Executive Functioning
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0719 Medial prefrontal cortex activity tracks effort expenditure in sustained goal pursuit
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0720 The effects of left hemisphere stroke lesions on cognitive control.
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0722 Cortico-Striato-Thalamo-Cortical Network for Cognitive Flexibility in Obsessive-Compulsive Disorder
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0723 Neural activity underlying temporal switching between predictive and reactive saccades
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Imagery

0639 Neural and behavioural outcomes differ following motor imagery vs. physical practice-based training
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0645 Probing the effect of block duration on corticospinal excitability during motor imagery performance
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0659* Neural Tracking of Rhythmic Constructs in Imagined Speech
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0663* Real-time reconstruction of letter shapes in the Mind's Eye
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0676 Signatures of excitatory and inhibitory activity on the hemodynamic response in the awake mouse
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0681 Perceived and mentally rotated contents are differentially represented in cortical layers of V1
Polina Iamshchinina[1], Daniel Kaiser[2], Renat Yakupov[3], Daniel Haenelt[4], Alessandro Sciarra[5], Hendrik Mattern[5], Emrah Duezel[3], Oliver Speck[3], Nik Weiskopf[4], Radoslaw Martin Cichy[6]
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0699* Content-Specific Neural Patterns in Auditory Cortices During Imagery of Music
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Music

0637 Musical Rhythm and Pleasure in Parkinson's Disease
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0646 Investigating a cortical musical gradient using multivariate pattern & connectivity analyses
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0677 The plasticity of white matter connectivity on bilateral PAC by musical improvisation training
Sijia Guo[1], Binxin Huang[1], Jinnan Gong[1], Jing Lu[1], Dezhong Yao[1]
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0691 Effects of musicianship and absolute pitch on structural brain networks
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0715 An auditory-reward network processes musical uncertainty and surprise to pleasurable effect
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0717 Sensorimotor adaptation during vocal pitch regulation in trained singers
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0718 The Open Multimodal Music and Auditory Brain Archive (OMMABA)
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Reasoning and Problem Solving

0641 Problem Description Modulates Brain Representation of Arithmetic Word Problem Solving
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0654 Understanding Human Reasoning from the Text of bAbI Dataset
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0687 A machine learning method revealing brain systems in belief-logic conflict
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Space, Time and Number Coding

0655 Does selective coupling precede selective activity? A study of numeral processing in kindergartners
Benjamin Conrad[1], Gavin Price[1]
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0674* **Individual Differences in Shared Representation of Symbolic and Nonsymbolic Number at 7T fMRI**
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0724 **Whole vs. Rational: A preliminary study of neural distance effects in decimal number comparison**
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Higher Cognitive Functions Other

0638 **Slip-sliding away: common reductions in task positive neural systems emerge with the passage of time**
Adam Turnbull[1], Theodoros Karapanagiotidis[1], Hao-Ting Wang[2], Boris Bernhardt[3], Robert Leech[4], Daniel Margulies[5], Elizabeth Jefferies[6], Jonathan Smallwood[1]
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0643 **Integration of structural and functional connectomes to predict individual cognitive abilities**
Elvisha Dhamala[1], Keith Jamison[1], Sarah Dennis[2], Raihaan Patel[3], M Mallar Chakravarty[3], Amy Kuceyeski[1]
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0647 **Emergence of neural dynamics within a co-ordinate space of large-scale neural hierarchies**
Theodoros Karapanagiotidis[1], Diego Vidaurre[2], Andrew Quinn[2], Deniz Vatansever[3], Giulia Poerio[4], Adam Turnbull[1], Robert Leech[5], Boris Bernhardt[6], Elizabeth Jefferies[1], Daniel Margulies[7], Thomas Nichols[2], Mark Woolrich[2], Jonathan Smallwood[1]
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0661 **Human Intracranial Recordings reveal specific Connectivity signatures stemming from the Hippocampus**
Joao Castelhano[1], Isabel Catarina Duarte[2], Ines Bernardino[3], Federica Pelle[4], Stefano Francione[5], Francisco Sales[6], Miguel Castelo-Branco[7,8]
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0666 **Sex-specific cognitive profiles relate to resting state functional connectivity in males and females**
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0683 **Self-reflectiveness relates to functional connectivity dynamics and structural connectome topology**
Daouia Larabi[1], Remco Renken[2], Joana Cabral[3], Jan-Bernard Marsman[2], André Aleman[2], Branislava Ćurčić-Blake[2]
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0689 **Morphological changes after chemotherapy treatment for breast cancer**
Gwen Schroyen[1], Jeroen Blommaert[2], Ahmed Radwan[1], Smeets Ann[3], Koen Van Laere[4], Sabine Deprez[1], Stefan Sunaert[1]
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0692 **Voxel sensitivity to kinematic and object-related features during action observation**
Francesca Simonelli[1], Giacomo Handjaras[1], Francesca Benuzzi[2], Giulio Bernardi[1], Andrea Leo[1], Davide Duzzi[2], Luca Cecchetti[1], Paolo Nichelli[2], Carlo Porro[2], Pietro Pietrini[1], Fausta Lui[2], Emiliano Ricciardi[1]
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0701* **Individual Variability in Brain Activity during Cognitive Tasks and Relationship with Cognition**
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0703 **Establishing a causal role for medial prefrontal cortex in reality monitoring**
Karuna Subramaniam[1], Hardik Kothare[1], Leighton Hinkley[1], Phiroz Tarapore[1], Srikantan Nagarajan[1]
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0707 **Brain functional plasticity in response to creativity training with music composing**
Anna Arkhipova[1], Pavel Hok[1], Jan Valošek[1], Markéta Trnečková[1], Gabriela Všetičková[2], Vít Zouhar[2], Petr Hluštík[1]
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LANGUAGE

Language Acquisition

0750 **Ventrolateral frontal to parietal connectivity patterns relate to second language learning**
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0751 **Brain activation during auditory statistical learning predicts adults' vocabulary**
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Language Comprehension and Semantics

0725 The neural dynamics of semantic categorization in semantic variant of Primary Progressive Aphasia.
Valentina Borghesani[1], Corby Dale[2], Sladjana Lukic[3], Leighton Hinkley[2], Michael Lauricella[3], Wendy Shwe[3], Danielle Mizuiri[2], Susanna Honma[2], Zachary Miller[3], Bruce Miller[3], John Houde[4], Maria Luisa Gorno-Tempini[3], Srikantan Nagarajan[2]
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0729 Identifying the core language system in brain with individual fingerprint
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0735 Age-related differences in processing violations in highly predictable speech: An fMRI study
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0737 Neural Encoding of Natural Story Comprehension Reveals Cortical Representation of Semantic Relations
Yizhen Zhang[1], Kuan Han[1], Robert Worth[2], Zhongming Liu[1]
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0738 The neural bases underpinning flexible semantic retrieval of thematic and taxonomic relations
Meichao Zhang[1], Dominika Varga[1], Xiuyi Wang[2,3], Katya Krieger-Redwood[1], Andre Gouws[1], Jonathan Smallwood[4], Elizabeth Jefferies[5]
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0741 Controlled Thematic Integration in the Human Brain
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0744* A Gradient from Long-term Memory to Novel Cognition
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0746 Difference in the Structural Language Connectome Between German and Arabic Native Speakers
Xuehu Wei[1], Helyne Adamson[1], Matthias Schwendemann[1], Tomás Goucha[1], Angela Friederici[1], Alfred Anwander[1]
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0753 Neural correlates of Metaphors comprehension in Mexican children and adolescents
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0758 The cognitive and neural correlate of verbal irony
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0759 Self-image in a mirror enhances EEG oscillation in theta and alpha bands in linguistic judgments
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0761 Thematic and Taxonomic Relations in the Brain
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0762 Neural activity for honorification: Social cognition in language
Shingo Tokimoto[1], Yayoi Miyaoka[2]
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0763 The Effect of Task on Concrete and Abstract Semantic Processing
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0764 Reorganization of language networks after temporal lobe epilepsy surgery – a clinical fMRI study
Olivia Foesleitner[1], Benjamin Sigl[2], Silvia Bonelli[3], Karl-Heinz Nenning[3], Christoph Baumgartner[3], Susanne Pirker[3], Ekaterina Pataraia[3], Doris Moser[3], Victor Schmidbauer[3], Johannes Hainfellner[3], Thomas Czech[3], Christian Dorfer[3], Georg Langs[4], Daniela Prayer[3], Gregor Kasprian[3]
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0766 An fMRI study of late bimodal bilinguals during story comprehension
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0778* Neural correlates of individual differences in story understanding
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Reading and Writing

0727 Brain networks underlying orthographic, phonological and semantic processing of Chinese characters
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0734 Scripts of Mother Tongues Affect Cortical Structure in Bilinguals' Reading Network
Hsin-Yu Lin[1], Chiao-Yi Wu[1], Beth O'Brien[2], Yuvadarshini Ilang Kumaran[1], Marilyn Cai Ling Yeo[3], Brenda Rapp[4], Michael McCloskey[4], Kenichi Oishi[5], John Desmond[6], SH Annabel Chen[1,3,7]
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0736 Connectome-level connectivity in children with reading disabilities
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0747 White Matter Diffusion Correlates of Reading Deficits in Subacute Stroke.
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0749 Cortical Thickness, Surface Area and Volume in the Reading Network of Children with Dyslexia
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0752 Multimodal Principal Component Analysis to Link White Matter Features to Reading Skill
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0754 The Impact of Script Sets on the Functional Organization of Bilinguals' Reading Network
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0757 The Brain Activation during Chinese Characters Recognition
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0767 Auditory cortex myelination in dyslexia: marker of behavioral deficits
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0768 What Distinguishes Resting State and Reading Networks? A Graph Theory Analysis of fMRI Data
Francesco Usai[1], Aaron Newman[1]
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0772 A longitudinal study of neural networks for reading in patients with medulloblastoma
Matthew Scoggins[1], Ping Zou[1], Stu McAfee[2], Nicholas Phillips[1], Yimei Li[2], Zoltan Patay[1], Amar Gajjar[1], Heather Conklin[1]
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0773 Multivariate Classification of Four Writing Systems Within the Brain's Reading Network
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0780 Field functional Near Infrared Spectroscopy fNIRS Neuroimaging for Global Child Development
Kaja Jasinska[1], Ben Zinszer[1], Fabrice Tanoh[2], Joelle Hannon-Cropp[1], Hermann Akpe[3], Axel Seri Blahoua[4], Elise Aya Kouadio[2]
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Speech Perception

0730 Hemispheric asymmetry of auditory evoked magnetic fields related to words in synthetic speech
Minoru Hayashi[1]
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0731 Modulation of amygdala activity and amygdalo-cortical connectivity by dynamic affective vocalization
Florence Steiner[1,2], Natalia Fernandez[1], Philipp Stämpfli[3,4], Joris Dietziker[1,2], Erich Seifritz[3,4], Anton Rey[5], Sascha Frühholz[1,2,6]
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0733 Resting State and DTI Imaging of Speech in Noise
David Wack[1], Kathleen McNerney[2], Konstantinos Slavakis[1], Sarah Muldoon[1], Ferdinand Schweser[1], Audrey Wack[3], Cheryl McGranor[1], Erin Kelly[4], Robert Miletich[1]
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0740 Transcranial Magnetic Stimulation Enhances Speech Perception in Noise in Young and Aging Adults
Valerie Brisson[1], Maxime Perron[2], Pascale Tremblay[2]
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0742 Neurocognitive dynamics of near-threshold voice signal detection and affective voice evaluation
Huw Swanborough[1,2], Matthias Staib[1,2], Sascha Frühholz[1,3,4]
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0743 Speech Perception in Noise in Amateur Singers: an MRI Study
Maxime Perron[1], Valerie Brisson[1], Josée Vaillancourt[1], Pascale Tremblay[1]
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0745 When Less is More – Unpicking the structural basis of speech in noise comprehension
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0769 Separating brain responses to speech from noise in naturalistic listening environments
Maansi Desai[1], Ian Griffith[1], Jade Holder[1], Cassandra Villarreal[1], Natalie Clark[1], Liberty Hamilton[1]
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0774 Anatomical differences in Heschl's gyrus in dyslexia
Josue Luiz Dalboni da Rocha[1], Damien Marie[1,2], Sanne Rutten[1], Narly Golestani[1]
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Speech Production

0726 Cortical dynamics of speech motor control in the non-fluent variant of Primary Progressive Aphasia
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0728 Language Production in English-French Bilinguals: Structural Findings Beyond the Cortex
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0748 Mapping cortical activations during overt language generation using HD-DOT
Mariel Schroeder[1], Rachel Ulbrich[1], Arefeh Sherafati[1], Andrew Fishell[1], Alexandra Svoboda[1], Joseph Culver[1], Adam Eggebrecht[1]
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0775 Predicting language impairments from microstructure of perilesional tissue in chronic stroke
Bradley Caron[1], Mitchell Mehringer[1], Franco Pestilli[1], Brielle Stark[1]
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0777 Solving the enigma: dual role of the cerebellum in predictive speech planning
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Language Other

0732 Optimizing grammar tasks for pre-operative fMRI based on task-based and resting-state activations
Monika Połczyńska[1], Lilian Beck[1], Martin Monti[1], Taylor Kuhn[1], Huan Wang[1], Timothy Ly[1], Kevin Japardi[1], David Shattuck[1], Ariana Anderson[1], Susan Curtiss[1], Nina Dronkers[2], Christopher Benjamin[3], Susan Bookheimer[1]
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0739 Evaluation of three fMRI language protocols in presurgical patients from a public hospital in Chile
Steren Chabert[1,2], Alejandro Veloz[1,2], Denisse Aguilera[1], Matias Avila[1], Valentina Contreras[1], Roberta Henriquez[1], Angele Jara[1], Camila Medina[1], Catalina Orostizaga[1], Gisella Tapia[3], Francisco Torres[3,4], Rodrigo Riveros[3,4], Begona Gongora[5,3], Matias Gonzalez[3,4], Carlos Bennett[3,4]
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0755 A new computational approach for language lateralization in children with intractable epilepsy
Hyun Freeman[1], Jeffery Killen[1], Roy Martin[1], Ismail Mohamed[1]
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0756 Effects of Bilingualism on Resting-State Functional Connectivity
Tanya Dash[1], Pierre Berroir[1], Yves Joanette[2], Ana Ansaldo[1]
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0765 Degeneration of contralesional corpus callosum in acute post-stroke aphasia
Melody Courson[1], Christophe Bedetti[1], Bérengère Houzé[1], Amélie Brisebois[1], Alex Desautels[1], Karine Marcotte[1], Simona Brambati[1]
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0770 Bilingual language experience and the neural underpinnings of working memory
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0771 The role of the dorsal branch of the arcuate fasciculus in phonological working memory in bilinguals
Elise Barbeau[1], Shanna Kousaie[2], Kanontienentha Brass[2], Maxime Descoteaux[3], Natalie Phillips[4], Debra Titone[2], Shari Baum[2], Michael Petrides[5], Denise Klein[2]
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0776 Predicting early post-stroke aphasia outcomes from initial language severity
Alberto Osa García[1], Simona Brambati[1], Amélie Brisebois[1], Marianne Désilets-Barnabé[1], Christophe Bedetti[1], Bérengère Houzé[1], Elizabeth Rochon[2], Carol Leonard[3], Alex Desautels[1], Karine Marcotte[1]
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0779 Extracallosal hyperconnectivity in well-performing preterm children versus language-impaired peers
Maria Barnes-Davis[1], Brady Williamson[2], Stephanie Merhar[1], Darren Kadis[3], Nehal Parikh[1]
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Long-Term Memory (Episodic and Semantic)

0782 A novel approach to investigate memory encoding with inter-subject correlation analysis
Stef Meliss[1], Cristina Pascua Martin[2], Kou Murayama[2]
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0786* Telling the truth from false memories by restudy: The role of parietal cortex
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0787 The effect of cognitive load on the retrieval of long term memory: an fMRI study
Minoo Sisakhti[1], Perminder Sachdev[2], Seyed Amir Hossein Batouli[3]
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0793* Decoding Identity from Brain Activity elicited during the Recollection of Personal Experiences
Andrew Anderson[1], Kelsey Mc Dermott[2], Brian Rooks[2], Kathi Heffner[2], David Dodell-Feder[2], Feng Lin[2]
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0794 The subsequent memory effects before and during memory encoding period of scalp EEG
Dahye Kim[1], Woorim Jeong[2,3], June Sic Kim[4], Chun Kee Chung[2,1,3]
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0798 Towards a perfect whole-brain classifier of future memory recognition
Jeff Soldate[1], Harshawardhan Deshpande[1], Jonathan Lisinski[2], Stephen LaConte[1,2]
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0806 Hippocampal subfield volumes predicts behavioral pattern separation during childhood
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0807 Structural brain network supporting episodic memory in the absences of one medial temporal lobe
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0808 Topographic profiling of memory-related pattern separation processes
Qiongling Li[1,2], Shahin Tavakol[2], Jessica Royer[2], Reinder Vos de Wael[2], Sara Lariviere[2], Bo-yong Park[2], Benoit Caldairou[3], Andrea Bernasconi[3], Neda Bernasconi[3], Dewi Schrader[4], Shuyu Li[1], Boris Bernhardt[2]
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0814 Working Memory and Episodic Memory Distinct Processes: Insight from Lesion Symptom Mapping.
Selma Lugtmeijer[1], Linda Geerligs[2], Frank Erik De Leeuw[3], Edward De Haan[4], Roy Kessels[2]
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0825 Aging and neural recruitment during episodic memory encoding
Signy Sheldon[1], Dorothee Schoemaker[2], Jens Pruessner[3]
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0831 Evidence for predictive coding mechanism in repetition suppression for faces in FFA
Daphne Stam[1], Yun-An Huang[1], Kristof Vansteelandt[1], Ronald Peeters[2], Charlotte Sleurs[3], Leia Vrancken[4], Rufin Vogels[5], Mathieu Vandenbulcke[1,6], Jan Van den Stock[7,6]
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0834 Category specificity in the medial temporal lobe during associative memory and integration
Anika Choi[1], Jessica Robin[1], Rosanna Olsen[2]
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0836 Age-related difference in neural mechanisms underlying the reverse own-age bias in source memories
Eri Tsuruha[1], Takashi Tsukiura[1]
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0837 An fMRI study of Autobiographical Memory Associated with Self-Defining Episodes During Adolescence
Ryuichiro Hashimoto[1], Ryuta Aoki[1], Takashi Itahashi[2]
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0844 Dynamic switching between brain networks – A Tri-Network perspective
Saurabh Shaw[1], Margaret McKinnon[1], Jennifer Heisz[1], Suzanna Becker[1]
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0845 Narrative speech production in angular gyrus: autobiographical, event-semantic, and object-semantics
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0855 Connectivity Gradients During Episodic Past and Future Thinking and Their Modulation by TMS
Seyma Bayrak[1], Ruud Berkers[1], Paula Renz[1], Gesa Hartwigsen[1], Daniel Margulies[2], Roland Benoit[1]
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Neural Plasticity and Recovery of Function

0784 Changes in Structural Connectivity Show a Novel Type of Primary Cortex Reorganization
Ahmad Amini[1,2,3], Florian Fischmeister[1,2,4,5], Eva Matt[1,2], Wolfgang Bogner[6], Robert Schmidhammer[5], Frank Rattay[3], Roland Beisteiner[1,2]
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0785 Brain plasticity mediates the effect of vigorous physical activity on mental health in adolescence
Piergiorgio Salvan[1], Thomas Wassenaar[2], Gwenaëlle Douaud[3], Thomas Nichols[1], Steve Smith[4], Catherine Wheatley[5], Nicholas Beale[6], Helen Dawes[6], Heidi Johansen-Berg[2]
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0789 A single, clinically relevant dose of baclofen significantly impairs motor sequence learning
Ioana Grigoras[1], Elias Geist[1], William Clarke[1], Uzay Emir[2], Ainslie Johnstone[3], Charlotte Stagg[1]
[1]University of Oxford, Oxford, Oxfordshire, [2]Purdue University, West Lafayette, IN, [3]University College London, London, London

0791 A new insight of brain reorganization in the sensorimotor cortex after spinal cord injury
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0796 Activity-dependent changes in white-matter in the adult human brain with neurofeedback fMRI
Cassandra Sampaio-Baptista[1], Heather Neyedli[2], Zeena-Britt Sanders[1], Kata Diosi[1], Michael Lührs[3], Rainer Goebel[3], Heidi Johansen-Berg[1]
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0799 Microstructural specificity of white matter imaging after stroke
Cristina Rubino[1], Brian Greeley[1], Bimal Lakhani[1], Alex MacKay[1], Lara Boyd[1]
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0802 Persistent hippocampal network abnormalities in long-term follow-up of NMDA receptor encephalitis
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0805 What Can MR Spectroscopy Measures of Occipital GABA tell about Visual Plasticity in Human Adult?
Sébastien Proulx[1], Yasha Sheynin[1], Robert Hess[1], Reza Farivar[1]
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0812 Motor network integrity of the anterior intraparietal sulcus aids grasping performance after stroke
Lukas Hensel[1], Fabian Lange[1], Caroline Tscherpel[1,2], Shivakumar Viswanathan[2], Jana Freytag[1], Lukas Volz[1], Simon Eickhoff[3,4], Gereon Fink[1,2], Christian Grefkes[1,2]
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0813 An MRI Pilot Study on Mindfulness and Cognitive Impairment After Breast Cancer Treatment
Michelle Melis[1], Katleen Van der Gucht[2], Soumaya Ahmadoun[1], Ellen de Cloe[3], Ann Smeets[4], Mathieu Vandenbulcke[5], Hans Wildiers[4], Patrick Neven[4], Keisuke Takano[6], Charlotte Sleurs[7], Jeroen Blommaert[8], Ahmed Radwan[1], Peter Kuppens[2], Filip Raes[2], Stefan Sunaert[1], Sabine Deprez[1]
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0815 GABAergic inhibition in sensorimotor cortex promotes retention of adaptation memory in older adults
Gershon Spitz[1], Pierre Petitet[1], Heidi Johansen-Berg[1], Jacinta O'Shea[1]
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0816 Real-time fMRI Neurofeedback in chronic stroke patients to increase lateralisation of brain activity
Zeena-Britt Sanders[1], Melanie Fleming[1], Thomas Smejka[1], Marilien Marzolla[1], Cassandra Sampaio-Baptista[1], Heidi Johansen-Berg[1]
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0823 White matter microstructural changes in short-term learning of a sequential pinch-force task
Stefanie Tremblay[1], Chiara Giacosa[1], Stephanie Beram[1], Sophia Grahl[2], Uta Schneider[2], Arno Villringer[2], Christine Tardif[3], Pierre Louis Bazin[4], Christopher Steele[1], Claudine Gauthier[1]
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0824 Population receptive field properties reflect remapping in V1 in peripheral retinal degeneration
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0826 Rest EEG Connectivity between Posterior Parietal and Primary Motor Cortices During Stroke Recovery
Lauren Edwards[1], Ashley Mangin[1], Scott Shaeffer[1], Jacqueline Palmer[1], Michael Borich[1], Cathrin Buetefisch[1]
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0827 Training Selective Attention in Older Adults via Real-Time fMRI Based Neurofeedback
Rebecca Polk[1], Tian Lin[1], Mohit Rana[2], Marite Ojeda[1], Peiwei Liu[1], Dawn Bowers[1], Ranganatha Sitaram[2], Natalie Ebner[1]
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0829 Interhemispheric Functional Reorganization after BCI-Guided Upper-Limb Training in Chronic Stroke
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0830 Sequential topological network changes after stroke restricted to primary motor cortex
Mitsouko Van Assche[1], Elisabeth Dirren[1], Andreas Kleinschmidt[1], Emmanuel Carrera[1]
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0832 BCI Training Effects on Chronic Stroke Correlate with Functional Reorganization in Motor Regions
Cheng Chen[1], Kai Yuan[1], Xin Wang[1], Raymond Tong[1]
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0847 Structural neuroplastic responses preserve functional connectivity in children born without a corpus
Vanessa Siffredi[1], Maria Giulia Preti[2], Valeria Kebets[3], Silvia Obertino[4], Richard Leventer[5], Alissandra McIlroy[5], Amanda Wood[6], Vicki Anderson[5], Megan Spencer-Smith[7], Dimitri Van De Ville[8]
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0849* Disuse-driven plasticity is specific to the somatomotor and cingulo-opercular networks
Dillan Newbold[1], Timothy Laumann[1], Catherine Hoyt[2], Jacqueline Hampton[2], David Montez[3], Mario Ortega[4], Evan Gordon[5], Abraham Snyder[6], Nico Dosenbach[7]
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0854 Quantitative MRI of Social Isolation in Male and Female Mice
Sarah McGillivray[1], Marius Tuznik[2], Gabriel Devenyi[3], M Mallar Chakravarty[3], David Rudko[2], Christine Tardif[2]
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Skill Learning

0790 Investigating phase synchrony of sensorimotor cortices while learning a novel bimanual motor task
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0792* Rethinking repetition suppression as a metric of learning
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0797 Exploring error detection/correction mechanisms in motor imagery
Jack Solomon[1], Shaun Boe[1]
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0817 Sensory stimulation-induced changes in EEG power during sleep relate to motor memory consolidation
Menno Veldman[1], Nina Dolfen[1], Mareike Gann[1], Julie Carrier[2], Brad King[3], Geneviève Albouy[1]
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0828 Connectivity between contralateral SMA and ipsilateral M1 predicts cross-education of a SRTT
Justin Andrushko[1], Jacob Levenstein[2], Catharina Zich[2], Jonathan Farthing[1], Charlotte Stagg[2]
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0840 Specific patterns of functional connectivity predict motor learning and intermanual transfer
Elisabeth Dirren[1], Mitsouko Van Assche[1], Emmanuel Carrera[1]
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0842 Exercise effects on motor memory consolidation and intermuscular coherence
Ali Khan[1], Hannah Strinholm[1], Matthew Rostad[1], Cameron Mang[1]
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0852 Dynamic Imaging of Phase-Amplitude Coupling during Rhythm Processing in Percussionists
Jiun-Wei Chen[1], Intan Low[1], Li-Kai Cheng[1], Hui-Ling Chan[2,3], Hsin-Yen Yu[4], Yong-Sheng Chen[2], Jen-Chuen Hsieh[1,5,6], Li-Fen Chen[1,5,6,7]
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Working Memory

0783 Pramipexole increases lateral prefrontal and parietal activity underlying sequential working memory
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0788 Probing the Network Basis of Memory Function and Dysfunction in Children with Epilepsy
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0795 Working memory load-related theta power modulation in frontal cortex: intracortical evidence
Alejandra Figueroa[1], Rodrigo Henríquez[2], Tomás Ossandon[2], Marcela Perrone-Bertolotti[3], Philippe Kahane[3], Jean-Philippe Lachaux[3], Francisco Zamorano[4], Pablo Billeke[5]
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0800 The Effect of Resistance Training on Visuospatial Working Memory: An ERP Study
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0801 Does everyone use common neural networks for visual short-term memory and attention control?
Mengya Zhang[1], Joe Rennie[1], Jonathan Jones[1], Duncan Astle[1]
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0803 Dorsal Caudate Connectivity Mediates the Effect of Severe Pediatric Obesity on Working Memory
Laya Rajan[1], Alaina Pearce[2,1], Joseph Cherry[1], Xiaozhen You[1,3], Alexandra Olson[4], Eleanor Mackey[4], Evan Nadler[4,3], Chandan Vaidya[1,3]
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0810 Which BOLD feature is most important to working memory performance?
Ekarin Pongpipat[1], Maria Boylan[1], Chris Foster[1], Christina Webb[1], Kristen Kennedy[1], Karen Rodrigue[1]
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0811 The transfer Effects of Adaptive Visual-spatial Span Training
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0819 Working memory alterations after a romantic relationship breakup
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0820 Neural Oscillations of Working Memory for Spatial and Temporal Order Information: An MEG Study
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0822 A Gradient of Dopamine Receptors Controls Access to Working Memory in a Large-Scale Model of Cortex
Sean Froudist-Walsh[1], Nicola Palomero-Gallagher[2], Daniel Bliss[1], Xingyu Ding[1], Lucija Jankovic-Rapan[2], Meiqi Niu[2], Kenneth Knoblauch[3], Henry Kennedy[3], Karl Zilles[2], Xiao-Jing Wang[1]
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0839 Predicting cognitive abilities using voxel-wise measures of neural efficiency and capacity
Jason Steffener[1], Dylan Franklin[1], Maryse Gad[1], Meghan Lau[1], Yara Yakoub[1]
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0851 Task-Merging for Finer Separation of Functional Brain Networks in Working Memory
Nicole Sanford[1], Todd Woodward[1]
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Learning and Memory Other

0804 Targeted Memory Reactivation features on Sleep Spindle activity recorded with High-density EEG
Andrea Sánchez Corzo[1], David Baum[2], Martín Irani[2], Jens Klinzing[3], Ranganatha Sitaram[4]
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0809 Dynamic changes in resting-state fMRI and episodic memory performance
Kazushi Shinagawa[1], Yuri Terasawa[1], Satoshi Umeda[1]
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0818 A Study of Semantic Memory Retrieval Patterns; An eye-tracking study
Jiseon Baik[1], Hae-Jeong Park[2,3], Haeil Park[4]
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0821 Dynamic Functional Connectivity During Context-Dependent Rule Learning
Thomas Morin[1], Weida Ma[1], Allen Chang[1], Chantal Stern[1]
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0833 Associative learning under uncertainty in autism
Laurie-Anne Sapey-Triomphe[1], Laura Timmermans[1], Johan Wagemans[1]
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0835* Stress modulates the link between striatal GABA and hippocampal activity during motor learning
Nina Dolfen[1], Lars Schwabe[2], Mareike Gann[1], Menno Veldman[1], Mark Mikkelsen[3,4], Nicolaas Puts[3,4], Richard Edden[3,4], Andreas Von Leupoldt[1], Stephan Patrick Swinnen[1], Brad King[1], Geneviève Albouy[1]
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0838 Electrophysiological correlates of BOLD self-regulation of Supplementary Motor Cortex
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0841 Behavioral and neurofunctional BDNF-effects in a longitudinal verbal learning task
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0843 Daytime nap enhances memory by boosting hippocampal and higher visual area activation at encoding
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0846 Sensorimotor network dynamics underlying visuomotor adaptation
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0848 Neural signatures of interacting sensorimotor and temporal expectations during rhythm learning
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0850 Associations between Hippocampal Subfield Volumes and Memory: Examination of Laterality Models
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0853 Exercise levels, verbal memory, and hippocampal gray matter volume in persons with epilepsy
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LIFESPAN DEVELOPMENT

Aging

0857 Associations Between Adiposity and Hippocampal Subfield Volume: the IGNITE study
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0858 Effects of Musical Instrument Training Program on Verbal Memory and Neural Efficiency in the Elderly
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0859 Effects of hormone exposure and APOE genotype on brain aging in 16,854 UK Biobank women.
Claudia Barth[1], Ann-Marie de Lange[2], Tobias Kaufmann[3], Ivan Maximov[2], Dennis van der Meer[3], Ingrid Agartz[1], Lars Westlye[2]
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0860 Impact of ageing on resting-state networks in 3 large cohorts of healthy elderly adults
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0861 The relation between regional white matter hyperintensity and parameters of alpha oscillations
Deniz Kumral[1,2], Elena Cesnaite[1], Frauke Beyer[1], Simon M. Hofmann[1], Christian Sander[3,4], Tilman Hensch[3,4], Ulrich Hegerl[5], Stefan Haufe[6], Arno Villringer[1,2,4], A. Veronica Witte[1], Vadim V. Nikulin[1,7]
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0862 The Association between Poor Sleep and Accelerated Brain Ageing in Older Adults
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0864 Anticholinergic drugs may accelerate degeneration of nucleus basalis of Meynert in healthy people
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0869 Effects of the PICMOR Intervention Program on Regional Brain Volume in Older Adults
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0870 Electrophysiological signatures of brain network dynamics in elderly
Christian Goelz[1], Karin Mora[2], Julia Stroehlein[1], Claus Reinsberger[1], Solveig Vieluf[1]
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0875 Adult age differences of value beliefs and prediction error processing in pupillary responses
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0878 Kinematic analysis of postural anticipation and recovery in young and older adults
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0881 Reduced Modulation of Task-Related Connectivity Mediates Age-Related Declines in Motor Performance
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0884 Amyloid-based Modulation of Functional Connectivity between Locus Coeruleus and Medial Temporal Lobe

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0886 Changes in Gray Matter Asymmetry in Broca's Area in Later Adulthood

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0887 Aging of Prefrontal White Matter Tracts: Insights from Diffusion Tensor Imaging

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0888 Age Effects on Subregions of the Fusiform Gyrus in Healthy Older Adults

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0889 Brains appear older with increasing blood pressure with or without hypertension.

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0891 Alteration of Emotion Regulation in Late-life Depression – a dynamic causal modelling study

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0893 Cognitive decline associated with frequency specific resting state functional change in normal aging

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0894 Determinants of Gray and White Matter Volume in a Chinese Population: the Shanghai Changfeng study

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0897 MR-based classifier of arteriolar sclerosis and small vessel atherosclerosis

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0899 Age-related Functional Connectivity Changes within the Default Mode Network

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0903 A high spatial resolution diffusion tensor template of the older adult brain

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0904 Age-related Overlapping Modular Organization of Resting-state fMRI

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0905 Does shiftwork affect brain and cognitive health? Multimodal evidence from a population-based sample

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0906 Age Related Change of Brain Activation during NF-fMRI Training Using a Small Humanoid Robot Agent

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0908 Neural plasticity with and without short-term exercise-intervention in healthy elderly people

Takahiro Soshi[1], Micael Andersson[2], Toshikazu Kawagoe[3], Shu Nishiguchi[4], Minoru Yamada[5], Yuki Otsuka[1], Ryusuke Nakai[1], Nobuhito Abe[1], Adibah Aslah[6], Tomohiko Igasaki[6], Lars Nyberg[2], Kaoru Sekiyama[1]
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0911 Two distinct histograms of magnetic transfer ratio of white matter in a large healthy cohort

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0913 Reaction time is associated with altered choline and GABA in aging: a drift-diffusion analysis

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0914 Age prediction by functional and structural connectivity: a multivariate pattern analysis
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0915 Neuro-functional age effects in the mesolimbic dopaminergic reward system
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0918 Effects of age and APOE genotype on hippocampal subfield volumes in 19,400 people in the UK Biobank
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0920 Characterization of cortical and subcortical changes in healthy aging
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0921 Age Related White Matter Changes in the Healthy Canine Brain
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0922 Using Eye Movements as a Measure of Medial Temporal Lobe Integrity
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0923 Reliability Analysis of Brain-age Algorithms
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0924 Estradiol Modulation of Network Connectivity Across the Adult Female Lifespan
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0925 Investigating accelerated brain aging in military Veterans exposed to trauma in childhood
M.Nicole Buckley[1,2], Amanda Watts[1,2], Ashley Clausen[1,2], Molly Monsour[1], Courtney Haswell[1,2], Emily Clarke-Rubright[1,2], Kelene Fercho[3,4], Lee Baugh[5], ENIGMA Brain Age Workgroup[6], ENIGMA-PGC PTSD Neuroimaging Workgroup[1], Rajendra Morey[1,2]
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0927 A spatio-temporally consistent longitudinal structural template of the older adult brain
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0930 Early age-related inhibitory control differences in major frontal fiber tracts
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0931 Genetic (APOE, BDNF) influences on functional brain connectivity in healthy older adults
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0932 The Neurophysiological Evidence of Age Difference in Framing effect on Value-based Decision Making
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0933 Reproducible dynamic functional connectivity differences between healthy young and old individuals
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0934 Brain Age Gaps: a Methodological Comparison & Correlations to Other Biological Clocks and Depression
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0935 Hippocampal modulators of delayed recall: Human Connectome Project in Aging at UCLA
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0937 Alzheimer's disease polygenic risk scores predict hippocampal subfield volumes in the UK Biobank
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0941 Modulation of cognitive and affective empathy with emotionally-valenced stimuli in late adulthood
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0944 Epigenetic signatures of inflammation associate with global reductions in brain volume
Eleanor Conole[1], Anna Stevenson[1], Sarah Harris[1], Susana Munoz-Maniega[1], María Valdés-Hernández[1], Mathew Harris[1], Veronique Miron[1], Heather Whalley[1], Mark Bastin[1], Joanna Wardlaw[1], Riccardo Marioni[1], Ian Deary[1], Simon Cox[1]
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0947 Rest-Activity Rhythms and White Matter Differences in Aging
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0950 Effects of 6 months of exercise on cardiac-related brain pulsatility in older adults using BOLD fMRI

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0951 Microstructural Correlates of Cognitive Performance in Aging

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0956 Human age is predicted by a linear covariation of brain network and behavioral factors

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0957 Lower education is accompanied by greater longitudinal brain network decline in older adults

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0962 RsFC-Based Brain Aging in Depression is associated with Increased Impulsivity and Response to TMS

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0965 Basal Ganglia Connectivity in Senior Adults Has High Sensitivity to Time-of-Day Effect

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0970 Aging is associated with higher glucose cost and beta amyloid burden in the sensorimotor cortex

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0971 Cortical Atrophy in Adults 80+ Years with Superior Memory vs Cognitively Average Middle-Age Adults

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0973 Characterizing the Generalizability of an Attention Neuromarker in Healthy Aging

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0974 Brain microstructure and cognitive aging in community-dwelling older adults

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0975 Mapping Memory Related Tissue Changes in Healthy Aging via Multidimensional Diffusion Encoding at 7T

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0979 Intranasal Oxytocin Modulates the Salience Network in Aging

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0980 Statistical estimation of accelerated brain aging after mild traumatic brain injury in older adults

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0984 Default mode network dysfunction in geriatric mild traumatic brain injury vs. Alzheimer's disease

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0985 The Musicians Aging Brain

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0987 Oxytocin Facilitates Neural Recruitment in Medial Prefrontal Cortex and Superior Temporal Gyrus

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0989 Predicting Alzheimer's disease susceptibility from cerebellar gradients

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0990 Age differences in white matter: a 3-way multimodal fusion analysis.

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0991 APOE4 genotype and air pollution interact to predict brain structure in healthy adults in UK Biobank
Lauren Salminen[1], Fabrizio Pizzagalli[1], Alyssa Zhu[1], Talia Nir[1], Joanna Bright[1], Neda Jahanshad[1], Paul Thompson[1]
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0993 WMH and PVS mapping from clinical MRI using semi-supervised multi-modal convolutional neural network
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0994 Age-related Changes in Cortical Architecture and Cognitive Function
Akihiro Sasaki[1], Takuya Hayashi[2], Joonas Autio[3], Hikaru Fukutomi[1], Kyosuke Watanabe[1], Kei Mizuno[1], Yasuyoshi Watanabe[1]
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Early life, Adolescence, Aging

0867 Restricted plasticity after long-term unilateral deprivation in adolescents with profound deafness
Carly Anderson[1,2], Blake Papsin[3,4], Sharon Cushing[3,4], Karen Gordon[1,2,3,4]
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0872 Distinct developmental trajectory of middle temporal gyrus sub-regions from children to adult
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0874 Influence of normal variation in birthweight on brain structure in later life
Emily Wheater[1], Simon Cox[1], Mark Bastin[1], Susan Shenkin[1], María Valdés-Hernández[1], Susana Munoz-Maniega[1], Joanna Wardlaw[1], Ian Deary[1], James Boardman[1]
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0876 Striatal dopamine function contributes to the effect of incentives on adolescent inhibitory control
Ashley Parr[1], Finnegan Calabro[1], Bart Larsen[2], Valur Olafsson[3], Beatriz Luna[1]
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0880 Reduced frontopolar volume links childhood trauma to adulthood obesity
Lingli Zhang[1], Qiang Luo[2], Fei Li[1], Trevor Robbins[3]
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0892 Inferring the infant pain experience
Eugene Duff[1], Sean Fitzgibbon[2], Luke Baxter[1], Fiona Moultrie[1], Alexandre Abos[3], Sezgi Goksan[4], Tor Wager[5], Rebeccah Slater[1]
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0895 Refining the fingerprint: Optimising connectome fingerprinting for neurodevelopmental applications
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0898 Spatiotemporal patterns of sulcal pits in the fetal brain
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0902 Parenting behavior and brain functional connectivity development in children
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0907 Neurodevelopment of Semantic Systems in Reading
Fanlu Jia[1]
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0909 Investigating brain structural variation in infants with congenital heart disease
Isabel Ng[1], Alexandra Bonthrone[1], Christopher Kelly[1], Emer Hughes[1], Jakki Brandon[1], Camilla O'Keeffe[1], Lucilio Cordero-Grande[1], Anthony Price[1], Jana Hutter[1], Andreas Schuh[2], Daniel Rueckert[2], Joseph Hajnal[1,3], John Simpson[4], David Edwards[1], Mary Rutherford[1], Dafnis Batalle[1,5], Serena Counsell[1]
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0916 Sex Differences in Adolescent Functional Connectivity Maturation Relate to Major Depression
Lena Dorfschmidt[1], František Váša[2], Simon White[1], Petra Vertes[1], Edward Bullmore[1]
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0929 Sex Continuum: Brain, Body, and Personality
Daniel Vosberg[1], Catriona Syme[2], Louis Richer[3], Zdenka Pausova[4], Tomas Paus[5]
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0939 Metacognition using Child-Parent Perspectives Scale: The Cortical Thickness Contribution
Kelssy Kawata[1], Akiko Uematsu[1], Yuko Nakamura[1], Naohiro Okada[1], Kiyoto Kasai[1], Shinsuke Koike[1]
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0943 Generative models of network rewiring during neurodevelopment
Xiaolong Zhang[1], Urs Braun[1], Ren Ma[1], Gabriela Gan[1], Markus Reichert[1], Ulrich Ebner-Priemer[2], Andreas Meyer-Lindenberg[1], Danielle Bassett[3], Heike Tost[1]
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0945 Decomposing the role of alpha oscillations during brain maturation using aperiodic signal components
Marius Tröndle[1], Christian Pfeiffer[1], Nicolas Langer[1]
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0948 Prenatal stress alters hypothalamic-pituitary-gonadal axis structures in adults: Project Ice Storm
Sherri Lee Jones[1], Chloe Anastassiadis[2], Matthieu Dupuis[3], Guillaume Elgbeili[3], François-Pierre Marcoux[4], James Gazetas[4], Gabriel Devenyi[2], Jamie Near[2], David Laplante[3], Tuong-Vi Nguyen[5], Jens Pruessner[6], Suzanne King[2]
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0949 Developmental trajectory of striatal reward processing relates to subclinical psychiatric risk
Ren Ma[1], Gabriela Gan[1], Markus Reichert[1], Marco Giurgiu[2], Urs Braun[1], Kristina Schwarz[1], Carolin Moessnang[1], Iris Reinhard[1], Ulrich Ebner-Priemer[2], Andreas Meyer-Lindenberg[1], Heike Tost[1]
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0952 Amygdalar Emotional Responses Moderating the Links Between Family Conflict and Youth Adjustment
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0953 Longitudinal development of brain iron is linked to cognition in youth
Bart Larsen[1], Josiane Bourque[1], Tyler Moore[1], Azeez Adebimpe[1], Monica Calkins[1], Mark Elliott[1], Raquel Gur[1], Ruben Gur[1], Paul Moberg[1], David Roalf[1], Kosha Ruparel[1], Bruce Turetsky[1], Simon Vandekar[2], Daniel Wolf[1], Russell Shinohara[1], Theodore Satterthwaite[1]
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0954 Greater age-related changes in fronto-limbic white matter morphometry following early life stress
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0955 Early malnutrition induced premature cognitive aging is mediated by Brain States set at school-age
Fuleah Abdul Razzaq[1], Carlos Naranjo[1], Maria L. Bringas-Vega[2], Lidice Galán-García[3], Arielle Rabinowitz[4], Janina Galler[5], Jorge Bosch-Bayard[6], Pedro A. Valdés-Sosa[7]
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0959 Lifespan Volume Trajectories from Non-Harmonized T1-weighted MRI Before and After Site Correction
Sarah Treit[1], Emily Stolz[1], Julia Rickard[1], Prayash Katlariwala[1], Cheryl McCreary[2], Mercedes Bagshawe[2], Kassondra Pedenko[2], Richard Frayne[2], Catherine Lebel[2], Derek Emery[1], Christian Beaulieu[1]
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0960 Development of Neonatal Structural Covariance Networks
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0961 Early Parenting Intervention Effects on Brain Responses to Maternal Cues Among High-Risk Children
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0964 Region-specific Early Developmental Patterns of the Nodal Efficiency in the Infant Brain
Weixiong Jiang[1], Zhen Zhou[1], Xuyun Wen[1], Bing Jing[1], Tae-Eui Kam[1], Li-Ming Hsu[1], Li Wang[1], Zhengwang Wu[1], Guoshi Li[1], Kim-Han Thung[1], Pew-Thian Yap[1], Dinggang Shen[1], Weili Lin[1], Han Zhang[1], for UNC/UMN Baby Connectome Project Consortium[2]
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0969* Discovering developmental patterns and regionalization of cortical myelin during the first two years
Ying Huang[1], Fan Wang[1], Zhengwang Wu[1], Tengfei Li[1], Xifeng wang[2], Li Wang[1], Weili Lin[1], Dinggang Shen[1], Gang Li[1], for UNC/UMN Baby Connectome Project Consortium[1]
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0976 Differential structural brain development of healthy adolescents with lower and higher IQ
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0977 Arithmetic in the developing bilingual brain
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0978 Increased Spectral Power in Default Mode Networks in Adolescents
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0981* Harmonious family climate mediates the impact of socioeconomic status on child brain function
Han Zhang[1], Guodong Liu[1], Anqi Qiu[1]
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0982 Sex specific neurodevelopmental associations with maternal and paternal history of suicide in ABCD
Alyssa Zhu[1], Paul Thompson[1], Neda Jahanshad[1]
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0986 Neural correspondence of primary and secondary reward processing in typically developing children
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0988 Developmental Trajectories of Cortical Thickness are Confounded by Age-Related MRI Quality Variance
Shady Damaty[1], Yewon Chun[1], Macy Curell[1], Veronica Mucciarone[1], Amanda Patterson[1], Aditya Sarkar[1], Rachel Schroeder[2], Emma Rose[3], Diana Fishbein[3], John VanMeter[1]
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0992 Monkey Offspring Functional Brain Connectivity Echoes Prior Human Findings Predicting Maternal IL-6
Julian Ramirez[1], Oscar Miranda-Dominguez[2], Elina Thomas[2], AJ Mitchell[2], Robert Hermosillo[2], Mollie Marr[2], Darrick Sturgeon[2], Samantha Papadakis[2], Jennifer Bagley[3], Jarod Rasmussen[4], Pathik Wadhwa[4], Claudia Buss[4], Eric Feczko[2], Michael Milham[1], Ting Xu[1], Alice Graham[2], Elinor Sullivan[3], Damien Fair[5]
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Normal Brain Development: Fetus to Adolescence

0863* Tracking white matter development in the human fetus
Sian Wilson[1], Maximillian Pietsch[1,2], Daan Christiaens[1,2,3], Lucilio Cordero-Grande[1,2], Anthony Price[1,2], Jana Hutter[1,2], Emer Hughes[1], Serena Counsell[1], Donald Tournier[1,2], Tomoki Arichi[1,2,4], Joseph Hajnal[1,2], David Edwards[1], Jonathan O'Muircheartaigh[1,5]
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0865* The Developing Human Connectome Project: functional connectivity across the perinatal period
Michael Eyre[1], Sean Fitzgibbon[2], Judit Ciarrusta[1], Lucilio Cordero-Grande[1], Anthony Price[1], Tanya Poppe[1], Andreas Schuh[3], Emer Hughes[1], Camilla O'Keeffe[1], Jakki Brandon[1], Daniel Cromb[1], Katy Vecchiato[1], Jesper Andersson[2], Eugene Duff[2], Serena Counsell[1], Steve Smith[2], Daniel Rueckert[3], Joseph Hajnal[1], Tomoki Arichi[1], Jonathan O'Muircheartaigh[1], David Edwards[1], Dafnis Batalle[1]
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0868 Exploring the microstructural properties of the newborn sensorimotor network with diffusion MRI
Maelig Chauvel[1,2], Francois Rheault[3], Cindy Rolland[1,2], Kevin Aubrain[1,2], Francois Leroy[4,2], Heloise de Vareilles[2], Gabriel Girard[5,6], Denis Riviere[2], Lucie Hertz-Pannier[2,1], Jean-François Mangin[2], Maxime Descoteaux[3], Jessica Dubois[1,2,7]
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0871 Performance Evaluation of Open Source Neonatal Brain Extraction Software using Public Datasets
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0877 Brain activation patterns in newborns: The influence of prenatal exposure to a foreign language
Laura Caron-Desrochers[1], Natacha Paquette[1], Phetsamone Vannasing[2], Julie Tremblay[2], Alejandra Hüsser[1], Kassandra Roger[1], Sarah Provost[1], Clémence Noiseux[1], Sarah Kraimeche[1], Pauline Lebret[2], Florence Ménard[1], Catherine Taillefer[2], Isabelle Boucoiran[2], Anne Gallagher[1]
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0882 The Development Gradients in the School-age Children Connectome
Yunman Xia[1], Ziyi Shi[1], Tianyuan Lei[1], Xinyu Liang[1], Xiaodan Chen[1], Xuhong Liao[2], Tengda Zhao[1], Weiwei Men[3], Yanpei Wang[1], Shaozheng Qin[1], Jiahong Gao[3], Tao Sha[1], Dong Qi[4], Mingrui Xia[1], Yong He[1]
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0885 The Organization of the Brain Functional Connectome Follows Puberty-Dependent Nonlinear Trajectories
Zeus Gracia-Tabuenca[1], Martha Beatriz Moreno[1], Fernando Barrios[1], Sarael Alcauter[1]
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0890 Resting state functional networks in 1-to-3-year-old typically developing children
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0900 Association between the thickness of transient fetal cortical compartments and gene expression
Lana Vasung[1], Chenying Zhao[2], Jennings Zhang[1], Hyuk Jin Yun[1], Caitlin Rollins[1], Clemente Velasco-Annis[1], Kiho Im[1], P Grant[1], Simon Warfield[1], Ali Gholipour[1], Hao Huang[2]
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0910* High temporal resolution longitudinal observation of fetal brain development. A baboon pilot study
Olivier Coulon[1], Julien Sein[2], Guillaume Auzias[2], Bruno Nazarian[2], Jean-Luc Anton[2], Rousseau Francois[3], Lionel Velly[2], Nadine Girard[4]
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0912 Multilayer network dynamics at birth predicts cognitive and language function at two years of age
Yuehua Xu[1], Xuhong Liao[2], Miao Cao[3], Tina Jeon[4], Minhui Ouyang[4], Lina Chalak[5], Nancy Rollins[6], Hao Huang[7], Yong He[1]
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0917 Brain Structure Related to Irritability in Early Childhood across Two Clinically Enriched Samples
Ashley Nielsen[1], Michael Gaffrey[2], Joan Luby[3], Deanna Barch[3], Lauren Wakschlag[1], Elizabeth Norton[1]
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0919 Early mother-child attachment security predicts child white matter microstructure 9 years later
Fanny Dégeilh[1,2], Élizabel Leblanc[1], Véronique Daneault[1,3,4], Miriam Beauchamp[1,2], Annie Bernier[1]
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0926 Developmental Trajectories of the Rat Brain: an In-vivo High-Resolution MRI Study
Erika Gonzalez-Perez[1], Juan Ortiz-Retana[1], Sarael Alcauter[1]
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0928* The subgrouping structure of newborns with heterogenous brain-behavior relationships
Yuanyuan Chen[1], Shuxin Liu[1,2], Andrew Salzwedel[1], Rebecca Stephens[3], Emil Cornea[3], Barbara Goldman[4], John Gilmore[3], Wei Gao[1,5]
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0936 Developmental Brain Module Dynamics Associates with Transcriptome Profiles in School-Age Children
Tianyuan Lei[1,2,3], Xuhong Liao[4], Xiaodan Chen[1,2,3], Yuehua Xu[1,2,3], Weiwei Men[5,6], Yanpei Wang[1], Shaozheng Qin[1,2,3], Shuping Tan[7], Jiahong Gao[5,6,8], Tao Sha[1], Qi Dong[1], Yong He[1,2,3]
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0938 Dramatic Reconfiguration of Functional Connectivity Patterns in Infant Brains During Third Trimester
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0940 Functional connectivity centrality in the developing Human Connectome Project
Sunniva Fenn-Moltu[1,2], Sean Fitzgibbon[3], Judit Ciarrusta[1,2], Stefan Holiga[4], Lucilio Cordero-Grande[2], Andreas Schuh[5], Ralica Dimitrova[2], Jakki Brandon[2], Katy Vecchiato[1,2], Anthony Price[2], Emer Hughes[2], Eugene Duff[3,6], Joerg Hipp[4], Jonathan O'Muircheartaigh[1,2], Tomoki Arichi[2,7], Christopher Chatham[4], Daniel Rueckert[5], Joseph Hajnal[2], Grainne McAlonan[1], A. David Edwards[2], Dafnis Batalle[1,2]
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0942 Folding Dynamics of the Sylvian Fissure : a Longitudinal Study on Preterms
Héloïse de Vareilles[1], Denis Riviere[1], Manon Benders[2], Zhong Yi Sun[1], Clara Fischer[1,3], Francois Leroy[4], Jessica Dubois[5,6], Jean-François Mangin[1,3]
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0946 Reduced fiber density in the white matter of premature born adults
Aurore Menegaux[1], Dennis Hedderich[2], Josef Bäuml[2], Andrei Manoliu[3], Marcel Daamen[4], Henning Boecker[4], Peter Bartmann[4], Dieter Wolke[5], Christian Sorg[6], Philipp Stämpfli[7]
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0958 Development of white matter tract axonal density in early childhood
Dennis Dimond[1], Stella Heo[1], Amanda Ip[1], Christiane Rohr[1], Ryann Tansey[1], Kirk Graff[1], Thijs Dhollander[2], Robert Smith[2], Catherine Lebel[1], Deborah Dewey[1], Alan Connelly[2], Signe Bray[1]
[1]University of Calgary, Calgary, Alberta, [2]The Florey Institute of Neuroscience and Mental Health, Melbourne, Victoria

0966 Early Childhood Stress is Associated with Blunted Development of Ventral Tegmental Area Connectivity
Anne Park[1], Ursula Tooley[1], Austin Boroshok[1], Julia Leonard[1], Allyson Mackey[1]
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0967 Non-linear effects of socioeconomic status on brain and language development
Budhachandra Khundrakpam[1], Suparna Choudhury[1], Uku Vainik[2], Noor Al-Sharif[1], Neha Bhutani[1], Seun Jeon[1], Alan Evans[1]
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0968 Dense Temporal Mapping of Cortical Microstructure in the Early Developing Brain
Khoi Huynh[1,2], Ye Wu[1], Kim-Han Thung[1], Sahar Ahmad[1], Zhengwang Wu[1], Weili Lin[1,2], Han Zhang[1], Li Wang[1], Gang Li[1], Pew-Thian Yap[1,2], the UNC/UMN Baby Connectome Project Consortium[1]
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0972 The effect of body mass on hippocampal shape across childhood and adolescence
Kirsten Lynch[1], Kathleen Page[1], Arthur Toga[2], Kristi Clark[1]
[1]University of Southern California, Los Angeles, CA, [2]Laboratory of Neuro Imaging, Keck School of Medicine of USC, University of Southern California, Los Angeles, CA

0983 Developmental Heatmaps of Brain Functional Connectivity from Newborns to 6-year-olds
Haitao Chen[1,2], Yuanyuan Chen[1], Andrew Salzwedel[1], Emil Cornea[3], John Gilmore[3], Wei Gao[1,4]
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Lifespan Development Other

0856 Structural properties of human superior longitudinal fasciculus lateralization along the lifespan
Kaoru Amemiya[1,2], Eiichi Naito[1,2], Hiromasa Takemura[1,2]
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0866 Task-context functional connectivity differences across the lifespan
Patrick Pruitt[1], Lingfei Tang[1], Jessica Hayes[1], Noa Ofen[1], Jessica Damoiseaux[1,2]
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0873 Prematurity affects functional cortical networks and their relationship to neurological performance
Pauliina Yrjölä[1,2,3], Susanna Stjerna[2,3,4], Sampsa Vanhatalo[2,3,4], Anton Tokariev[2,3]
[1]Aalto University, Espoo, Finland, [2]University of Helsinki, Helsinki, Finland, [3]Baby Brain Activity Center, Helsinki, Finland, [4]Helsinki University Central Hospital, Helsinki, Finland

0879 Brain-Wide Functional Connectivity Differences During Movie-Watching and Rest Across Development
Sara Sanchez-Alonso[1], Monica Rosenberg[2], Richard Aslin[1]
[1]Haskins Laboratories & Yale University, New Haven, CT, [2]University of Chicago, Chicago, IL

0883 Prenatal exposure to antiepileptic drugs affects cortical networks of newborns
Anton Tokariev[1,2], Mari Videman[1,3,4], Sampsa Vanhatalo[1,2,3,4]
[1]University of Helsinki, Helsinki, Finland, [2]Baby Brain Activity Center, Helsinki, Finland, [3]Helsinki University Hospital, Helsinki, Finland, [4]New Children's Hospital, Helsinki, Finland

0901 Functional connectivity signatures of sex chromosome aneuploidies
Iliana Karipidis[1], Allan L. Reiss[1], David S. Hong[1]
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0963 Maternal Health Factors and Intracranial Hemorrhage Associations with Preterm Neonates' Brain Volume
Wesley Surento[1], Iyad Ba Gari[1], Zhe Sun[1], Joshua Boyd[1], Hosung Kim[2], Paul Thompson[1], Rowena Cayabyab[3], Mark Shiroishi[1], Neda Jahanshad[1]
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MODELING AND ANALYSIS METHODS

Activation (eg. BOLD task-fMRI)

1010 What is the test-retest reliability of common task-fMRI measures?
Maxwell Elliott[1], Annchen Knodt[1], David Ireland[2], Meriwether Morris[1], Richie Poulton[2], Sandyha Ramrakha[2], Maria Sison[1], Terrie Moffitt[1], Avshalom Caspi[1], Ahmad Hariri[1]
[1]Duke University, Durham, NC, [2]University of Otago, Dunedin, Otago

1035 BOLD fMRI to assess the impact of alcohol advertisements in young drinkers
Quentin Duché[1], Elise Bannier[1,2], Jacques François Diouf[3], Romain Moirand[4], Karine Gallopel-Morvan[5], Sophie Lacoste-Badie[6], Olivier Droulers[3]
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1118 Language signatures in intrinsic functional space and their perturbations in epileptic patients
Elise Roger[1], Jessica Royer[2], Sara Lariviere[3], Sonja Banjac[1], Qiongling Li[4], Lorenzo Caciagli[5], Monica Baciu[1], Boris Bernhardt[6]
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1170 An fMRI Study of Emotional Working Memory in Males with Childhood Sexual Abuse Histories
Carley Chiasson[1], Andra Smith[1], Jessie Moorman[1], Elisa Romano[1]
[1]University of Ottawa, Ottawa, ON

1185 Exercise versus diet effects on the neuronal response to visual food cues
Kristina Legget[1], Marc-Andre Cornier[1], Brianne Sutton[1], Allison Hild[1], Jason Tregellas[1]
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1197 Pain conditioning of behavioural and regional brain responses to tussive stimuli.
Abubakar Abubakar[1], Matthew Dimmock[1], Stuart Mazzone[2], Michael Farrell[1]
[1]Monash University, Melbourne, Australia, [2]The University of Melbourne, Melbourne, Australia

1199 Genetic variation of PDE4B modulates activity of brain regions relevant for psychiatric disorders
Karolin Einenkel[1], Jens Treutlein[1], Esther Diekhof[2], Bernd Kraemer[1], Anja Richter[1], Oliver Gruber[1]
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1202 Cognitive Evaluation in Adult Survivors of Childhood Acute Lymphoblastic Leukemia using fMRI
Daniel Svärd[1], Eva Marie Erfurth[2], Robin Hellerstedt[3], Peter Mannfolk[4], Johan Mårtensson[5], Cecilia Follin[6]
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1224 Quantifying consistency of activation across individuals and groups: the case of perinatal stroke
Kelly Martin[1], Anna Seydell-Greenwald[1], William Gaillard[2], Peter Turkeltaub[1,3], Elissa Newport[1,3]
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1229 A Novel Approach for Group fMRI Studies Using BrainSync Transform and Pairwise Statistics
Anand Joshi[1], Soyoung Choi[1], Jian Li[1], Haleh Akrami[1], Richard Leahy[1]
[1]University of Southern California, Los Angeles, CA

1251 Efficient modelling of oxygen diffusion in the fMRI voxel using a finite element method.
Jeremie Tanguay[1,2], Louis Gagnon[1,2], Mathieu Walsh[1,2], Ludovic Plasman[1], Jean Deteix[1], Louis Archambault[1,2], Michèle Desjardins[1,2]
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1265 Uncovering latent brain state dynamics during sustained attention task
Ayumu Yamashita[1,2,3,4], David Rothlein[1,4], Aaron Kucyi[5], Eve Valera[6], Michael Esterman[1,4]
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1286 Diverging Neural Processes Underlying Pain Expectation in Fibromyalgia vs. Healthy Subjects
Angelica Sandström[1], Isabel Ellerbrock[2], Jeanette Tour[2], Diana Kadetoff[2], Karin Jensen[2], Eva Kosek[2]
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1309 Brain activity during task-based fMRI as predictor for antidepressant response to agomelatine
Sandi Hebib[1], Egle Simulionyte[1], Helena Metzker[1], Maximilian Lueckel[1], Eva Gruber[1], Oliver Gruber[1]
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1311 Latent Variable Modeling Enhances Individual Differences Analyses of Task Activation fMRI
Shelly Cooper[1], Todd Braver[2]
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1338 Machine Learning Modeling for the Prediction of Stop Signal Reaction Time in the ABCD study
Dekang Yuan[1], Sage Hahn[1], Max Owens[1], Nicholas Allgaier[1], Hugh Garavan[2]
[1]University of Vermont, Burlington, VT, [2]The University of Vermont, Burlington, VT

1345 Neuroplastic effects of SSRIs evaluated with learning tasks and fMRI
Murray Reed[1], Thomas Vanicek[1], Rene Seiger[1], Alexander Kautzky[1], Manfred Kloebl[1], Paul Michenthaler[1], Benjamin Spurny[1], Patricia Handschuh[1], Vera Ritter[1], Jakob Unterholzner[1], Alim Basaran[1], Godber Godbersen[1], Gregor Gryglewski[1], Christoph Kraus[1], Dietmar Winkler[1], Andreas Hahn[1], Rupert Lanzenberger[1]
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1362 Driving with distraction: brain activity and oculomotor behaviour using fMRI and eye-tracking
Nicole Yuen[1,2], Fred Tam[2], Nathan Churchill[3], Tom Schweizer[3], Simon Graham[1,2]
[1]University of Toronto, Toronto, Ontario, [2]Sunnybrook Research Institute, Toronto, Ontario, [3]St. Michael's Hospital, Toronto, Ontario

1373 Differentiating of Cortical Neuronal Encoding Direction of Wrist Movements using fMRI and fNIRS
Maziar Jalalvandi[1,2], Nader Riahi Alam[2,3], Hamid Sharini[1]
[1]Kermanshah University of Medical Sciences, Kermanshah, Kermanshah, [2]Tehran University of Medical Sciences, tehran, Iran, Islamic Republic of, [3]Concordia University, PERFORM Center, Montreal, Quebec, Canada., Montreal, Quebec, Canada.

1396 High-Resolution 7T-fMRI of Human Hippocampal Subfields During Threat Generalization
Ashley Huggins[1], Carissa Weis[1], Elizabeth Parisi[1], Kenneth Bennett[1], Christine Larson[1]
[1]University of Wisconsin-Milwaukee, Milwaukee, WI

1440 Detecting task events in fMRI time series based on the topological structure of visibility graphs
Adrian Onicas[1], Tommaso Gili[1], Luca Cecchetti[1], Emiliano Ricciardi[1]
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1462 An Empirical Investigation of the Benefit of Increasing the Temporal Sampling Rate of fMRI Data
Virág Darányi[1], Petra Hermann[1], Zoltán Vidnyánszky[1], Zoltan Nagy[2]
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1467 Implications of handedness on language brain lateralization in early bilinguals
Maite Termenon[1], Stefano Moia[1], Pedro Paz-Alonso[1], Nicola Molinaro[1,2], Simona Mancini[1], Bernard Mazoyer[3,4,5], Nathalie Tzourio-Mazoyer[3,4,5], Fabrice Crivello[3,4,5], Manuel Carreiras[1,2], César Caballero-Gaudes[1]
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1504 Neural Spatial Working Memory Changes During Spaceflight
Ana Paula Salazar[1], Kathleen Hupfeld[1], Heather McGregor[1], Nichole Gadd[2], Igor Kofman[2], Yiri De Dios[2], Scott Wood[3], Ajitkumar Mulavara[2], Jacob Bloomberg[3], Patricia Reuter-Lorenz[4], Rachael Seidler[1]
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1530 Imaging of the cortex, brainstem and cerebellum during grip force control
Trina Mitchell[1], Winston Chu[1], David Vaillancourt[1]
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1563 Test-Retest Reliability of fMRI Drug Cue Reactivity
Rayus Kuplicki[1], Hamed Ekhtiari[1], Martin Paulus[1]
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1567 Compensatory Neural Mechanisms during Intact Verbal-Associative Learning in Temporal Lobe Epilepsy.
Kapil Chaudhary[1], Shilpi Modi[1], Gaelle Doucet[2], David Weinstein[3], Ashith Kumar[1], Andrew Crow[1], Xiaosong He[4], Chaitanya Ganne[5], Michael Sperling[1], Joseph Tracy[1]
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1569 Language Lateralization in Temporal Lobe Epilepsy as Measured by Lexical Reading of Exception Words
Shaylyn Kress[1], Josh Neudorf[1], Layla Gould[1], Marla Mickleborough[1], Kate Gibb[2], Ron Borowsky[1]
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1577 In Search for a Transdiagnostic Abnormal Emotion Regulatory Network: A Neuroimaging Meta-analysis
Zahra Soltaninejad[1], Tina Khodadadifar[2], Claudia Eickhoff[3], Christian Sorg[4], Thilo van Eimeren[5], Kai Vogeley[6], Mojtaba Zarei[1], Simon Eickhoff[7], Masoud Tahmasian[1]
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1618 Cerebral network synchronization and attention demand
Alexander Poznanski[1], Asadur Chowdury[1], Vaibhav Diwadkar[1]
[1]Wayne State University, Detroit, MI

1637 Whole-brain HRF Parameters Investigation from Functional Magnetic Resonance Imaging
Asma Qureshi[1], Amanda Taylor[1], Jung Hwan Kim[1], David Ress[1]
[1]Baylor College of Medicine, Houston, TX

1650 Comparing driving neural networks with cognitive test-related brain activity
Natasha Talwar[1], Nathan Churchill[1], Megan Hird[1], Iryna Pshonyak[1], Fred Tam[2], Corrine Fischer[1], Simon Graham[2], Tom Schweizer[1]
[1]St. Michael's Hospital, Toronto, Ontario, [2]Sunnybrook Research Institute, Toronto, Ontario

1691 The Neural Impact of Felt-Gender Minority Stress on Working Memory
Hannah Loso[1], Bader Chaarani[1], Sarah Jane Dube[1], Nicholas Allgaier[1], Hugh Garavan[2], Alexandra Potter[1]
[1]University of Vermont, Burlington, VT, [2]The University of Vermont, Burlington, VT

Bayesian Modeling

1043 Bayesian network change point detection using weighted stochastic block model for task fMRI
Lingbin Bian[1], Tiangang Cui[1], Adeel Razi[1], Jonathan Keith*[1]*
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1110 MRI-based prediction of medication response and surgical outcome in temporal lobe epilepsy
Hyo Lee[1], Fatemeh Fadaie[1], Ravnoor Gill[1], Benoit Caldairou[1], Seok-Jun Hong[1], Andrea Bernasconi[1], Neda Bernasconi[1]
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1452 The signal in the noise: modelling site variation across surface-based and volumetric image features
Hester Huijsdens[1], Richard Dinga[2], Maarten Mennes[3], Thomas Wolfers[4], Christian Beckmann[5], Seyed Kia[6], Andre Marquand[7]
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1606 Template ICA: Leveraging big data priors for accurate estimation of individual brain networks
Amanda Mejia[1], Mary Beth Nebel[2], Yikai Wang[3], Brian Caffo[4], Ying Guo[3]
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Classification and Predictive Modeling

0999 Biological brain age prediction ability of different subcortical structures using deep learning
Pauline Mouches[1], Banafshe Felfeliyan[2], Sönke Langner[3], Nils Forkert[1]
[1]Department of Radiology and Hotchkiss Brain Institute, University of Calgary, Calgary, Alberta, [2]McCaig Institute for Bone & Joint Health, University of Calgary, Calgary, Alberta, [3]Institute for Diagnostic Radiology and Neuroradiology, University Medicine Rostock, Rostock, Mecklenburg-Vorpommern

1004 A Connectivity-based Psychometric Prediction Framework for Brain-behavior Relationship Studies
Jianxiao Wu[1,2], Simon Eickhoff[1,2], Felix Hoffstaedter[1,2], Kaustubh Patil[1,2], Holger Schwender[2], Sarah Genon[1,2]
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1013 The Dos and Don'ts of Connectomics
Jaewon Chung[1], Jayanta Dey[1], Joshua Vogelstein[1]
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1017 Network-specific modification of brain state by Naturalistic Viewing
Susanne Weis[1], Felix Hoffstaedter[2], Lisa Mochalski[3], Robert Langner[4], Simon Eickhoff[2], Kaustubh Patil[2]
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1018 Predicting brain function from anatomy in humans using neuroimaging and geometric deep learning
Fernanda Ribeiro[1], Steffen Bollmann[1], Alexander Puckett[1]
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1020 A deep learning-based approach to distinguish the brain structure of children with and without ADHD
Chung-Yuan Cheng[1], Yu-Chieh Chen[2], Susan Gau[3]
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1040 Unary classification & PCA feature extraction for generalized fMRI decoding under rapid-event design
Tsz Yan So[1], Hakwan Lau[2,1]
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1060 Machine Classification of Brain SPECT Images Using Stochastic Discrimination Machine Learning
David Wack[1], Venkatapavani Punugu[1], Robert Miletich[1]
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1079 Connectome-based predictions of processing speed in aging population
Mengxia Gao[1,2], Clive Wong[1,2], Tatia Lee[1,2]
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1095 Meta-matching: exploiting large-scale datasets to boost RSFC behavior prediction in small studies
Tong He[1], Lijun An[1], Jiashi Feng[1], Simon Eickhoff[2], B.T. Thomas Yeo[1]
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1102 Comprehensive brain reading: decoding mental processes from Web repositories of fMRI
Romuald Menuet[1], Jérôme Dockès[2], Gaël Varoquaux[1], Bertrand Thirion[3]
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1112 Predicting BMI from whole-brain functional connectivity
Erin Yeagle[1], Javid Dadashkarimi[2], Siyuan Gao[3], Abigail Greene[1], Daniel Barron[1], Vivian Duan[4], Dustin Scheinost[2]
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1126 A hierarchical classifier for temporal ICA component classification for denoising fMRI data
Chunhui Yang[1], Timothy Coalson[1], Steve Smith[2], David Van Essen[1], Matthew Glasser[3]
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1133* Brain Gender Spectrum
Yi Zhang[1], Qiang Luo[1], Jianfeng Feng[1], Barbara Sahakian[2], Edward Bullmore[2]
[1]Fudan University, Shanghai, Shanghai, [2]University of Cambridge, Cambridge, Cambridgeshire

1138 High positive predictive value in classification of progression from mild cognitive impairment to AD
Debra Dawson[1], Ziqi Hao[2], Kelvin Mok[1], Li Lin[3], Ying Han[3], Pierre Bellec[4], Amir Shmuel[1]
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1139 Behavioral performance prediction in aging with advanced resting-state imaging acquisitions
Scott Peltier[1], Michelle Karker[1], Bruno Giordani[1], Henry Paulson[1], Benjamin Hampstead[1]
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1143 Self-supervised deep learning from sleep EEG signals
Hubert Banville[1,2], Isabela Albuquerque[3], Aapo Hyvârinen[4], Graeme Moffat[2], Denis-Alexander Engemann[1], Alexandre Gramfort[1]
[1]Inria, Université Paris-Saclay, Paris, France, [2]InteraXon Inc., Toronto, Canada, [3]INRS-EMT, Université du Québec, Montréal, Québec, [4]University of Helsinki, Helsinki, Finland

1147 Commonality and specificity across psychosis sub-groups using brain dynamic functional connectivity
Yuhui Du[1,2], Hui Hao[1], Shuhua Wang[1], Godfrey D Pearlson[3], Vince Calhoun[2]
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1161 Clustering Based on sMRI and Relationships with Cognition, Personality Traits and Depression
Honwah Yeung[1], Xueyi Shen[1], Aleks Stolicyn[1], Matthew Harris[1], Laura De Nooij[1], Andrew McIntosh[1], Simon Cox[1], Keith Smith[2,3], Heather Whalley[1]
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1171 ABCD ML: A Machine Learning library designed for Neuroimaging data
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1196 Deep-learning based segmentation and detection of perivascular spaces in young adults
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1207 Accuracy of predicting task activity from brain connections relates to cognitive and mood measures
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1214 Predicted Age Difference of the Language Network is Associated with Explicit and Implicit Memory
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1216 Multimodal Neuroimaging for Cardiovascular Disease Risk Prediction
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1225 Incorporating bagging into Connectome Predictive Modelling
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1230 Stacking Learning of Multimodal Neuroimaging data enhances cogntive prediction
Javier Rasero[1], Timothy Verstynen[1], Amy Sentis[1], Fang-Cheng Yeh[2]
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1233 Extraction of discriminative features from EEG signals of dyslexic children, before and after cure.
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1248 Deep Net Region-Aligned Prediction (RAP) localises life factors affecting brain aging in UK Biobank
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1252 Bridging the gaps between clinical scales and brain imaging in Multiple Sclerosis
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1262 Divergence between schizophrenia and autism spectrum disorder on brain function and structure
Yuhui Du[1,2], Xingyu He[1], Xiaowen Deng[1], Yuliang Hou[1], Peter Kochunov[3], Godfrey Pearlson[4], Vince Calhoun[2]
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1272 The Contribution of Brain Structural and Functional Variance in Predicting Age, Sex and Treatment
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1274 Brain functional connectivity feature selection based on neighborhood rough set
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1275* Unfairness in RSFC-based behavioral prediction across African American and White American samples
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1277 Identification of Minimal Hepatic Encephalopathy based on Dynamic Graph Theory Analysis
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1287 Manifold learning reveals anomalies of language and memory processing in temporal lobe epilepsy
Sonja Banjac[1], Félix Renard[2], Elise Roger[1], Arnaud Attyé[3], Emilie Cousin[1], Cédric Pichat[1], Laurent Lamalle[4], Lorella Minotti[5], Chrystelle Mosca[5], Alexandre Krainik[6], Philippe Kahane[5], Monica Baciu[1]
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1294 Cortical thickness subtyping of Autism Spectrum Disorder (ASD) using Normative modeling
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1295 Automated Classification of Alzheimer's Disease with Graph Neural Network
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1296 Confound removal and normalization in practice: a neuroimaging based sex prediction case study
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1298 Fluid Intelligence Classification Based on Cortical WM/GM Contrast, Cortical Thickness and Volumetry
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1310 Factors influencing fMRI neurofeedback learning – a machine learning mega-analysis
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1318 Are there morphological subgroups in MDD and how can we find them? Towards clustering in ENIGMA MDD
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1321 Comparing Predicting Power of Three Brain Age Gap Estimation Pipelines in Major Depression Disorder
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1329 Reproducible high risk functional connectivity endophenotype for subset of ASD
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1337 Automated Segmentation of Cerebral Microbleeds and Iron Deposits using Deep Learning
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1350 A benchmark on data augmentation schemes for fMRI data
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1352 Benchmarking CPU vs GPU training of deep artificial neural networks for decoding brain activity
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1361 Learnt dynamics generalizes across tasks, datasets, and populations

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1380 Machine learning algorithm for the diagnosis of behavioural variant frontotemporal dementia

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1381 Deep Learning reconstruction of respiratory variation signals from fMRI data

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1385 Cognitive state annotation of human brain dynamics using deep graph convolution

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1392 Predicting Longitudinal Atrophy in Parkinsons dDiseas using Agent-Based Model

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1394 Controlling for Effects of Confounding Variables on Machine Learning Predictions

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1403 Automatic Placement of Anatomical Fiducials using Regression Forests and 3-Dimensional Features

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1407 Brain disorder diagnosis by fusing multi-modal brain measures using deep learning

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1414 Transfer Learning: Leveraging Big Data for Prediction in Clinical (Stuttering) Datasets

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1430 Predict functional connectivity from structural connectivity with artificial neural network

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1431 Machine Learning Based Classification of Temporal Lobe Epilepsy with the Neuropsychological Tests

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1433 Functional Connectome Fingerprinting Using a Simple Feedforward Neural Network

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1436 Dynamic network coding of working-memory domains.

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1438 Diagnostic Prediction for Major Depressive Disorder via MVPA of Cerebellum GMV Features

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1441 Exploring hippocampal activation in language and memory tasks using the machine learning approach
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1461 EGFR mutation status prediction using radiomics of brain metastasis of the contrast-enhanced T1 MRI
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1472 Detecting Clinically Variable Tissue Injuries in Neonatal MRI
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1478 Predicting individual differences in mathematical ability with functional connectivity
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1481 Towards holistic neural encoding models for multimodal naturalistic stimuli
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1482 Understanding deep learning-based brain age predictions
Simon Hofmann[1,2,3], Wojciech Samek[3], Markus Löffler[2], Klaus-Robert Müller[4,5,6], Arno Villringer[1,2,7], A. Veronica Witte[1,2]
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1541 Multimodel machine learning, feature selection and MRI: Classifying Schizophrenia
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1553 High-dimensional prescriptive inference in the focally damaged human brain
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1554 New factorization method improves brain prediction of depressive symptoms in the general population
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1566 Using CNNs for structural MRI classifications of cognitive decline on small samples
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1575 Language deficits can be predicted from multi-modal connectivity fingerprints
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1592 Identifying states with dynamic Connectome Predictive Modelling
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1597 MRI imaging-based Anatomical Markers of Post-traumatic Epilepsy
Haleh Akrami[1], Richard Leahy[1], Paul Kim[1], Christianne Heck[1], Anand Joshi[1]
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1633 Deep learning-based quality control for infant fMRI based on features beyond head motion
Zhen Zhou[1], Xuyun Wen[2], Bing Jing[1], Tae-Eui Kam[1], Li-Ming Hsu[1], Zhengwang Wu[1], Maissa Soussia[1], Kim-Han Thung[1], Li Wang[1], Gang Li[1], Pew-Thian Yap[1], Weili Lin[1], Han Zhang[1], Dinggang Shen[1], for UNC/UMN Baby Connectome Project Consortium[1]*
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1642 Prediction of early-stage Parkinson's disease using connectivity and morphometry of the striatum
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1658 Accelerated brain aging in young adult frequent cannabis users
Katja Franke[1]
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1666 Importance of feature selection in brain age estimation using structural MRI
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1669 Multimodal estimation of cognitive-load under stress
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1675 Imaging genetic strategies for predicting the quality of sleep using depression-specific biomarkers
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1677 Generalized Multimodal Predictors of Antidepressant Treatment Response Across Multiple Interventions
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1682 Stacked classification for Schizophrenia Diagnosis
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1690 Age-related Choroid Plexus Calcification:Association with subcortical brain volumes and hypertension
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1700 Modeling ADHD and Stimulant Medication Use in Adolescents With Machine Learning
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1701 Spatially Adaptive Biomarkers across Alzheimer's and Parkinsons dDiseas
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1702 Decoding behavioral responses from fMRI without learning behavioral responses from fMRI
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1712 Lesion Localization in Paediatric Epilepsy Using Patch-based Convolutional Neural Network
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1723 Effects of Pain on the Brain Hemodynamic Response of Mental Arithmetic Tasks
Foroogh Shamsi[1], Laleh Najafizadeh[1]
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1725 Encoding models of auditory features in full-length movies estimated using transfer learning
Maëlle Freteault[1,2,3], Michel Jézéquel[1,3], Pierre Bellec[2], Nicolas Farrugia[1,3]
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1727 Fusion of functional and structural connectivity improve performance in predicting fluid intelligenc
Xuetong Wang[1,2], Debin Zeng[1,2], Qiongling Li[1,2], Shuyu Li[1,2]
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1737 How are cross-validated decoding accuracies distributed across subjects?
Joram Soch[1,2], John-Dylan Haynes[1,2,3,4,5,6,7,8]
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1744 Transfer learning on EEG image based feature maps for robust classification
Daniel Campoy[1], Thomas Carr[1], Michal Mackiewicz[1], Saber Sami[1]
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1750 Multi-Kernel SVM Based on Subspace of Independent Component for Multi-Modal Classification
Shuang Gao[1,2,3], Vince Calhoun[4], Jing Sui[1,2,5]
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1752 Functional Brain Network-Subject Mapping Using Deep Siamese 3D-Convolutaional Neural Networks
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Connectivity (eg. functional, effective, structural)

0995 Functional connectivity of EEG is subject-specific, related to phenotype, and different from fMRI
Maximilian Nentwich[1], Lei Ai[2], Jens Madsen[1], Qawi Telesford[3], Stefan Haufe[4], Michael Milham[2,3], Lucas Parra[1]
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1012 Human Structural Connectomes are Heritable
Jaewon Chung[1], Jayanta Dey[1], Gregory Kiar[2], Carey Priebe[1], Joshua Vogelstein[1]
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1014 Enriching Statistical Inferences on Brain Connectivity via Latent Space Graph Embeddings
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1015 Task-driven white matter connectivity in the cognitive control network
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1016 Network localisation of multiple system atrophy derived from heterogeneous neuroimaging findings
Daniel Corp[1], Michelle Shaul[1], Elizabeth Ellis[1], Jordan Morrison-Ham[1], Juho Joutsa[2], Michael Fox[3]
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1019 Age- and Sex-Specific Influence of Testosterone-Cortisol Ratio on Cortico-Hippocampal Development
Christina Caccese[1], Sherri Lee Jones[1], Mrinalini Ramesh[2], Ally Yu[2], Marie Brossard-Racine[2], Kelly Botteron[3], James McCracken[4], Tuong-Vi Nguyen[1]
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1021 Reliability modelling of resting-state fMRI functional connectivity
Jalmar Teeuw[1], Rachel Brouwer[1], Dorret Boomsma[2], Hilleke Hulshoff Pol[1]
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1026 Rich spatio-temporal structure of spinal cord resting-state networks revealed by iCAPs
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1028 Involvement of hippocampal integrity and connectivity in multiple sclerosis
Gabriel Gonzalez-Escamilla[1], Dumitru Ciolac[1], Vinzenz Fleischer[1], Angela Radetz[1], Julia Krämer[2], Sven Meuth[2], Muthuraman Muthuraman[1], Sergiu Groppa[1]
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1039 Exploring the brain's routing strategies by simulating packet-based communication on the connectome
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1052 Uncovering the role of brain microstructural attributes on the formation of functional connectivity
Eirini Messaritaki[1], Sonya Foley[1], Krish Singh[1], Derek Jones[1]
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1062 Multi-resolution Graph Neural Network to Identify Disease Relevant Variations in Brain Connectivity
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1063 The high-creative brain can provide an optimized framework routing core cognitive functions to creat
Kaixiang Zhuang[1]
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1065 Investigating Cerebral Blood Flow and Grey Matter Covariance Networks in the Adolescent Brain
Nicholas Luciw[1,2], Simina Toma[3], Benjamin Goldstein[3,4], Bradley MacIntosh[1,2]
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1068 Causal functional brain network: An advanced approach to study brain cognitive variance
Aiying Zhang[1], Gemeng Zhang[2], Biao Cai[3], Julia Stephen[4], Tony Wilson[5], Vince Calhoun[6], Yu-Ping Wang[2]
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1070 Functional and structural connectivity predicts MS patients' motor impairment with machine learning
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1078 Gender differences in hippocampus: a combined structural and functional study
Jinhui Li[1], Qunjun Liang[1], Huiyuan Huang[1], Senning Zheng[1], Yihe Weng[1], Qinda Huang[1], Jie Song[1], Ruiwang Huang[1,2,3]
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1081 Avalanches, the Temporal Variability of Functional Connectivity, and Mental Disorders
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1085 Learning in neuromorphic networks
Laura Suarez[1], Guillaume Lajoie[2], Bratislav Misic[1]
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1086 Efficient Coding in the Economics of Human Brain Connectomics
Dale Zhou[1], Christopher Lynn[1], Zaixu Cui[1], Rastko Ciric[2], Graham Baum[3], Tyler Moore[1], David Roalf[1], John Detre[1], Ruben Gur[1], Raquel Gur[1], Theodore Satterthwaite[1], Danielle Bassett[1]
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1093 High frequency oscillations are associated with large-scale brain reorganization in epilepsy
Jessica Royer[1], Sara Lariviere[1], Casey Paquola[1], Nicolas von Ellenrieder[1], Shahin Tavakol[1], Qiongling Li[1], Reinder Vos de Wael[1], Birgit Frauscher[1], Boris Bernhardt[1]
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1119 Functional connectivity-based decoding of game performance
Uijong Ju[1], Christian Wallraven[1]
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1122 Macroscale structural manifold perturbations in autism spectrum disorder
Bo-yong Park[1], Seok-Jun Hong[1,2], Oualid Benkarim[1], Casey Paquola[1], Laurent Mottron[3], Jonathan Smallwood[4], Boris Bernhardt[1]
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1124* Structural connectome manifolds guide dynamic functional network reconfigurations
Bo-yong Park[1], Reinder Vos de Wael[1], Casey Paquola[1], Bratislav Misic[1], Danilo Bzdok[1,2], Jonathan Smallwood[3], Boris Bernhardt[1]
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1125 Predicting the Structural Connectome in Humans based on Functional and Resource Constraints
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1130 Dual regression may reduce global signal bias in fMRI functional connectivity maps
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1132 Inner- and Inter- Hemispheric Connectivity Balance in the Human Brain
Ronnie Krupnik[1], Yossi Yovel[1], Yaniv Assaf[1]
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1142 Predicting seizure outcome of epilepsy surgery using virtual resection of MEG-based brain networks
Haatef Pourmotabbed[1,2,3,4], James Wheless[3,4], Abbas Babajani-Feremi[3,4,5]
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1146 The Organization of Functional Connections Without Direct Structural Links
Zhen-Qi Liu[1], Richard Betzel[2], Bratislav Misic[1]
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1149 Brain parcellation driven by dynamic functional connectivity better predict cognitive performance
Liangwei Fan[1], Hui Shen[1], Ling-Li Zeng[1], Dewen Hu[1]
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1155 Neuroanatomical alteration is associated with moderate alcohol use in bipolar disorder
Fiona Martyn[1], Leila Nabulsi[1], Genevieve McPhilemy[1], Stefani O'Donoghue[1], Liam Kilmartin[1], Brian Hallahan[1], Colm McDonald[1], Dara Cannon[1]
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1156 Modelling hemodynamic variations for improving effective connectivity estimates of regression DCM
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1157 Stochastic Resonance and Multi-stability in Frequency-Dependent Plasticity
Caroline Lea-Carnall[1], Lisabel Tanner[1], Marcelo Montemurro[1]
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1163* Ketamine's influence on global rs-fMRI and individual variation in neuro-behavioral relationships
Flora Moujaes[1], Jie Lisa Ji[2], Katrin Preller[3], Franz Vollenweider[4], Charlie Schleifer[5], Brendan Adkinson[2], Sarah Fineberg[2], John Krystal[6], Grega Repovs[7], Nicole Santamauro[8], Aleksandar Savic[9], Youngsun Cho[8], John Murray[2], Alan Anticevic[10]
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1164 Understanding the mechanisms that establish functional connectivity in the human brain
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1168 Emergence of Canonical Functional Networks From Complex Laplacian of Structural Connectome
Xihe Xie[1], Chang Cai[2], Pablo Damasceno[2], Srikantan Nagarajan[2], Ashish Raj[2]
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1180 How tasks change whole-brain functional organization to reveal brain-phenotype relationships
Abigail Greene[1], Siyuan Gao[2], Stephanie Noble[1], Dustin Scheinost[1], R. Todd Constable[1]
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1183 Dynamic spatio-temporal brain connectivity patterns in psychosis
Emeline Mullier[1], Jakub Vohryzek[2], Alessandra Griffa[3], Yasser Aleman-Gomez[4], Paul Klauser[5], Pascal Steullet[5], Philipp Baumann[5], Philippe Conus[5], Kim Do[5], Patric Hagmann[6]
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1184 Modulation of white matter bundle connectivity in the presence of axonal truncation pathologies
Robert Smith[1,2], Fernando Calamante[3], Sanuji Gajamange[2], Scott Kolbe[4], Alan Connelly[1,2]
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1192 A Spatial Developmental Generative Model of Human Brain Structural Connectivity
Stuart Oldham[1], Ben Fulcher[2], Kevin Aquino[1], Aurina Arnatkevičiūtė[1], Rosita Shishegar[1], Alex Fornito[1]
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1193 Brain Fingerprint Analysis using resting state fMRI in Asymptomatic High-School Football Athletes
Sumra Bari[1], Nicole Vike[1], Eric Nauman[1], Joaquin Goni[1], Thomas Talavage[1]
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1204 Sex-related changes of cigarette smoking on dopamine functional circuits
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1211 Atypical Intrinsic Visual Motor Functional Connectivity Associated with Imitation Deficits in Autism
Rebecca Rochowiak[1,2], Daniel Listone[1,2], Bahar Tuncgenc[3], Carolina Pacheco[4], Romila Santra[1], Sydney Santos[1], Rene Vidal[4], Stewart Mostofsky[1,2,5,6], Mary Beth Nebel[1,6]
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1220 Relating EEG power to laminar specific fMRI connectivity.
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1256 Statistical inference for joint embeddings of multiple connectome data
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1260 Age and task load modulate association of brain network reconfiguration with spatial working memory
Wan Lin Yue[1], Kwun Kei Ng[1], Siwei Liu[1], Xing Qian[1], Joanna Su Xian Chong[1], Amelia Jialing Koh[1], Marcus Qin Wen Ong[1], B.T. Thomas Yeo[1,2], Juan Helen Zhou[1,3]
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1263 Structural covariance network changes in focal and generalized epilepsies: a worldwide ENIGMA study
Sara Lariviere[1], Maria Eugenia Caligiuri[2], Antonio Gambardella[2], ENIGMA Epilepsy Working Group[3], Raul Rodriguez-Cruces[1], Luis Concha[4], Simon Keller[5], Fernando Cendes[6], Clarissa Yasuda[6], Reetta Kälviäinen[7], Graeme Jackson[8], Magdalena Kowalczyk[8], Mira Semmelroch[8], Mariasavina Severino[9], Pasquale Striano[9], Domenico Tortora[9], Sean Hatton[10], Paul Thompson[3], Andrea Bernasconi[1], Neda Bernasconi[1], Carrie McDonald[11], Angelo Labate[2], Boris Bernhardt[1]
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1273 Functional Connectivity from Individual-fMRI-Subspace Improves Comparison of OCD and Control group
Rajan Kashyap[1], Goi Khia Eng[2,3,4], Sagarika Bhattacharjee[2], Bhanu Gupta[5], Desmond Ang[5], Shi Long[5], Roger Ho[6], Cyrus Ho[6], Melvyn Zhang[6], Rathi Mahendran[6], Kang Sim[7], SH Annabel Chen[1,2,8]
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1280 A Unified Framework for Multimodal Structure–function Mapping Based on Eigenmodes
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1284 Changes of Network Connectivity Under Mindfulness Practices Among Novice Mindfulness Practitioners
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1285 Is thresholding beneficial in longitudinal studies of structural brain networks?
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1291 Modelling EEG alpha power in eyes-open and eyes-closed states using DCM
Frederik Van de Steen[1], Dimitris Pinotsis[2], Wouter Devos[1], Katharina Wegner[1], Iege Bassez[1], Karl Friston[3], Daniele Marinazzo[1]
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1297 A 3-minute individual multimodal brain network
František Váša[1], James Cole[2], Ryan Stanyard[1], David Lythgoe[1], Vincent Giampietro[1], Owen O'Daly[1], Jakob Seidlitz[3], Stefan Skare[4], Andre Marquand[5], Steven Williams[1], Robert Leech[1]
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1308 Stress-evoked connectivity changes across time
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1312 Local dynamics and network topology disrupted in HIV revealed by whole-brain computational modeling
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1313 Assessing the validity of EEG-based network measures of brain connectivity
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1317 Probing the role of connectivity in structural covariance through a mouse model of disconnectivity
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1327 Changes in Functional Network Redundancy During Human Lifespan
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1334 Effects of interictal epileptiform discharges on electrocorticographic functional connectivity
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1343* Brain Network Connectivity Architecture of Ego Dissolution under LSD
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1357 Cohesive parcellation of rsfMRI using constrained hierarchical clustering
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1363 Improved Specificity of Functional Mapping of Thalamocortical Connections at Ultra High Field
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1364 A novel robust network community identification method for structural connectome analysis
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1376 Functional Connectivity during Frustration is Predictive of Individual Differences in Irritability
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1377 Effects of structural connectivity for the whole-brain resting-state dynamical models
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1378 Sensory Structural Connectivity in Deaf Individuals
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1379 Core and Matrix Thalamic Sub-Populations Delineate Spatiotemporal Gradients in the Resting Brain
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1383 Assortative mixing of non-topological attributes in brain networks
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1389 Characterization of structural networks supporting different aspects of amygdalar communication
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1399 Dynamic functional network connectivity reveals transient segregation increase in severe stroke
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1400 Diffuse coupling mediates complex network dynamics via the formation of quasi-critical brain states
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1401 Individual Differences in Mental Imagery Modulates Effective Connectivity of Scene Regions at Rest
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1408 Evolutionary Parameter Optimization for Resting-state Functional Connectivity Model
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1415 Test-retest reliability of functional connectivity at resting-state and naturalistic movie viewing
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1416 Effective Connectivity of Frontostriatal Systems in First-Episode Psychosis
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1417 Childhood maltreatment is associated with widespread functional dysconnectivity in adolescents
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1422 Body Mass index (BMI) and Structural Brain Connectivity in the Human Connectome Project Dataset
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1426 Dynamic functional network connectivity at rest and its behavioral correlates in response inhibition
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1447 Network structure of the mouse brain connectome with voxel resolution
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1454 Topographic patterns of connectivity between amygdala and striatum.
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1457 Revisiting correlation-based functional connectivity to compare brain anatomy and function
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1473 The Structural Basis of Individual Differences in Brain Functional Connectivity
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1474* Hemispheric specialization of the inferior parietal lobe across key cognitive domains
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1476 Functional Connectivities Mediate the Essential Hypertension History to Prospective Memory
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1484 Modelling cortical layer connectivity in the macaque brain
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1486 MEG functional connectivity and topology changes distinguish between voluntary hand and foot
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1487 The R1- weighted connectome: complementing brain networks with a myelin-sensitive measure
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1491 Targeting in the neurosurgical treatment of tremor: a connectivity study of Vim variability
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1494 Using the Free-energy Principle to Understand Neurofeedback Self-regulation learning
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1496 Altered structural covariance of the striatum in lifelong premature ejaculation patients
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1505 Functional organization of the hippocampus on its anteroposterior axis during childhood
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1506 Prediction loss aversion with topological metrics

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1508 Multilayer Brain Network Dynamics in Autism Spectrum Disorders: A Multi-Site fMRI Study

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1515 Brain Network Simulations Indicate Effect of NRG-1 on Excitation-Inhibition Balance

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1517 Enhancing the Statistical Power of Tracking Network Alterations Using Longitudinal Network Analysis

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1518 Tensor factorization based identification of brain subnetwork level correlates of clinical measures.

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1519 Interictal epileptic discharge: A biomarker of structural and functional network pathology

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1520 Evolution of functional connectivity in stroke patients: a longitudinal study

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1523 Evaluation of Constrained Spherical Deconvolution Methods to Analyze the Dentatorubro Thalamic Tract

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1526 A General Learning-based Framework to Characterize Intrinsic Connectivity Strength in Brain Networks

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1529 Functional Multi-Way Connectivity between Networks and Voxels

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1532 Task-based Approach for Classification in Schizophrenia

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1539 Reproducible Networks Hubs of the Human Brain Using Meta-Connectomic Analysis of 5212 Subjects

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1543 Functionally connected networks based on high lesion probability seed from traumatic brain Injury

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1549 Improved cognitive flexibility after glioma surgery is related to functional connectivity changes.

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1564 Effects of acute exercise on resting state functional connectivity in young and older adults

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1568 Systemic Physiological Noise Might Falsely Boost NIRS RSFC Test-retest Reliability

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1576 Identifying Functional Brain Connections Predicting Mind-Wandering in the Aging Brain

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1579 Hyperconnectivity in Motor and Salience Regions in Neuropathic Pain After Spinal Cord Injury
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1583 Seed-Based Functional Connectivity Analysis for EEG Resting State Realistic Simulations
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1585 Resting-state fMRI and MEG connectivity show similar pattern of modulations with behavioral changes
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1586 Characterizing Network Resilience in Alzheimer's Disease
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1601 Genes driving correlated gene expression in the default mode network
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1602* Investigation of spatiotemporal functional interactivity among large-scale brain networks
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1603 A human brain circuit for lesion induced epilepsy
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1608 Functional connectivity contrast across cortical hierarchy marks daily mood state
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1624 Dynamic Changes in the Core-Periphery Organisation of Functional Brain Networks of Concept Learning
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1625* Global signal topography changes across the lifespan
Jason Nomi[1], Danilo Bzdok[2], Jingwei Li[3], Taylor Bolt[4], Salome Kornfeld[5], Zachary Goodman[4], B.T. Thomas Yeo[6], R. Nathan Spreng[7], Lucina Uddin[8]
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1630 Increased interhemispheric motor connectivity in children with ADHD:Association with mirror overflow
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1645 ICA-based Denoising Improves Correlation of Functional Connectivity with Neural Tracers
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1646 Networks behind hippocampal subfields detected by morphological covariance analysis
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1654 Evolutionary Tradeoffs in the Functional and Structural Organization of the Brain
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1657 Modulation of drug- and food-related functional connectivity
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1665 Exploring the topography of structure-function mappings across cortico-thalamic systems.
Amber Howell[1], Shaun Warrington[2], Jie Lisa Ji[1], Antonija Kolobaric[1], Brendan Adkinson[1], Clara Fonteneau[1], Stamatios Sotiropoulos[3], John Murray[1], Alan Anticevic[4]
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1684 Sustained Connectivity Predicts Executive Functioning in Alzheimer's Disease
Jace King[1], Jeffrey Anderson[1], Sariah Porter[1], Kayla Suhrie[1], Ava Dixon[1], Dustin Hammers[1], Kevin Duff[1], John Hoffman[1]
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1694* **A multi-analysis approach to task-modulated functional connectivity in autism**
Carolin Moessnang[1], Alberto Llera[2], Roselyne Chauvin[2], Tristan Looden[2], Dorothea Floris[2], Sarah Baumeister[3], Julian Tillmann[4], Tony Charman[4], Simon Baron-Cohen[5], Sarah Durston[6], Eva Loth[7], Declan Murphy[4], Heike Tost[1], Andreas Meyer-Lindenberg[1], Jan Buitelaar[8], Christian Beckmann[2]
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1703 **Comparison of Network Architecture in Clinically Distinct Subgroups of Children with Mild TBI**
Sonja Stojanovski[1], Guido Guberman Diaz[2], Jean-Christophe Houde[3], Maxime Descoteaux[4], Anne Wheeler[5]
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1704 **Causal modeling of task information flow with high spatiotemporal precision in source EEG networks**
Ravi Mill[1], Julia Hamilton[1], Emily Winfield[1], Nicole Lalta[1], Richard Chen[1], Marjolein Spronk[1], Michael Cole[1]
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1709 **Disrupted Functional and Structural Connectivity and Clinical Implication in Temporal Lobe Epilepsy**
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1718 **Network communication models improve structure-function coupling and prediction of human behavior**
Caio Seguin[1], Andrew Zalesky[2]
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1722 **Predicting Brain Age Using Functional Network Connectivity: A Deep Neural Network Method**
Mohammad Sendi[1,2,3], Jeffrey Jacob[1], Alice Zhang[1], Ji Chun[1], Elaheh Zendehrouh[4], Zening Fu[4,3], Rogers Silva[4,3], Elizabeth Elizabeth Mormino[5], David Salat[6,7], Babak Mahmoudi[2,1], Vince D. Calhoun[3,4,1,2]
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1729 **Triple-network connectivity differences in youth with autism compared to early-onset psychosis**
Aarti Nair[1], Rhideeta Jalal[1], Katherine Lawrence[2], Jiwon Jung[1], Mary Rshtouni[1], Katherine Karlsgodt[1], Mirella Dapretto[2], Carrie Bearden[1]
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1731 **Functional Connectivity of Resting State Networks is Affected by Excess Environmental Stimuli**
Zachary Fernandez[1], Joshua Baker[1], Norman Scheel[1], David Zhu[1]
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1738 **Independent and combined effects of chronic cannabis use and HIV on insular functional connectivity**
Michael Riedel[1], Jessica Flannery[1], Angela Laird[1], Raul Gonzalez[1], Matthew Sutherland[1]
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1739 **Functional Network Connectivity of High-Frequency Resting-State Components**
Thomas DeRamus[1], Ashkan Faghiri[2], Oktay Agcaoglu[3], Eswar Damaraju[4], Victor Vergara[5], Rogers Silva[5], Julia Stephen[6], Tony Wilson[7], Yu-Ping Wang[8], Vince D. Calhoun[4]
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1742 **Multi-echo fMRI and Localization Method Affect Functional Estimates of the Locus Coeruleus**
Hamid Turker[1], Elizabeth Riley[1], Wen-Ming Luh[2], Stan Colcombe[3], Khena Swallow[1]
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1751 **Robustness of structural network metrics across parcellations: between health and disease**
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1753 **Directed activity flow: Directed connectivity improves causal interpretation of predictive models**
Ruben Sanchez-Romero[1], Takuya Ito[1], Ravi Mill[1], Carrisa Cocuzza[1], Richard Chen[1], Michael W. Cole[1]
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Diffusion MRI Modeling and Analysis

0997 **Quantitative Analysis of the Sensitivity of Probabilistic Tractography to Seed Placement**
Jian Lin[1], Ken Sakaie[1], Stephen Jones[1], Katherine Koenig[1], Mark Lowe[1]
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1009 **White matter microstructural differences in young children carrying a 16p11.2 deletion**
David Romascano[1], Julio Villalon-Reina[2], Clara Moreau[3], Borja Rodriguez-Herreros[1], Paola Suarez[1], Joana Osorío[1], Vincent Junod[1], Sonia Richetin[1], Marine Jequier-Gygax[1], Sébastien Jacquemont[3,4], Nadia Chabane[1], Anne Maillard[1]
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1011 **Structural connectivity manifolds in the human temporal lobe**
Reinder Vos de Wael[1], Oualid Benkarim[1], Raul Cruces[1], Casey Paquola[1], Boris Bernhardt[1]
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1033 **NODDI can differentiate microstructural changes due to inflammation and tissue destruction in humans**
Prasanna Parvathaneni[1], Matthew Schindler[2,1], Hadar Kolb[1], Erin Beck[1], Gina Norato[1], Gulbu Uzel[3], Daniel Reich[1], Govind Nair[1]
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1034 Hybrid Surface-Volume Segmentation for improved Anatomically-Constrained Tractography
Robert Smith[1,2], Antonin Skoch[3,4], Claude Bajada[5,6], Svenja Caspers[6,7], Alan Connelly[1,2]
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1036 Expression quantitative trait loci-derived scores and white matter microstructure in UK Biobank
Miruna Barbu[1], Athina Spiliopoulou[1], Marco Colombo[1], Paul McKeigue[1], Toni Clarke[1], David Howard[2], Mark Adams[1], Xueyi Shen[1], Stephen Lawrie[1], Andrew McIntosh[1], Heather Whalley[1]
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1050 Non-Negative Decomposition of Structural Connectivity in the Developing Brain
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1066 Multi-compartment modelling of diffusion MRI signal shows TE-based volume fraction bias
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1101 Optimization of Diffusion Imaging at 10.5T in Nonhuman Primates
Mark Grier[1], Jan Zimmermann[1], Steen Moeller[1], Essa Yacoub[1], Gregor Adriany[1], Russell Lagore[1], Noam Harel[1], Ru-Yuan Zhang[1], Christophe Lenglet[1], Kamil Ugurbil[1], Sarah Heilbronner[1]
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1108 Multivariate Quantification of Brain Development During the First Two Years of Life
Khoi Huynh[1,2], Ye Wu[1], Kim-Han Thung[1], Sahar Ahmad[1], Hoyt Taylor[1], Weili Lin[1,2], Pew-Thian Yap[1,2], the UNC/UMN Baby Connectome Project Consortium[1]
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1144 What underlies differences in fractional anisotropy in aging? The role of complex fibre architecture
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1145 Cortical diffusivity: A distinct and sensitive marker of adult aging
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1167 Quantifying Differences in White Matter within Multiple Sclerosis Women using Machine Learning
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1200 Single Subject Based Analysis of Learning Induced DTI Changes
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1208 Structural connectivity changes in thalamus related network in patients with functional constipation
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1328 Connectomic Analysis of SNc and VTA Projections to the Striatum and Cortex
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1333 Diffusion MRI Reveals Heterogeneous Lifespan Trajectories Across the Hippocampus Head, Body and Tail
Kevin Solar[1], Sarah Treit[1], Emily Stolz[1], Christian Beaulieu[1]
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1344 A machine-learning method for the clinical study of the white matter fascicles in epileptic patients
Elise Roger[1], Félix Renard[2], Sonja Banjac[3], Cédric Pichat[4], Arnaud Attyé[5], Monica Baciu[6]
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1359 Effect of free water correction in grey and white matter in cART treated HIV patients
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1368 Exploring ComBat For Multi-site Diffusion Magnetic Resonance Imaging Data Harmonization
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1387 Relating Shortest Path, Greedy Routing, and Diffusion Theories of DTI Networks to FMRI Activation
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1406 Stick Stippling for Direct 3D Visualization of Diffusion MRI Fiber Orientations and Density
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1410 White Matter Tract Abnormalities in Sport-Related Concussion: An Image Based Meta-Analysis
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1439 THC exposure and differential microstructure of the cerebral cortex and amygdala in young adults
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1444 Non-invasive quantification of inflammation, axonal and myelin injury in MS using DBSI
Simona Schiavi[1,2], Maria Petracca[1], Peng Sun[3], Lazar Fleysher[4], Sirio Cocozza[1,5], Mohamed Mounir El Mendili[1], James Babb[6], Kornelius Podranski[1], Sheng-Kwei Song[3,7,8,9], Matilde Inglese[1,4,10,2]
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1445 Cerebello-thalamo-cortical tract profiles after thalamotomy in patients with disabling tremors.
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1450 Associations of symptom improvement with white matter microstructure in ADHD
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1477 Cluster-based analysis of diffusion MRI tractography measures in Huntington's disease
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1485 3D-printed phantom for diffusion MRI model validation
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1497 Microstructural changes in the penumbra of cerebral small vessel disease lesions
Kirstin Walker[1], Joel Ramirez[1], Hassan Akhavein[1], Melissa Holmes[1], Christopher Scott[1], Seyyed Haddad[2], Paula McLaughlin[3], Brian Levine[4], Donna Kwan[5], Manuel Montero-Odasso[6], Anthony Lang[7], Maria Carmela Tartaglia[8], Jennifer Mandzia[6], Bradley MacIntosh[1], Morris Freedman[4], Stephen Strother[9], Mario Masellis[10], Sean Symons[10], Robert Bartha[9], Richard Swartz[10], Sandra Black[1]
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1510 Isotropic diffusion MRI at high b-values reveals cerebellar changes in movement-disorder patients
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1528 High-resolution ex-vivo structural brainstem connectivity estimated via a conductance model
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1559* QSIPrep: A robust and unified workflow for preprocessing and reconstructing diffusion MRI
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1571 Development of White Matter Structural Covariance Networks in Youth
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1593 Interconnected Effects of In-Scanner Head Motion and ADHD Diagnosis on White Matter Integrity
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1623 Combining Dense Prediction and Semi-Supervised Learning for Arterial Segmentation
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1636 An Open Framework for Producing and Analyzing Diffusion MRI Phantoms
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1652 Altered structural brain controllability in patients with psychosis
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1660 A novel unsupervised deep learning based diffusion imaging marker of tumor extent
Zahra RiahiSamani[1], Jacob Antony Alappatt[1], Drew Parker[1], Abdol Aziz Ould Ismail[1], Ragini Verma[1]
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1663 On the predictive power of tractography for the cortical connectivity of the macaque brain
Gabriel Girard[1,2], Roberto Caminiti[3], Alexandra Battaglia-Mayer[4], Etienne St-Onge[5], Karen Ambrosen[6,7], Simon Eskildsen[8], Kristine Krug[9,10,11], Tim Dyrby[7,6], Maxime Descoteaux[5], Jean-Philippe Thiran[2,1], Giorgio Innocenti[12,13,2]
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1664 Preterm Brain Network Efficiency Correlates with Early Motor Development and Diseases of Prematurity
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1671 Surface integration for improved coverage in structural connectivity analysis
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1741 Finding critical language connections with multiple tractography algorithms: A new analytic approach
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1757 Optimization of NODDI subcortical intrinsic parallel diffusivity across development
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EEG/MEG Modeling and Analysis

1027 Electromagnetic Brain Imaging using Sparse Bayesian Learning – Noise Learning and Model Selection
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1076 Reduction of Information Spreading in MEG Source Estimation Using a Structured Model
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1135 Effects of Gamification on Brain-Computer Interface Training.
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1136 Faded critical dynamics in adult moyamoya disease and its different phenotypes
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1152 EEG forward problem, global sensitivity to tissue conductivities
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1160 Investigation of brain response during visual stimulation from intracranial EEG data
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1187 Identifying individuals from resting-state MEG
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1195 Noise learning in empirical Bayesian source reconstruction for electromagnetic brain imaging
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1213 Extracting class- and trial- specific discriminative EEG activity using deep neural networks
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1254 What goes around comes around: Decoding Feedback Representations in Ventral Visual Pathway
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1299 Connectome harmonics track EEG network dynamics on a subsecond time scale
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1322 A STATIS approach to linking brain and behaviour during naturalistic music listening
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1386 Differences in Unimodal Sensory Processing vs. Cross-Sensory Processing via Time-Frequency Analysis
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1390 In-phase tACS modulates neural activity, but does not improve response inhibition in older adults
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1421 Characterizing Spectral Dynamics during Seizure Onset and Propagation from intracranial EEG Signals
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1423 The Development of Predictive Coding in Young Children: A Magnetoencephalography Study
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1424* Incorporating quantitative EEG analysis into the MNI Open Science neuroinformatics ecosystem
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1429 Dynamic Brain Network Based on EEG Microstate During Sensory Gating in Schizophrenia
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1443 Assessment of Magnetoencephalography Source Estimation Algorithms
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1448 Spontaneous EEG dynamics form transient states of simultaneity establishing large-scale networks
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1456 EEG Spectral Disparity of Breath Awareness and Body Scan among Novice Mindfulness Practitioners
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1468 Quantifying cycle-specific oscillatory waveform shapes
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1479 Alpha peak frequency changes along spatial gradients in oscillatory brain networks.
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1489 Probability to Detect an N2pc ERP Component in Individual EEG Datasets
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1493 Modeling neurophysiological brain activity for individual subjects
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1495 Pursuing an alternative to ICA for improved removal of non-stationary contamination in EEG data
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1503 Automatic Quality Control of Electroencephalographic (EEG) Lead Field for big datasets
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1516 Spatiotemporal dynamics of motor-cognitive performance measured by EEG
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1540 Using both the Amplitude and the Slope Increases the Power of Cluster Mass Tests in MEG/EEG
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1542 Computational platform to study distributed delays in Neural Mass Models
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1548 MRI-DWI-MEEG pipeline for individualized insilico BigBrain like preparation
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1551 Spatially resolved time-frequency framework for the estimation of brain connectivity
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1578 Brain Synchrony Yields Insights Previously Undetectable By Traditional Methods in MZ and DZ Twins
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1595 Fast oscillations localize the epileptogenic zone: a high-density EEG source imaging study
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1605 Mood Disorder Differences in Striatal to Anterior Cingulate Connectivity Measured with MEG
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1609 Predictive regression modeling with MEG/EEG: from source power to signals and cognitive states
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1627 Functional Connectivity Visualization with Virtual White Matter Fibers in Brainstorm
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1661 EEG-fMRI analysis of epileptic discharges guided by clustering of electrical source imaging.
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1689 A Minimal model of brain activity based on graph Laplacian eigenmodes
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1692 Using Structural Connectivity to Reconstruct Brain Activation and Effective Connectivity
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1693 A Comparison of Dissimilarity Measures for Representational Similarity-based Fusion of fMRI and MEG
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1711 Lag-dependent correlations between resting-state fMRI and EEG show distinct spatial patterns
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1714 Patterns in Structural and Functional Connectivity Measures in Autism During Executive Attention
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1756 Altered functional connectivity during balance perturbation task in Traumatic Brain Injury patients
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1762 Probing The Spatiotemporal Characteristics of Brain's Task-Discriminating Functional Networks
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1764 Changes in Brain Connectivity Induced by Gamma-Band Visual Stimulation
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Exploratory Modeling and Artifact Removal

1117 Transient Increases in Heart Rate during Resting-State fMRI and their Association to Peaks in DVARS
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1128 A novel digital reference object for DCE-MRI measurement of subtle blood-brain barrier leakage
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1141 Modelling effects of impaired neurovascular coupling on BOLD-based functional connectivity at rest
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1172 Resting-state fMRI noise regression in multi-site aging studies
Norman Scheel[1], Jeffrey Keller[2], Ellen Binder[3], Eric Vidoni[4], Jeffrey Burns[4], Binu Thomas[5], Diana Kerwin[6], Wanpen Vongpatanasin[5], Munro Cullum[5], Rong Zhang[5], David Zhu[1]
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1250 Generative Adversarial Networks to Model Scanner Noise for Improving Multi-Site Data Harmonization
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1490 PaLOS index: a metric to detect removal of brain signals with artifact correction
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1513 Effects of resting-state fMRI denoising strategies on connectopic maps in single subjects
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1522 A federated denoising autoencoder for brain mri denoising
Sebastian Niehaus[1], Alberto Merola[1], Janis Reinelt[1]
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1552 Simulation of spatially dependent physiological noise in BOLD fMRI data
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1581 Towards site-to-site harmonization of T1-weighted MRI
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1607 How does preprocessing impact recovery of individual information in early childhood fc-fMRI?
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1706 FMRI Dynamic Phantom for Improved Detection of Resting-State Brain Networks
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1730 ENIGMA-GAD: Comparison of a classical method with ComBat to address scanner variability
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fMRI Connectivity and Network Modeling

0996 Improved fingerprinting using edge-centric functional connectivity
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1000 Physiological and Motion Signatures in Functional Connectivity and their Subject Discriminability
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1001 Graph Theory Analysis of Chronic Pain Patients Pre and Post Acceptance and Commitment Therapy
Sarah Meier[1], Semra Aytur[1], Kimberly Ray[2], Donald Robin[1]
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1002 Replicating Smith et al's (2015) positive-negative mode linking brain activity and subject measures
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1003 Reproducible neuromarkers of head motion
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1007 Identifying the Eigen-partition of Temporal Functional Brain Networks
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1008 Network-based atrophy modelling in the common epilepsies: a worldwide ENIGMA study
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1029 Functional connectome fingerprinting: Identifying individuals using refined brain connectivity
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1031 Edge functional connectivity reveals overlapping community structure
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1032 Ghost attractors in spontaneous brain activity
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1041 Investigating white matter lesion load, intrinsic functional connectivity, and cognition in aging
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1047 Detecting Change-Points in Covariance of Multivariate Time Series Models for fMRI data
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1054 High-amplitude co-fluctuations in cortical activity drive resting-state functional connectivity
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1056 Sensitivity of functional connectivity measures to motion artifact in resting-state fMRI data
Arun Mahadevan[1], Ursula Tooley[1], Maxwell Bertolero[1], Allyson Mackey[1], Danielle Bassett[1]
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1064 Modeling functional resting-state networks through neural message passing on the human connectome
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1072 Brain hierarchical organization is altered in epileptogenic malformations of cortical development
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1074 Connectivity in ALS – A Pilot Study
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1075 Comparison between gradients and parcellations for functional connectivity prediction of behavior
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1080 Attention and working memory evoke loss of higher-order network structure in OCD
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1084 Spectral dynamic causal modelling in resting-state neuroimaging reveals changes in effective connect
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1087 Improved Behavior Prediction from Brain Functional Connectivity by Correlation Guided Graph Learning
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1088 Hierarchical organization of local temporal dynamics across the human brain
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1096 Variations in functional networks link to depression severity: A dynamic resting-state fMRI study.
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1099 Structural Equation Modelling of Inversion-Recovery-BOLD laminar fMRI
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1106 Functional network community structure in development
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1109 Resting-State Functional Connectivity in Males with a Supernumerary X-Chromosome (47,XXY)
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1113 Brain States with Covarying Activity-Connectivity Underlie the Pathophysiology in Schizophrenia
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1115 Intrinsic Architecture of Global Signal Topography and Its Modulation by Tasks
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1123 Brain functional connectivity patterns for understanding obesity
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1131 Profiling functional connectome idiosyncrasy in typical and atypical development
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1137 Aberrant dynamic brain state transitioning in patients with functional movement disorders
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1140 Efficient network randomization using multiple edge swapping
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1148 Detailed Organization of the Cerebellum Estimated Within the Individual
Aihuiping Xue[1], Ruby Kong[1], Qing Yang[1], Mark Eldaief[2], Peter Angeli[2], Randy Buckner[2], B.T. Thomas Yeo[1]
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1162 Measuring the bias of draining veins and the vasculature on resting state measures of centrality
Julia Huck[1], Anna-Thekla Jäger[2], Audrey Fan[3], Sophia Grahl[2], Uta Schneider[2], Arno Villringer[2,4,5,6], Christine Tardif[7], Pierre-Louis Bazin[8,2], Claudine Gauthier[1,9], Christopher Steele[1,2]
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1165 Connectome Predictive Modeling of Face-Name Associations in Mild Cognitive Impairment
Michelle Karker[1], Scott Peltier[1], Sean Ma[1], Allison Moll[1], Julia Laing[1], Benjamin Hampstead[1]
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1166* **Hierarchical Modelling of Individual- and Population-Level Resting State Networks from Big fMRI Data**
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1173 **Cross-task flexibility of human cerebral cortex**
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1178 **Is resting-state fMRI worth doing? Re-examining the speech and language network with rs-fMRI**
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1181 **Attractor dysfunction in fMRI dynamic connectivity related to nicotine abuse**
Victor Vergara[1], Vince Calhoun[2]
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1182 **The edge-centric representation of functional brain networks**
Joshua Faskowitz[1], Youngheun Jo[1], Farnaz Zamani Esfahlani[1], Olaf Sporns[1], Richard Betzel[1]
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1190 **Reproducibility of network measures for brain functional connectivity analyses**
Valentina Halasi[1], Alessandra Griffa[2,3,4], Priska Zuber[5], Laura Gaetano[6], Anna Altermatt[1,7], Emanuel Geiter[1,8], Charidimos Tsagkas[8], Manuel Huerbin[1], Katrin Parmar[9,10,11], Athina Papadopoulou[8], Patric Hagmann[12], Ludwig Kappos[8], Jens Wuerfel[1,7], Till Sprenger[13], Stefano Magon[1,14]
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1194 **Translatable Functional Connectivity Topology as Assessed Through Functional Gradients in Mice.**
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1198 **Translational fMRI detects similar network changes in mice and humans after stroke**
Stefan Blaschke[1,2,3], Lukas Hensel[1,3], Anuka Minassian[2], Susan Vlachakis[1,2], Caroline Tscherpel[1,3], Sabine Vay[1], Monika Rabenstein[1,2], Michael Schroeter[1,2,3], Gereon Fink[1,3], Mathias Hoehn[2,3], Christian Grefkes[1,2,3], Maria Rüger[1,2,3]
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1203 **Estimation of Dynamic Scale-Free Brain Connectivity Network from fMRI Time Series**
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1205 **Functional Connectivity Differences among Different Sleep Stages in White Matter**
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1206 **Neural Mechanism of the Emotional and Cognitive Interference Processing in Test-anxious Individuals**
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1209 **The relationship between the ACC-DLPFC connectivity and test anxiety: A resting-state fMRI study**
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1212 **Impulsivity and Thought Suppression in EIU: Associated Neural Network and Genotype**
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1219 **Abnormal Functional Connectivity of Ventral Anterior Insula in Military Veterans with Chronic Pain**
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1221 **Presurgical brain mapping of the language network in pediatric patients with epilepsy**
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1226 **Controllability of noise diffusion relates structure to function in the human connectome**
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1227 **Representational Learning of Resting State Functional MRI for Individual Identification**
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1241 Association Between Adolescent Resting-State Connectivity and the Internalizing Symptom Dimension
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1244 Across subject covariance of pairwise changes in individualized functional network sizes
Wei Dai[1], Mehraveh Salehi[1], R Todd Constable[1], Dustin Scheinost[1]
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1253 Rapid precision functional mapping of individuals using multi-echo fMRI
Charles Lynch[1], Jonathan Power[1], Marc Dubin[1], Faith Gunning[1], Conor Liston[1]
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1255 CO2 Fluctuation in resting-state fMRI: Generating End-tidal CO2 from Respiration using Deep Learning
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1259 Assessment of Site-to-Site Constant Differences in Resting-State Functional Connectomes
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1264 Inference of multiple functional brain networks using Graph Laplacian Mixture Model
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1269 Statelets: A novel approach to capture transient evolution of dynamic states
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1271 Large-scale biophysically-plausible circuit modeling of time-varying functional connectivity
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1276 Functional Neural Networks in Writer's Cramp as Determined by Graph-Theoretical Analysis
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1289 A combined RS-EEG/RS-fMRI characterization of the Alzheimer continuum: a longitudinal study
Camilla Cividini[1,2], Federica Agosta[1,2], Giordano Cecchetti[1], Silvia Basaia[1], Marco Cursi[1], Roberto Santangelo[1], Francesca Caso[1], Fabio Minicucci[1], Giuseppe Magnani[1], Massimo Filippi[1,2]
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1292 Optimising network modelling methods for fMRI
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1293 Stepwise connectivity reveals the spreading of pathology in Parkinson's disease
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1316 Joint Embedding: A scalable framework for aligning and comparing individuals in a connectivity space
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1332 Investigating hippocampal-cortical functional connectivity using static and dynamic measures
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1346 Personalized Circuit Modeling Captures Individual Variation in Functional Dynamics of Human Cortex
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1356 Dynamic functional connectivity during a cannabis cue-reactivity video in heavy cannabis users
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1358 Individually unique functional organization in human frontoparietal cortex
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1365 The contribution of physiologic fluctuation to dynamic switching large scale brain network
Wanyong Shin[1], Mark Lowe[1]
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1367* Signal routing via cortical hierarchies
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1370 Default brain networks of individual humans exhibit fine-grained subnetwork structure
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1374 Aberrant Functional Connectivity Across Brain Networks in Temporal Lobe Epilepsy
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1375 Hierarchical Network Models for Population Studies of Functional Connectivity
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1388 Multiscale neighborhoods in brain networks
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1393 Over-Integration of the Brain Reward System with the Visual Cortex as a Biomarker for Relapse in AUD
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1397* Cognitive information differentiates between connectivity and activity across the cortical hierarchy
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1412 Pre-operative epileptic network architecture constrains surgery-induced connectome reorganization
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1427 An Integration of Edge-centric Functional Network Approaches with Whole-brain Predictive Modeling
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1435 ALE and the problem of identifying subject-specific networks: Graph theoretic characterization
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1437 Variation in the strength of cortical areal boundaries relates to human cognition
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1442 Bipartite connectivity mapping (BCM)
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1446* Whole-brain estimation of directed connectivity from fMRI data
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1453 Informing intrinsic effective connectivity during task fMRI using resting state DCM estimates
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1459 Resting State fMRI Based Multilayer Network Configuration in Patients with Schizophrenia
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1460 Predicting selective manipulation of specific functional connections using local brain stimulation
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1466 Linear Mapping of Cortico-Cortico Resting-State Functional Connectivity
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1470 A functional localizer for large-scale brain network interaction
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1498* Does global signal regression remove alpha power fluctuations? An EEG-fMRI study in humans at rest
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1514 Seed-based resting state fMRI data analysis pipeline by using unsupervised machine learning
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1524 Dynamic (bi)connectedness unravel differences in brain chronnectome due to Alzheimer's Disease
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1533 Delayed energy transport in fMRI peripheral subnetworks is linked to Autism severity
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1535* Topological variations in connectivity dynamics decode states of the brain
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1537 Ketamine-induced anxious ego-dissolution correlates with FC reduction between PCC and insula
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1538 The arousal system mediates age-related decline in functional segregation of cortical networks
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1546 Intrinsic Versus Tasked–Evoked Network Architecture of Thalamocortical Functional Connectivity
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1547 Dynamic Network Analysis of Deep Brain Stimulation fMRI in Parkinson Patients
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1550 Default Mode Network Alterations in Cerebral Small Vessel Disease: evidence from CADASIL
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1556 Observation & Synthesis of Divergent Patterns of Maturation Across Scales of Functional Networks
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1560 Reliability of resting state connectivity networks in individuals with elevated depression severity
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1572 Graph Based Functional Network Analysis in Focal Epilepsy Patients with Respect to Seizure Outcomes
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1591 Lower amplitude BOLD signal peaks drive resting-state functional connectivity
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1594 Analyzing complexity in BOLD rs-fMRI at rest and task states using sample entropy
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1596 Disconnected SMA and midcingulate in Functional movement disorders: a resting state fMRI study.
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1604 Measurement of functional brain network connectivity in people with orthostatic tremor
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1611 Independent Component Analysis of rs-fMRI to Predict Surgical Outcome in Temporal Lobe Epilepsy
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1612 Developmental delay in the use of shared functional processes in the ADHD brain
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1614 Effects of Functional Connectivity on ADHD Relevant Traits in Normal Developmental Cohort
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1629 Increased Connectivity Between Limbic and Motor System After Five Bouts of Exercise with Motor Task
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1632 An updated and extended atlas for corresponding brain activation during task and rest
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1638 Reproducibility of Resting-State fMRI over Five Years: a Single-Subject Study
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1641 Reliability of Brain Network Organization Across Scans, Sessions, Samples, and Methods
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1644 Graph Theory Analysis on Resting State MRI to Elucidate Network Connectivity in Response to DBS
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1651 Functional Connectivity and Interregional BOLD Signal Variance across Large-scale Networks
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1653 Molecular Genetics of Small-World Brain Networks
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1656 Brain-behaviour associations of children with typical development and autism spectrum disorder
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1667 Aberrant Limbic-Executive rather than Default Mode-Salience System in Major Depressive Disorder
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1672 Cognitive state and cathecolaminergic system modulates cortical information processing dynamics
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1673 Personalized In-silico Approach for Resting-State Functional Connectivity in Focal Epilepsy Patients
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1674* The brainlife.io cloud-services for functional network neuroscience
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1681 Candidate TMS targets evaluated with biophysical field modelling and functional connectivity mapping
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1683* Consistent global propagations across cortical hierarchy in the electrophysiological and fMRI signal
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1685 Relationship between functional connectivity and glucose metabolic rate assessed using PET/MRI
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1687 Activation and brain network profiles during refractory periods of learning in schizophrenia
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1688 Neural Correlates of Stress & Resilience in Family Dementia Caregivers.
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1695 Dynamic Resting State Functional Connectivity Analysis using the Network Diffusion Model
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1696 Familial Environment Predicts Variations in Induced Functional Connectivity to Contextual Valence.
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1697 Three valued energy landscape analysis on a continuous multitask fMRI paradigm
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1699 Mitigating effects of temporal filter of time-series for reliability of connectome calculations
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1710 Innovative Long Short-Term Memory Architecture for Interpreting Dynamic Connectivity
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1715 Dynamic network coupling associated with effort and fatigue in Traumatic Brain Injury
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1716 Comparison of dynamic functional connectivity methods for characterizing brain alterations
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1717 Intelligence and academic performance: Is it all in your head?
Katherine Bottenhorn[1], Jessica Bartley[1], Michael Riedel[1], Taylor Salo[1], Elsa Bravo[1], Rosalie Odean[1], Alina Nazareth[2], Robert Laird[1], Shannon Pruden[1], Matthew Sutherland[1], Eric Brewe[3], Angela Laird[1]
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1719 Functional Connectivity Accounts for Variability in Temporal Discounting Across Diagnostic Groups
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1720 Modularity allows classification of human brain networks during music and speech perception
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1721 Towards a large-scale comparative analysis of dynamic functional connectivity methods
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1726 Connectome-based neurofeedback
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1732 Comparing Reliabilities Across Functional Connectivity Metrics
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1734* Enhancing Task fMRI Preprocessing via Whole-Brain Neural Modeling of Intrinsic Activity Dynamics
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1735 Subgroup Analysis of Young Healthy Adults with Resting State Functional Connectivity
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1743 Temporal memory of resting-state fMRI time series activations are able to classify multiple sclerosi
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1747 Influence of vestibular arousal on higher-order functional networks
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1759 ME-fMRI connectivity associations with behavior using group and individualized parcellation schemes
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1760 Functional network classification of obesity using Graph U-net in fMRI
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1763 Difference in nucleus accumbens related functional connectivity across various psychiatric disorders
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1765 Building Mesoscale Individualized Neurodynamic Models (MINDy) at High Spatial Resolution
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1767 Capturing Dysconnectivity in Schizophrenia Using Resting-state Functional Magnetic Resonance Imaging
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Image Registration and Computational Anatomy

1042 Finding Your Center: methods for better representative coordinates in AFNI, MRIcroGL & Surfice
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1077 Cortical thickness validation using a thickness phantom
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1176 RBSN: Region-based Diffeomorphic Spatial Normalization via Landmark Matching
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1228 Non-linear registration of 1µm Histology Sections into 3D 20µm BigBrain Space
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1239 FODF-based vs. tensor-based registration for spatial matching of fODFs and brain structure
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1247 T1w and DTI spatial normalization in older adults: Multi-channel or Single-channel registration?
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1261 Improving the Speed of Surface Registrations
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1266 An Animal Pipeline for FMRI in AFNI – @animal_warper and afni_proc.py
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1270* TIRL: Automated Non-Linear Registration of Stand-Alone Histological Sections to Whole-Brain MRI
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1281 Correlation of gait disturbance and cortical thickness for idiopathic normal-pressure hydrocephalus
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1320 Voxel Size, Shape, and Uncertainty in Volumetric Segmentation
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1353 Impact of commonly used acquisition sequences on automated hippocampal subfield volume estimates
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1404 Quantitative Evaluations of Geometric Distortion Corrections in Surface-Based Analysis of 7T fMRI
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1634 Template registration of spinal cord fMRI data using cerebrospinal fluid segmentation
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1639 Comparison of the motor-hand area morphology in Great Apes
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1707 An automated, geometry-based method for the analysis of hippocampal thickness
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1755 Modification of the CIVET Pipeline for Estimation of Subplate Thickness
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1758 MRI guided sectioning and stitching of brain blocks for alignment of histology to MR images
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Methods Development

0998 Behavioral Dictionary of Generalized Neural Mass Model
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1005 Modeling Random Noise in fMRI with Wishart Distributions: Implications for Functional Connectivity

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1022 Magnetization Transfer Imaging with a Surface Cryogenic Coil

Mila Urosevic[1], Daniel Gallino[1], Gabriel Devenyi[1,2,3], Christine Tardif[4], Marius Tuznik[4], Gabriel Desrosiers-Grégoire[1,5], Mallar Chakravarty[1,2,5,3,6]
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1024 A Joint Causal Network Estimation Framework for fMRI Time Series

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1037 Spatial Confidence Sets for Standardized Effect Size Images

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1045 Hierarchical Nonlinear Embedding of fMRI Time Series Reveals Brain's Dynamic Topological Structure

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1046* Brainiak Education: User-Friendly Tutorials for Advanced, Computationally-Intensive fMRI Analysis

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1048 Graph Neural Network Analysis of Resting-state fMRI

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1051 GANxEEG – Automatic Stimulus Adaptation for ERP Maximisation

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1053 Glial glutamate regulation, critical determinant of whole brain physiology: a computational study

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1058 Optimization study of a new computational model for brain lactate exchanges at rest

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1059 Revealing brain network communities with empirical mode decomposition and k-modes clustering

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1073 Precise spatial normalization to the MNI space using cerebral artery segmentation

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1083 Tedana: Multi-echo software and communal resources

Daniel Handwerker[1], Peter Bandettini[1], Katherine Bottenhorn[2], César Caballero-Gaudes[3], Logan Dowdle[4], Elizabeth Dupre[5], Javier Gonzalez-Castillo[1], Angela Laird[2], John Lee[1], Ross Markello[5], Stefano Moia[3], Taylor Salo[2], Joshua Teves[6], Eneko Uruñuela[3], Maryam Vaziri-Pashkam[1], Kirstie Whitaker[7]
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1100 NeuroQuery: comprehensive meta-analysis of human brain mapping

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1107 Capturing distributed brain effects related to behavior using the Bayesian polyvertex score

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1111* MyPLS 2.0 – Partial least squares analysis for multivariate brain-behavior associations

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1114 Entropy-based interactive exploration of brain dynamics at multiple scales during ongoing cognition

Caleb Geniesse[1], Samir Chowdhury[1], Manish Saggar[1]
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1116 Dynamics of topologically-characterized structures within fMRI signal

Adam Regalski[1], Hassan Abdallah[1], Maria Berishaj[1], Mohammad Kang[1], Vaibhav Diwadkar[1], Andrew Salch[1]
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1120 How to Improve the Functional Alignment of fMRI Data Using Spatial Brain Information?
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1189 Rethinking measures of local shape complexity for neuroimaging applications
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1210 Layer-sensitive fMRI
Gal Hershkovitz[1], Omri Tomer[1], Ittai Shamir[1], Daniel Barazany[1], Yaniv Assaf[1]
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1215 Improved Cortical Surface Reconstruction and Thickness Estimation
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1223 Data-driven event segmentation of brain activity reveals the temporal hierarchy of brain function
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1235 Imputation of Missing Behavioral Measures in Connectome-based Predictive Modeling
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1245 Low Amplitude Random Burst Sensing of Neuromodulators
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1246 Visualizing neuroimaging data from multiple research sites without requiring collocation
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1257 Generative Modeling of Brain maps with Spatial Dependence
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1258 Simultaneous missing data interpolation and slice time correction in rsfMRI using matrix completion
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1267 Spine intervertebral disc labeling using a fully convolutional redundant counting model
Lucas Rouhier[1], Joseph Paul Cohen[2], Francisco Perdigon Romero[3], Julien Cohen-Adad[1,4]
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1268 Novel brain shape asymmetry signatures for subject identification
Yu-Chi Chen[1], Eugene McTavish[1], Chao Suo[1], Alex Fornito[1], Kevin Aquino[1]
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1279* SimNIBS 4.0: Detailed Head Modeling for Transcranial Brain Stimulation and EEG
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1282* VB_toolbox: A tool for investigating neural feature gradients in Python and MATLAB
Claude Bajada[1,2,3], Lucas da Costa Campos[2,4], Svenja Caspers[2,5,6], Richard Muscat[1], Geoff Parker[7,8,9], Matthew Lambon Ralph[10], Lauren Cloutman[3], Nelson Trujillo-Barreto[3]
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1304 Graph diffusion on the structural connectome to identify aligned and liberal fMRI activity
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1324 Validating multi-echo fMRI analysis methods across a range of acquisitions
Ramya Varadarajan[1], Daniel Handwerker[1], Peter Molfese[1], Javier Gonzalez-Castillo[1], Peter Bandettini[1]
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1325 Improving deconvolution of fMRI signal with Sparse Paradigm Free Mapping using stability selection
Eneko Uruñuela[1], Stephen Jones[2], Anna Crawford[2], Wanyong Shin[2], Sehong Oh[2], Mark Lowe[2], Cesar Caballero-Gaudes[1]
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1335 Analyzing fMRI datasets by interpreting the decoding decisions of pre-trained deep learning models
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1340 Confounder: A BIDS app for assessing the influence of experimental confounds in task-based GLM model
Suzanne Witt[1], Kathryne Van Hedger[1], Olivia Walton Stanley[1], Ali Khan[1], Joern Diedrichsen[1]
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1341 Fuzzy: An Ecosystem for Evaluating the Stability of Pipelines Through Monte Carlo Arithmetic
Gregory Kiar[1], Ali Salari[2], Romke Hannema[1], Mayank Vadariya[2], Mathieu Dugre[2], Pierre Rioux[1], Pamela Douglas[3], Shawn Brown[4], Pablo de Oliveira Castro[5], Eric Petit[6], Alan Evans[1], Tristan Glatard[2]
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1342 Discovery of Image-Level Multi-Dimensional Patterns of Population Variability in Brain
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1384 Streamlined Magnetic Resonance Fingerprinting:Whole-brain coverage with deep learning reconstruction
Mahdi Khajehim[1,2], Thomas Christen[3], Fred Tam[4], Simon J . Graham[1,4], J. Jean Chen[1,2]
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1398* OpenNFT: open-source Python/Matlab framework for real-time fMRI neurofeedback and quality assessment
Yury Koush[1]
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1402 Recursive quality assessment and real-time head motion detection of real-time fMRI using OpenNFT
Nikita Davydov[1,2], Evgeny Prilepin[3], Tibor Auer[4], Nicolas Gninenko[5], Alexander Khramov[1,2], Dimitri Van De Ville[6], Artem Nikonorov[1,2], Yury Koush[7]
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1405 Group-Patch Based Classification for Predicting Imbalanced Neuron Spikes
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1411 Brain Structure-Function Relationships via Spectral Factorization and the Transfer Function
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1419 Localizing Uni-directional Neural Pathways by MRI: A Theoretical Exploration
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1420 A multivariate approach to analyze connectivity matrices with individual-specific parcellation
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1425 Spatially focused, dynamic fMRI graph signal processing to unravel novel relationships to behaviour
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1432 In Transient Spectral Peak Analysis Brain Functions Exhibit Distinct Profiles Disrupted by Disease
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1449 1D navigators reduce cervical spinal cord area mis-estimation in multi-echo GRE scans
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1463 The ARIbrain package: Flexible cluster inference of fMRI data with full family-wise error control
Wouter Weeda[1], Xu Chen[1,2], Martha Van Kempen[1], Jonathan Rosenblatt[3], Livio Finos[4], Aldo Solari[5], Jelle Goeman[2]
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1464 A powerful solution with full FWER control to the problem of sequential analyses of open datasets
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1469 A Dual-projection MRI Data Denoising Method Based on ICA and Regression
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1480 Enrichment of data analytics by whole-brain computational models
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1501 Hippocampal Formation Under Resting-State Conditions
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1502 A NPE-mutated method to strengthen outcomes of ICA on both individual and group level fMRI data
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1512 Real-Time pRF Mapping using Gradient Descent on Hashed-Gaussian Tiles
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1525 A Parcellation-Free Framework for Structural and Functional Connectivity Integration
Martin Cole[1], Kyle Murray[1], Étienne St-Onge[2], Maxime Descoteaux[2], Jianhui Zhong[1], Giovanni Schifitto[1], Zhengwu Zhang[1]
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1531 Mixed models improve precision and minimise false positives in vertex-wise analyses of grey-matter
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1534 Bringing spiral sampling efficiency to fMRI: VASO fMRI with SMS spiral read-out
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1536 FastSurfer – A fast and accurate deep learning based neuroimaging pipeline
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1545 Estimation of smoothness and confidence regions for peak location using convolution random fields
Samuel Davenport[1], Armin Schwartzman[2], Fabian Telschow[3], Thomas Nichols[1]
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1555 Characterization of Individual Variability for the Improvement of Reliability
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1557 Inhibitory Response Neurotypes Differ in Cognitive Performance and Default Mode Network Cohesion
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1558 BLMM: Parallelized & Distributed Computing for Big Linear Mixed Models
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1565 Haemodynamic Response Function Learning: a Semi-Blind Multivariate Deconvolution of the fMRI Signal
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1570 Simultaneous vasculature and multi-parametric mapping enables blood T1 measurements
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1580 Group level supervised PCA and denoising of Blood Delay Maps
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1582 Disentangling functional pathways for visual and auditory word processing: RSA analysis of MEG data
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1587 Statistical Pitfalls in Brain Age Analyses
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1588 Valid cluster inference with harmonic mean p-value for neuroimaging data analysis
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1599 Patch-based Tissue Classification in Infant Brain MRI using Two-Stage CNN
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1610 The ARIbrain toolbox: a toolbox for cluster inference of neuroimaging data in SPM
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1616 A Python Tool for Assessing Experimental Timing Efficiency and Sensitivity
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1622 Reinforcement Learning the Heuristics of Hub Identification over Brain Networks
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1635 Unbiased atlas construction for neonates via unsupervised learning
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1643 Vertex-wise mixed modeling using QDECR
Sander Lamballais[1], Mohammad Ikram[1], Meike Vernooij[1], Ryan Muetzel[1]
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1648 Snowball ICA: A Model Order Free Independent Component Analysis Strategy for fMRI data
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1649 Evaluation of the effect of SatPads on spinal cord functional MRI
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1655 Statistical inference from persistent homology of fMRI signals.
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1679 FMRI based predictive eye estimation regression (PEER) in macaques during naturalistic viewing
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1686* Assessing the utilities of resting-state functional gradients as a novel imaging biomarker
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1724 Identifying Differences Between Expert and Novice Meditator Brain Scans via Multiview Embedding
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1728 ANy-way Independent Component Analysis
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1736 Optimal Experimental Design for Big Data: Applications in Brain Imaging
Eric Bridgeford[1], Shangsi Wang[1], Zhi Yang[2], Zeyi Wang[1], Ting Xu[3], Cameron Craddock[3], Jayanta Dey[1], Gregory Kiar[4], William Gray-Roncal[1], Carey Priebe[1], Brian Caffo[1], Michael Milham[3], Xi-Nian Zuo[2,5,6,7], Joshua Vogelstein[1]
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1740 Brain Age Prediction from Structural MRI using Deep Learning & Information-Theoretic Divergence
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1761 3D Tortuosity of the central sulcus; applied to patients with Alzheimer's and control subjects
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1766 Quantifying Normal on Apparent Diffusion Coefficient Maps for Generic Detection of Abnormalities
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Motion Correction and Preprocessing

1127 Deep Convolutional Autoencoder for Reducing Motion Artifacts in Structural Brain MRI Scans
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1159 Comparison of different strategies for regressing motion artifacts from fMRI data
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1169 Test-Retest Reliability of Cortical Thickness and Structure Volume in Volumetric Navigator Sequences
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1243 Motion artifacts of food-cue fMRI in states of hunger and satiety: Impact of age and clinical status
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1339 Removal of low-rank global signals in fMRI improves connectome-based prediction of individual traits
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1351 A Wavelet Noise Reduction Method for Improving Machine Learning Detection of Pediatric Epilepsy
Emmett Kennady[1], Ryan Nguyen[1], Matthew Smyth[2], Liang Zhu[1], Ludovic Pao[1], Shannon Swisher[1], Anish Mitra[3], Rajan Patel[1], Jeremy Lankford[1], Gretchen Von Allmen[1], Michael Watkins[1], Michael Funke[1], Manish Shah[1]
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1369 Motion matters: An analysis of motion bias correction in diffusion MRI
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1395 Artefact Reduction in Simultaneous EEG-fMRI: A systematic review of methods and contemporary usage
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1488 Assessment of fMRI Preprocessing Pipelines using Multiple Quality Control Metrics
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1509 ICA-based denoising strategies in highly motion correlated tasks with Multi Echo BOLD fMRI
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1521 Comparison of cortical thickness and area measures of 3T MPRAGE data at different resolutions
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1527 Improved estimates of BOLD correlation structure through simultaneous spatiotemporal denoising
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1617 The Virtual Brain and focal lesions – advancing processing for longitudinal multi-modal stroke data
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1662 Evaluation of confound regression strategies for denoising in utero resting-state functional MRI
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1676 Comparison of AROMA and FIX in motion correction for multiband pediatric clinical neuroimaging
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1705 A device for detecting head movements in a mock scanner, for screening and training subjects
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1708 Leverage scrubbing: A data-driven PCA-based artifact detection method for fMRI
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1745 Mock MRI training impact on 'scannability' in children with neurodevelopmental disorders
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Multivariate Approaches

1023 Structural and Functional Brain Network Alterations in Major Depressive Disorder from Meta-Analysis
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1044 Convergent univariate and multivariate evidence for task-general fronto-parietal cognitive control
Rongxiang Tang[1], Joset Etzel[1], Alexander Kizhner[1], Michael Freund[1], Todd Braver[2]
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1150 Longitudinal tracking of Alzheimer's disease enabled by multi-modal regression models

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1151 Exploring the stability of canonical correlation analysis between imaging and non-imaging datasets

Shaun Warrington[1], Markus Helmer[2], Jie Lisa Ji[2], Ali-Reza Mohammadi-Nejad[1,3], Alan Anticevic[2], John Murray[2], Stamatios Sotiropoulos[1,3,4]
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1186 Permutation inference for CCA after deconfounding can lead to inflated error rates

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1249 Removal of Scanner Effects in Covariance Improves Multivariate Pattern Analysis in Neuroimaging Data

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1283 What make one's brain unique: how the brain correlate with demographics, environments and cognition

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1290 Quantifying the Uncertainty in Multi-Voxel Pattern Analysis

Jerome-Alexis Chevalier[1], Tuan-Binh Nguyen[1], Gaël Varoquaux[1], Joseph Salmon[2], Bertrand Thirion[1]
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1302 Dissociating semantic processing from executive control are linked to mental time travel

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1303 Interactive visualization of neural network relevance maps for assessing disease patterns in MRI

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1307 On discovery of brain-phenotype relationships: detection, estimation, and prediction

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1314 Translating ENIGMA-Schizophrenia Big Data findings to the Individual: Regional Vulnerability Index

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1355 Predicting Individual Face-selective Topography Using Naturalistic Stimuli

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1371 Canonical correlation analysis of a functional connectivity normative model in ASD.

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1372 Genetic networks related to neural auditory paired stimulus response in psychosis: A B-SNIP study

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1382 Does functional alignment improve inter-subject decoding?

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1458 Analysing linear transformations between pairs of multivariate patterns in fMRI

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1511 Altered BOLD variability development in very preterm-born young adolescents

Lorena Freitas[1], Vanessa Siffredi[1], Maria Chiara Liverani[2], Thomas Bolton[3], Cristina Borradori-Tolsa[2], Russia Ha-Vihn Leuchter[2], Dimitri Van De Ville[3], Petra Hüppi[2]
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1562 Revealing trans-diagnostic patterns of reward system dysfunctions using cluster analysis
Egle Simulionyte[1], Evgeny Gladilin[1], Oliver Gruber[1]
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1573 Optimizing functional topographies of hyperalignment common model space
Ma Feilong[1], James Haxby[1]
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1615 White Matter Integrity Similarity Networks as a Novel Way to Investigate White Matter Microstructure
Tobias Baumeister[1], Jane Wang[1], Martin McKeown[2]
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1647 A hierarchical Bayesian approach to link brain imaging to behaviour in incomplete datasets
Fabio Ferreira[1], Agoston Mihalik[2], John Ashburner[3], Janaina Mourao-Miranda[1]
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1670* BRAPH 2.0: A Graph Theory Software for the Analysis of Multilayer Brain Connectivity
Giovanni Volpe[1], Mite Mijalkov[2], Joana Pereira[3]
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1733 A Joint Analysis of Multi-paradigm fMRI on Cognitive Abilities of Young Adult Females
Yuntong Bai[1], Yun Gong[1], Yunjin Yao[2], Vince D. Calhoun[3], Yu-Ping Wang[1]
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1746 Examining the latent structure of threat reactivity using a structural equation modeling approach
Milena Radoman[1], Fikayo Akinbo[1], Yasmin Pina[1], Stephanie Gorka[1]
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1748 Confounds in predictive models: removing or controlling their effects
Darya Chyzhyk[1], Bertrand Thirion[2], Gael Varoquaux[3]
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1749 Structured Coupled Matrix-Tensor Factorization for HRF Estimation Using Simulated EEG-fMRI Data
Dylan Mann-Krzisnik[1], Georgios Mitsis[2]
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1754 Efficient large-scale Independent Vector Analysis using Self-Referenced IVA (SRIVA)
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PET Modeling and Analysis

1038 Relationship between brain distributions of tau and atrophy to brain regional connectivity
Fatemeh Mohammadi[1], Jean-Paul Soucy[2,3], Pedro Rosa-Neto[4], Tharick A. Pascoal[4], Obaï Bin Ka'b Ali[2,5], Melissa Savard[4], Firoza Z. Lussier[4], Min Su Kang[4], Joseph Therriault[4], Habib Benali[1]
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1049* A High-Resolution In Vivo Atlas of the Human Brain's GABAA Receptor System
Martin Nørgaard[1,2], Vincent Beliveau[3], Melanie Ganz[4,1], Claus Svarer[1], Lars Pinborg[1,2], Sune Keller[5], Peter Jensen[1], Douglas Greve[6], Gitte Knudsen[1,2]
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1175 Estimating PET partial volume full-width-half-maximum directly from human data
Douglas Greve[1], Martin Schain[2], Melanie Ganz[3], Martin Nørgaard[4], Claus Svarer[5], Gitte Knudsen[5]
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1319 Fully Automated Cortical Surface-based PET Pipeline that Provides Personalized Quantification Report
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1713 Estimation of the Centiloid cut-off values for amyloid positivity
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Segmentation and Parcellation

1025 Spinal Cord Tumor Segmentation Using Multimodal Deep Learning Approach
Andréanne Lemay[1], Charley Gros[1], Zhizheng Zhuo[2], Yunyun Duan[2], Jie Zhang[2], Julien Cohen-Adad[1], Yaou Liu[2]
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1057* AxonDeepSeg: Automatic Myelin and Axon Segmentation Using Deep Learning
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1071 Uncertainty estimation of white matter hyperintensity segmentation using a Bayesian 3D UNet

Parisa Mojiri Forooshani[1], Emmanuel Edward Ntiri[1], Melissa Holmes[1], Sabrina Adamo[1], Joel Ramirez[1], Fuqiang Gao[1], Miracle Ozzoude[1], Christopher Scott[1], Dariush Dowlatshahi[2], Jane Lawrence-Dewar[3], Donna Kwan[4], Connie Marras[5], Antony Lang[5], Robert Bartha[6], Stephen Strother[7], Jean-claude Tardif[8], Sean Symon[9], Mario Masellis[10], Rick Swartz[10], Alan Moody[9], Sandar Black[1,10], Maged Goubran[1]
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1082 An Atlas of the Human Hypothalamus at Ultra-High Resolution using the BigBrain

Sherri Lee Jones[1], Claude Lepage[2], Mona Omidyeganeh[2], Paule Toussaint[2], Lindsay Lewis[2], Louis Borgeat[3], Philippe Massicotte[3], Ayça Altinkaya[2], Tuong-Vi Nguyen[4], Abbas Sadikot[5], Alan Evans[6], Jens Pruessner[7]
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1089 Quantification of white matter hyperintensities in a healthy population-based cohort

Niklas Wulms[1], Christine Herpertz[2], Lea Redmann[2], Benedikt Sundermann[3], Klaus Berger[1], Heike Minnerup[1]
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1090 Deep Convolutional Neural Network Approach Improves Hippocampal Segmentations in Stroke Population

Artemis Zavaliangos-Petropul[1], Meral Tubi[1], Elizabeth Haddad[1], Alyssa Zhu[1], Neda Jahanshad[1], Paul Thompson[1], Sook-Lei Liew[1,2]
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1091 New evaluation criterion for functional brain parcellation methods using a multi-domain task battery

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1092 Applying Deep Convolutional Neural Networks for Neonatal Brain Image Segmentation

Yang Ding[1,2], Rolando Acosta[3,2], Vicente Enguix[3,2], Sabrina Suffren[3,2], Janosch Ortmann[4], David Luck[3,2], Jose Dolz[5], Gregory Lodygensky[3,2,6]
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1103 Segmentation of Diffuse White Matter Abnormality in Very Preterm Infants using Deep Learning

Hailong Li[1], Ming Chen[1,2], Jinghua Wang[3], Nehal Parikh[1,4], Lili He[1,4]
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1129 Development of an automated processing pipeline for brain MRI-histology correlations

Daniel Kor[1], Jeroen Mollink[1,2], Istvan Huszar[1], Amy Howard[1], Sean Foxley[3], Menuka Pallebage-Gamarallage[4], Adele Smart[4], Olaf Ansorge[4], Saad Jbabdi[1], Karla Miller[1]
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1158 DeepACSON: automated segmentation of 3D electron microscopy images of white matter

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1177 Combined Automated Hippocampal Segmentation

Nalini Hazra[1], Evan Hare[1], Elizabeth Matsiyevskiy[1], Joshua Liu[1], Deydeep Kothapalli[1], Matthew Hapenney[1], Sid O'Bryant[2], Meredith Braskie[1,3]
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1188 Mapping internal brainstem structures using MP2RAGE at 7T and 3T

Susanne Mueller[1]
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1201 Comparison of multiple sclerosis (MS) lesions segmentation using quantitative or FLAIR MR images

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1222 Cross-species parcellation of the corpus callosum using joint embedding of connectivity blueprints

Hossein Rafipoor[1], Shaun Warrington[2], Katherine Bryant[3], Stamatios Sotiropoulos[4], Michiel Cottaar[5], Rogier Mars[3], Saad Jbabdi[5]
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1232 A Nested U-Net Approach for Brain Tumour Segmentation

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1236 3D Patchwise Tiramisu Net for Segmentation of Sub-millimetre Resolution 7T Brain Images

Marian Schneider[1], Rainer Goebel[1]
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1237 Automatic segmentation of spinal MS lesions: How to generalize across MR contrasts?
Olivier Vincent[1], Charley Gros[1], Joseph Paul Cohen[2], Julien Cohen-Adad[1,3]
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1240 White Matter Changes on T1 versus T2 MRI: Overlap and Comparison of Four Segmentation Algorithms
Elijah Rockers[1], Kelvin Wong[1], Quentin Funk[1], Jon Xue[1], Joseph Masdeu[1], Belen Pascual[1]
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1288 Semantic segmentation of tissues in rat brain MR images using a Deep Learning convolutional network
Ricardo Magalhães[1,2], Mariana Rodrigues[3], David Barrière[4], Ashley Novais[3], Fawzi Boumezbeur[5], Thérèse Jay[6], Sébastien Mériaux[4], Nuno Sousa[7], Victor Alves[8]
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1301 Fast brain segmentation of out-of-the-scanner MR 7T volumes using deep learning
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1305 Mapping of the human cerebral cortex using mRNA expression patterns
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1306 Hippocampal subfield volume estimations utilizing multispectral MR information within FreeSurfer
Rene Seiger[1], Fabian Hammerle[1], Godber Godbersen[1], Murray Reed[1], Paul Michenthaler[1], Benjamin Spurny[1], Patricia Handschuh[1], Manfred Kloebl[1], Jakob Unterholzner[1], Alim Basaran[1], Alexander Kautzky[1], Gregor Gryglewski[1], Christoph Kraus[1], Thomas Vanicek[1], Rupert Lanzenberger[1]
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1326 Automated hippocampal unfolding for quantitative mapping, morphometry, and subfield definition
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1331 Modeling Longitudinal Change in Brain Volumes: Manual and Automated Methods Compared
Andrew Bender[1], Nicole Jess[1], Dhaval Gandhi[1], Jamie Satow[1], Peng Yuan[2], Naftali Raz[3]
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1336 Effects of early surgical menopause on sleep, memory, and medial temporal lobe structure at midlife
Nicole Gervais[1], Claire Lauzon[1], Gina Nicoll[1], Elizabeth Baker-Sullivan[1], Alana Brown[2], Laura Gravelsins[2], Anne Almey[1], Rebekah Reuben[2], Annie Duchesne[3], Leanne Mendoza[1], Cheryl Grady[4], Rosanna Olsen[4], Gillian Einstein[5]
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1354 Automatic Detection of Brain MRI Segmentation Errors Using Generative Adversarial Networks
Irene Brusini[1,2], Örjan Smedby[1], Eric Westman[2], Chunliang Wang[1]
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1409 Movie fMRI reveals reproducible and subject-specific dynamic states of brain parcellation
Amal Boukhdhir[1], Yu Zhang[1], Max Mignotte[2], Julie Boyle[3], Basile Pinsard[4], Pierre Bellec[5]
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1451 Neonatal functional brain atlases using a two-level group-wise functional parcellation framework
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1471 Connectivity-based parcellation discloses the topographical organization of the globus pallidus
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1492* Macapype: An open multi-software framework for non-human primate anatomical MRI processing
Bastien Cagna[1], David Meunier[2], Kep Kee Loh[2], Régis Trapeau[2], Julien Sein[3], Sylvain Takerkart[4], Olivier Coulon[5], Pascal Belin[6]
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1499 S-ADU-net: Spatial-guided Attention Dense U-net for 6-month infant brain segmentation
Zilong Zeng[1,2,3], Tengda Zhao[1,2,3], Yong He[1,2,3]
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1500 Relationship between Clinical Parameters and Corpus Callosum Volume in Multiple Sclerosis
Anna Christiany Brandão Nascimento[1], Ana Carolina Araujo[1], Nathalie Meneguette[1], Marcos Alvarenga[1], Hélcio Alvarenga Filho[1], Cleonice Alves de Melo Bento[1], Claudia Cristina Ferreira Vasconcelos[1], Daniel Magalhães Baldini[1], Patricia Piazza Rafful[2], Paulo Roberto Valle Bahia[2], Sérgio Luís Schmidt[1], Mariana Penteado Nucci[3], Carolina Rimkus[3], Lara Alexandre Brandão[4], Nadja Emidio Correa Araujo[1], Monica Oliveira Bernardo[5], Marcell Pourbaix Morrison[1], Carla Regina Marchon[6], Claudia da Costa Leite[7], Regina Maria Papais-Alvarenga[8]
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1507 A sub+cortical fMRI-based surface parcellation
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1574* WikiBS: a public wiki for segmenting high resolution brainstem images
François Lechanoine[1], Timothée Jacqueson[2], Barthélemy Serres[3], Mohammad Mohammadi[4], Justine Beaujoin[5], Frédéric Andersson[4], Fabrice Poupon[5], Cyril Poupon[5], Christophe Destrieux[4]
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1600 Piriform Cortex Parcellation through Unfolding and Clustering of Laminar Features in the 3D BigBrain
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1613 Enriching the Human Connectome: von Economo atlas integrated into BigBrain & The Virtual Brain
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1621 Site-differences and inter-rater reliability of visual QC for Freesurfer parcellations
Pradeep Reddy Raamana[1], Athena Theyers[2], Stephen Arnott[3], Stefanie Hassel[4], Jacqueline Harris[5], Mojdeh Zamyadi[6], Raymond Lam[7], Roumen Milev[8], Daniel Mueller[9], Susan Rotzinger[10], Sidney Kennedy[11], Sandra Black[12], Anthony Lang[13], Robert Bartha[14], Glenda McQueen[15], The CANBIND Investigator Team[16], The ONDRI Study Group[17], Stephen Strother[6]
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1626 Generating age-specific gradient density and parcellation maps of functional connectivity in infants
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1631 Combining dense prediction and semi-supervised learning for venous segmentation
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1640 2D R2U-Net and Plane Aggregation for Fetal Cortical Plate segmentation
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1698 Evaluation of common brain atlases used in the a priori identification of functional networks
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Task-Independent and Resting-State Analysis

1055 Genetic Control over Cerebral Blood Flow and Resting State Regional Homogeneity Signal
Bhim Adhikari[1], L. Elliot Hong[1], Danny Wang[2], Laura Rowland[1], Neda Jahanshad[3], Paul Thompson[3], Meghann Ryan[1], Katie Hatch[1], Chen Shou[1], Peter Kochunov[1]
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1061 Large-scale Morphological and Functional Network Efficiency: Cognitive and Emotional Intelligence
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1067 Detecting Altered Resting-State Functional Network Organization in PTSD with Asymptotical Surprise
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1069 Heritability estimates on rsfMRI phenotypes using the ENIGMA analysis pipeline
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1104 Neuropeptide Y variation and functional connectivity of the salience network
Katherine Warthen[1], Brian Mickey[2], Robert Welsh[1]
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1105 Hierarchical organization of intrinsic temporal dynamics throughout the human brain
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1121 Complex Singular Value Decomposition for the Processing and Analysis of Resting State Imaging
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1134 Spectral signature and behavioral consequence of spontaneous fluctuations in pupil-linked arousal
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1154 Weighted Permutation Entropy as a Measure of Signal Complexity in Resting-State fMRI
Stephan Krohn[1,2], Nina von Schwanenflug[1,2], Amy Romanello[1,2], Carsten Finke[1,2]
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1174 Confirmatory Investigation of Psychiatric and Neuropsychological Correlates of Default Mode Network
Max Owens[1], De-Kang Yuan[1], Sage Hahn[1], Matthew Albaugh[1], Nicholas Allgaier[1], Bader Chaarani[2], Alexandra Potter[1], Hugh Garavan[3]
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1179 Estimation of Vigilance Fluctuations in Resting-state fMRI with a Predefined Template
Maryam Falahpour[1], Yixiang Mao[1], Thomas Liu[1]
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1231 ALFF response interaction with learning during feedback in individuals with MS and healthy controls.
Angela Spirou[1], Rakibul Hafiz[2], Bharat Biswal[2], Joshua Sandry[3], Ekaterina Dobryakova[1]
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1234 Basic BOLD signal properties of HCP data and their influence on calculated metrics of complexity
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1238 A low-rank minimum norm template for estimation of vigilance fluctuations in resting-state fMRI
Yixiang Mao[1], Maryam Falahpour[1], Thomas Liu[1]
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1242 Functional Connectivity Patterns between Hippocampi and Language Cortex in Temporal Lobe Epilepsy
Allison Whitten[1], Monica Jacobs[1], Dario Englot[1], Baxter Rogers[1], Victoria Morgan[1]
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1278 Modulation of resting state functional networks by continuous stimulation
Yul-Wan Sung[1], Seiji Ogawa[2]
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1330* Gastric-brain coupling predominates in primary and association sensory-motor regions
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1347 Resting State Functional Connectivity in Binge Drinkers with and without Marijuana Use
Tien Tong[1], Jatin Vaidya[1], John Kramer[1], Samuel Kuperman[1], Douglas Langbehn[1], Daniel O'Leary[1]
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1348 Long time-scale organization of spontaneous brain activity as measured by resting-state fMRI
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1360 LSD attenuates the macroscale functional hierarchy of the brain
Manesh Girn[1], Leor Roseman[2], Boris Bernhardt[1], Jonathan Smallwood[3], Robert Leech[4], Robin Carhart-Harris[2], Nathan Spreng[1]
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1391 Representation of task FMRI using tools from graph signal processing
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1413 Examining the association between fMRI brain entropy features and behavioral measures
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1418 Data driven approach to dynamic resting state functional connectivity in those at risk for PTSD
Carissa Weis[1], Ashley Huggins[1], Jacklynn Fitzgerald[2], Tara Miskovich[3], Kenneth Bennett[1], Elizabeth Parisi[1], Kate Webb[1], Terri deRoon-Cassini[4], Christine Larson[1]
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1428 Assessing variability in template-based fMRI prediction of vigilance fluctuations
Sarah Goodale[1], Catie Chang[1]
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1434 Age-Related Alterations in Alpha-Peak Parameters, 1/f Neuronal Noise and Their Relation to Cognition
Elena Cesnaite[1], Tim Paul Steinfath[1], Mina Jamshidi Idaji[1,2], Tilman Stephani[1], Christian Sander[3,4], Tilman Hensch[3,4], Ulrich Hegerl[5], Steffi Riedel-Heller[6,4], A. Veronica Witte[1,4], Arno Villringer[1,7], Vadim V. Nikulin[1,8]
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1465 Naturally occurring sleep loss and amygdala functional connectivity following psychosocial stress
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1475 The impact of habitual coffee intake in stress and resting-state networks
Maria Picó-Pérez[1], Madalena Esteves[2], Ricardo Magalhães[2], Pedro Silva Moreira[2], Mafalda Sousa[2], Rita Vieira[2], Teresa Castanho[2], Liliana Amorim[2], Pedro Morgado[2], Nuno Sousa[3]
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1561 Cross validation based kNN derived mapping of voxels to blood vessel territories
Serdar Aslan[1,2], Nicolette F. Schwarz[1,2], Blaise Frederic[1,2]
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1584 Local dynamics coherence in lateral temporal cortex during spontaneous attentional cycling
Joaquín Herrero[1], Rodrigo Henríquez[2], Pablo Billeke[3], Reinaldo Uribe[1], Cristian Cantillano[1], Pablo Fuentealba[1], Francisco Aboitiz[4]
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1589 An Alternative to the Sliding Window: Validating Dynamicity in rs-fMRI with a Data-Driven Approach
Marlena Duda[1], Danai Koutra[1], Chandra Sripada[1]
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1590 The Relationship Between Resting-State Brain Signal Variability and Dynamic Network Transitions
Zachary Goodman[1], Sierra Bainter[1], Taylor Bolt[1], Lucina Uddin[1,2], Jason Nomi[1]
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1598 EEG Resting-State Networks in Simultaneous fMRI-EEG Recordings: Comparison of Spatial Patterns
Stanislav Jiříček[1,2,3], Jaroslav Hlinka[1,3], Vlastimil Koudelka[3], David Tomeček[3]
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1628 Neonatal functional connectivity MRI preprocessing toolbox
Vicente Enguix[1], Yang Ding[2], David Luck[2], Julien Cohen-Adad[1], Gregory Lodygensky[2]
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1659 Validating fMRI Entropy measures with Pharmacological Neuromodulation
Kaundinya Gopinath[1], Robyn Miller[2], Eric Maltbie[1], Leonard Howell[1], Phillip Sun[1]
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1678 Frequency-domain Correlation within Cerebral Functional Systems in Rats
Wen-Ju Pan[1], Vahid Khalilzad Sharghi[1], Eric Maltbie[1], Xiaodi Zhang[1], Nan Xu[1], Shella Keilholz[1]
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1680 Modulations of long-range temporal correlation in neuromagnetic brain activity across age and gender
Ola Choukair[1], Tarek Lajnef[2], Etienne Combrisson[3], Arthur Dehgan[4], Karim Jerbi[5]
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Univariate Modeling

1153 Searching for replicable associations between cortical thickness and psychometric variables
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1191* The BrainSuite Statistics Toolbox in R (bssr)
Shantanu Joshi[1], Yeun Kim[1], Kayla Schroeder[1], Anand Joshi[2], Richard Leahy[2], David Shattuck[3]
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1217 Modelling Lesion Masks: Comparison of Classical, Bias-Adjusted and Bayesian Regression Methods
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1349 Is rest really the best baseline for task-based fMRI studies?
Suzanne Witt[1], Ladan Shahshahani[1], Joern Diedrichsen[1]
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Other Methods

1006 Myelination and Executive Function Deficits in Youth Born with Congenital Heart Disease
Kaitlyn Easson[1], Guillaume Gilbert[2], Jean-Christophe Houde[3], Athena Buckthought[1], Charles Rohlicek[4], Christine Saint-Martin[5], Maxime Descoteaux[3], Sean Deoni[6], Marie Brossard-Racine[1,7]
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1030 Why de-face when you can re-face?
Robert Cox[1]
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1098* E-COBIDAS: a webapp to improve neuroimaging methods and results reporting
Remi Gau[1], Cassandra Gould van Praag[2], Sanu Ann Abraham[3], David Moreau[4], Tim van Mourik[5], Zsuzsika Sjoerds[6], Kristina Wiebels[4], Satrajit Ghosh[7], Thomas Nichols[8]
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1483 The sound of resting-state fMRI
Thomas Bolton[1], Karin Bortolin[2], Julia Brügger[3], Farnaz Delavari[4], Valentin Gabeff[2], Lyell Gruneberg[2], Moez Maamer[2], Camille Mitchell[2], Hugo Powell[2], Charlotte Qin[2], Julien Rimok[2], Paula Sanchez Lopez[2], Giedre Stripeikyte[1], Emma Tolley[2], Raphael Liegeois[5]
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1544 Initial Polarization of a Dense Population of Pyramidal Neurons Subject to External Electric Field
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NEUROANATOMY, PHYSIOLOGY, METABOLISM AND NEUROTRANSMISSION

Anatomy and Functional Systems

1781 Gradients of intrinsic dynamics follow connectomic, anatomical, and microstructural hierarchies
Daniel Lurie[1], Mark D'Esposito[1]
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1788 Mapping callosal projections along the principal gradient of functional connection
Patrick Friedrich[1,2], Stephanie Forkel[2,1,3], Michel Thiebaut de Schotten[1,2]
[1]BCBlab, Bordeaux, Aquitaine, [2]Institut des Maladies Neurodégénératives, Bordeaux, France, [3]King's College London, London, Greater London

1798 Individual Variation in Functional Topography of Association Networks in Youth
Zaixu Cui[1], Hongming Li[1], Cedric Xia[1], Bart Larsen[1], Azeez Adebimpe[1], Graham Baum[1], Matthew Cieslak[1], Raquel Gur[1], Ruben Gur[1], Tyler Moore[1], Desmond Oathes[1], Aaron Alexander-Bloch[1], Armin Raznahan[2], David Roalf[1], Russell Shinohara[1], Daniel Wolf[1], Christos Davatzikos[1], Danielle Bassett[1], Damien Fair[3], Yong Fan[1], Theodore Satterthwaite[1]
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1807 Integrative Imaging, Functional, Transcriptomic Analyses of Sex-Biased Brain Organization in Humans
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1808 Anchoring the human olfactory system to a functional gradient
Alice Waymel[1,2], Patrick Friedrich[1,2], Stephanie Forkel[1,2], Michel Thiebaut de Schotten[1,2]
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1810 Lesion Analysis for Recovery of Hemispatial Neglect in Stroke: Voxel-Based Lesion-Symptom Mapping
Bo Mi Kwon[1], Nayeon Ko[1], Hyun Haeng Lee[1], Won-Jin Moon[2], Jongmin Lee[1]
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1813 Eye movement control in the human oculomotor cerebellum
Maxine Ruehl[1,2], Leoni Ophey[1,2], Matthias Ertl[3], Peter Zu Eulenburg[4,2]
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1814* Towards an Accurate Identification of Vascular Territories in the Human Brain
Mykyta Smirnov[1,2], Barthélémy Serres[3], Gaelle Kerdiles[4], Laurent Barantin[1], Vitalina Zhornyk[2], Igor Lima Maldonado[1,4], Christophe Destrieux[1,4]
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1816 Resting-state functional connectivity abnormalities associated with cerebellar mutism syndrome
Stu McAfee[1], Ping Zou[1], Yian Guo[1], Yimei Li[1], Heather Conklin[1], Giles Robinson[1], Amar Gajjar[1], Raja Khan[1], Zoltan Patay[1], Matthew Scoggins[1]
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1818 Handedness and Other Variables Associated with Human Brain Asymmetrical Skew
Xiangzhen Kong[1], Merel Postema[1], Amaia Carrión-Castillo[1], Antonietta Pepe[2], Fabrice Crivello[3], Marc Joliot[3], Bernard Mazoyer[3], Simon Fisher[1,4], Clyde Francks[1,4]
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1822 Neural correlates and prediction of visual field deficits after selective amygdalahippocampectomy
Bastian David[1], Jasmine Eberle[2], Daniel Delev[3], Jennifer Gaubatz[2], Conrad Prillwitz[2], Jan Wagner[2], Bettina Wabbels[4], Bernd Weber[2], Christian Elger[2], Rainer Surges[2], Theodor Rüber[2,5,6]
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1825 Metabolic basis of activated and deactivated brain network nodes in fMRI paradigms
Yury Koush[1], Robin de Graaf[1], Ron Kupers[2], Laurence Dricot[3], Maurice Ptito[4], Kevin Behar[1], Douglas Rothman[1], Fahmeed Hyder[1]
[1]Yale University, New Haven, CT, [2]University of Copenhagen, Copenhagen, C, [3]University of Louvain, Louvain, FB, [4]University of Montreal, Montreal, Quebec

1826 Mapping Systematic Changes in Community Assignment Across Parcellation Resolutions
Savannah Cookson[1], Mark D'Esposito[2]
[1]UC Berkeley, Berkeley, CA, [2]University of California, Berkeley, Berkeley, CA

1834 What receptor fingerprints reveal about macaque cingulate cortex organization
Lucija Jankovic-Rapan[1], Karl Zilles[2], Sean Froudist-Walsh[3], Nicola Palomero-Gallagher[4]
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1835 Anesthetic modulation of sensory-evoked response in rat brain: the cerebral cortex vs. the thalamus
Kwangyeol Baek[1], Chae Ri Park[2], Woo Hyun Shim[3], Young Kim[4]
[1]Massachusetts General Hospital, Boston, MA, [2]Asan Medical Center, Seoul, South Korea, [3]Asan Medical Center, Seoul, Seoul, [4]Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston, MA

1844* BrainVR: A Virtual Reality System for Neurology Education
Gonzalo Rojas[1], Jorge Fuentes[1], Carlos Montoya[1], Evelyng Faure[1], Maria de la Iglesia-Vayá[2]
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1852 Decreased functional connectivity in smoking contrast increased in drinking in the early visual area
Zhuo Wan[1], Edmund Rolls[2], Wei Cheng[3], Ruiqing Feng[4], Jianfeng Feng[3]
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1879 Cerebro-Cerebellar Resting-State Functional Connectivity Investigated in Macaque and Human
Joonas Autio[1], David Van Essen[2], Takayuki Ose[1], Kantaro Nishigori[3], Masahiro Ohno[1], Matthew Glasser[2], Takuya Hayashi[1]
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Cortical Anatomy and Brain Mapping

1769 Neuroanatomical Developmental Trajectories and Clinical Outcome in Autism Spectrum Disorder (ASD)
Charlotte Pretzsch[1], Tim Schäfer[2], Caroline Mann[2], Anke Bletsch[2], Julian Tillmann[1], Afsheen Yousaf[2], Christine Freitag[2], Declan Murphy[1], Christine Ecker[2], LEAP Group EU AIMS[3]
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1773 Longitudinal Parcellation of the Infant Cortex Using Multi-Modal Connectome Harmonics
Hoyt Taylor[1], Sahar Ahmad[1], Ye Wu[1], Khoi Huynh[1], Zhen Zhou[1], Zhengwang Wu[1], Weili Lin[1], Li Wang[1], Gang Li[1], Han Zhang[1], Pew-Thian Yap[1], the UNC/UMN Baby Connectome Project Consortium[1]
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1778 Receptor-driven, multimodal mapping of cortical areas in the intraparietal sulcus of macaque monkey
Meiqi Niu[1], Nicola Palomero-Gallagher[1], Lucija Jankovic-Rapan[1], Sean Froudist-Walsh[2], Karl Zilles[1]
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1784 Sex chromosome aneuploidy alters the relationship between cortical anatomy and cognitive functioning
Allysa Warling[1], Ethan Whitman[1], Kathleen Wilson[1], Liv Clasen[1], Siyuan Liu[1], Jonathan Blumenthal[1], François Lalonde[1], Armin Raznahan[1]
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1785* The Cortical Wiring Scheme of Hierarchical Information Processing
Casey Paquola[1], Jakob Seidlitz[2], Oualid Benkarim[1], Jessica Royer[1], Petr Klimes[1], Richard Bethlehem[3], Sara Lariviere[1], Reinder Vos de Wael[1], Jeffrey Hall[1], Birgit Frauscher[1], Jonathan Smallwood[4], Boris Bernhardt[1]
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1786 Parametric representation of sulcal and gyral curves
Moo Chung[1], Shih-Gu Huang[1], Ilwoo Lyu[2]
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1790 Association between parental age, brain, and psychiatric and cognitive problems in children
Jingnan Du[1], Edmund Rolls[2], Weikang Gong[3], Miao Cao[1], Deniz Vatansever[1], Wei Cheng[1], Jianfeng Feng[1]
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1795* Cannabis Use During Adolescence Is Associated With Altered Cerebral Cortical Development
Matthew Albaugh[1], Jonatan Ottino-Gonzalez[1], Amanda Sidwell[1], Claude Lepage[2], Anthony Juliano[1], Catherine Orr[3], Max Owens[1], Bader Chaarani[4], Lindsay Lewis[2], Alan Evans[5], Deepak D'Souza[6], Rajiv Radhakrishnan[6], Alexandra Potter[1], Hugh Garavan[7]
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1796 Harmonizing Entorhinal Boundaries of Disparate Atlases: Implications for Alzheimer's MRI Biomarkers
Sue Kulason[1], Eileen Xu[1], Michael Miller[1]
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1800 Lesion Locations Related with Recovery of Post-stroke Dysphagia
Nayeon Ko[1], BoMi Kwon[1], Hyun Haeng Lee[1], Won-Jin Moon[2], Jongmin Lee[1]
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1801 Neuroanatomical Signature of Nyaope Addiction-Implications for South African Drug Treatment Policy
Nhanisi Ndlovu[1], Nirvana Morgan[1], Stella Malapile[2], William Daniels[1], Ugasvaree Subramaney[1], Martijn van den Heuvel[3], Tanya Calvey[1]
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1802 Structural covariance of thickness is organized along neurogenetic and neurodevelopmental axes
Sofie Valk[1], Ting Xu[2], Daniel Margulies[3], Shahrzad Kharabian Masouleh[4], Casey Paquola[5], Alexandros Goulas[6], Peter Kochunov[7], Jonathan Smallwood[8], B.T. Thomas Yeo[9], Boris Bernhardt[10], Simon Eickhoff[11]
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1804 Morphological and functional variability in central and subcentral motor regions of the human brain
Nicole Eichert[1], Kate Watkins[1], Rogier Mars[1], Michael Petrides[2]
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1809 The Modular Organization of Heritability Across the Cortex
Nadia Blostein[1], Sejal Patel[2], Gabriel Devenyi[3], Raihaan Patel[1], M Mallar Chakravarty[1]
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1811 A study on brain activation during the elbow exercise in the presence or absence of a weight
MiHyun Choi[1], Jin-Ju Jung[2], Je-Hyeop Lee[2], Soon-Cheol Chung[2]
[1]Konkuk University, Chungju, ChungChungbuk-do, [2]Konkuk University, Chungju, Chungchungbuk-do

1815 Associations between birth weight and adult cortical structure in a large general population sample
Heather Whalley[1], Emma Neilson[1], Xueyi Shen[1], Mathew Harris[1], Mark Adams[1], Simon Cox[1], James Boardman[1], Stephen Lawrie[1], Andrew McIntosh[1]
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1819 The relationship between body mass index and cortical neurite distributions
Koji Hatano[1,2,3], Nooshin Abbasi[1], Uku Vainik[4], Takuya Hayashi[2], Takeshi Terao[3], Alain Dagher[1]
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1827 The impact of cortical realignment approaches on parcellated analyses in humans
Erin Dickie[1], Ella Wiljer[2], Mathuvanthi Manogaran[2], Jerrold Jeyachandra[2], Laura Grennan[2], Aristotle Voineskos[3]
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1828 3D digitalization of fresh brains by photogrammetry
Carlos Rueda[1], Laura Jaramillo[1], Carlos Villegas[1]
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1837 Reliability of different longitudinal pipelines for the analysis of structural MR images
Martin Gell[1], Elisabeth Wenger[2], Julian Karch[2], Nina Lisofsky[2], Maxi Becker[2,3], Oisin Butler[2], Martyna Lochstet[2], Johan Mårtensson[4,2], Ulman Lindenberger[2], Elisa Filevich[1,5,2], Simone Kühn[2,3]
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1842 The links between precentral sulcus interruptions and language-associated area 55b
Zhong Yi Sun[1], Clara Fischer[2], Antoine Grigis[3], Denis Riviere[4], Jean-François Mangin[5]
[1]Neurospin, Gif-sur-Yvette, Ile de France, [2]CEA-Neurospin, Gif-sur-Yvette, N/A, [3]Neurospin, CEA, Gif-sur-Yvette, france, [4]CEA, UNATI, Gif-sur-Yvette, N/A, [5]CEA - NeuroSpin, Gif-sur-Yvette, Ile de France

1845 The orientation-dependence of stria of Gennari ex vivo in high-resolution MRI phase data
Anna Blazejewska[1], Lucia Navarro De Lara[1], Berkin Bilgic[1], Divya Varadarajan[1], Andre van der Kouwe[1], Jean Augustinack[1], Bruce Fischl[1], Jonathan Polimeni[1,2]
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1846 Preserved 'retinotopic' maps in occipital areas repurposed for language in bilateral anophthalmia
Koen Haak[1], Holly Bridge[2], Christian Beckmann[1]
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1850 Agreement between Freesurfer and CAT12 Cortical Thickness in Children
Cameron McKay[1], Marissa Laws[1], Mayesha Awal[1], Ryan Mannion[1], Emma Walsh[1], Julian Marable[1], Guinevere Eden[1]
[1]Georgetown University, Washington, DC

1854 Long-term impact of cerebellar mass resection on cognition and emotion: mixed methodology
Claire Lunde[1,2,3,4], Christine Sieberg[1,2,3,5], Katie Silva[1], Nicole Ullrich[6,7,8], Peter Manley[7,8], Eric Moulton[1,9]
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1857 Fine-grained level of cortical remapping depends on the level of nervous system injury
Carmen Cirstea[1], In-Young Choi[2], Phil Lee[2]
[1]University of Missouri, Columbia, MO, [2]University of Kansas Medical Center, Kansas City, KS

1862 Multi-modal refinement of pial surfaces based on T1-MPRAGE and T2 images
Viviana Siless[1], Bruce Fischl[2], Douglas Greve[3]
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1863 Dense mappings between cortical surfaces in Euarchontoglires using phylogenic relationships.
Ernst Schwartz[1], Katja Heuer[2], Nathan Jefferey[3], Karl-Heinz Nenning[1], Romain Valabregue[4], Marc Herbin[5], Gregor Kasprian[6], Roberto Toro[7,8], Georg Langs[1]
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1866 The morphological evolution of the primate brain revealed by alignment of the cortical sulci
Yann Leprince[1], Alexia Stochino[1], Ophélie Foubet[1], William Hopkins[2], Jean-François Mangin[1]
[1]NeuroSpin, CEA, Université Paris-Saclay, Gif-sur-Yvette, France, [2]University of Texas MD Anderson Cancer Center, Bastrop, TX

1874 Cortical Surface Metrics and Volumetrics at Term Predict Motor Development in Very Preterm Infants
Matthew Bugada[1], Julia Kline[1], Venkata Sita Priyanka Illapani[1], Karen Harpster[2,3], Nehal Parikh[1,4]
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1875 Histologic Validation of Hippocampal Subregions in Ex Vivo MRI
Nicole Pihlstrom[1], Emily Williams[2], Josue Rodriguez-Llamas[2], Matthew Frosch[3], Andre van der Kouwe[4], Bruce Fischl[4], Jean Augustinack[4]
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1877 NeuroLang: Representing Neuroanatomy with Sulcus-Specific Queries
Antonia Machlouzarides-Shalit[1], Nikos Makris[2], Gaston Zanitti[1], Valentin Iovene[1], Guillaume Lemaitre[1], Guillaume Favelier[1], Demian Wassermann[1]
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1885 Correlation of Myelin Content and Neurite Density in the Early Developing Human Cortex
Khoi Huynh[1,2], Sahar Ahmad[2], Ye Wu[2], Kim-Han Thung[2], Zhengwang Wu[2], Weili Lin[2,1], Li Wang[2], Gang Li[2], Pew-Thian Yap[2,1], the UNC/UMN Baby Connectome Project Consortium[2]
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Cortical Cyto- and Myeloarchitecture

1770 Ex vivo mapping of the cyto- and myeloarchitecture of the human cerebral cortex using UHF MRI
Raïssa Yebga Hot[1,2], Alexandros Popov[1,2], Justine Beaujoin[1], Gaël Perez[1,3], Fabrice Poupon[1,2], Igor Lima Maldonado[4], Jean-François Mangin[1,2], Christophe Destrieux[4], Cyril Poupon[1,2]
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1791 Four new cytoarchitectonic areas surrounding the primary and early auditory cortex in human brains
Daniel Zachlod[1], Britta Rüttgers[2], Hartmut Mohlberg[3], Sebastian Bludau[4], Robert Langner[5], Karl Zilles[6], Katrin Amunts[7]
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1817 Assessing Quantitative MRI Techniques using Multimodal Comparisons
Francis Carter[1], Alfred Anwander[2], Thomás Goucha[2], Helyne Adamson[2], Angela Friederici[2], Christopher Steele[1,3]
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1821 Cortical confluence: Cytoarchitectural mapping of the transition from iso to allocortex.
Casey Paquola[1], Oualid Benkarim[1], Jordan DeKraker[2], Ali Khan[2], Neda Bernasconi[3], Boris Bernhardt[1]
[1]Montreal Neurological Institute, McGill University, Montreal, Quebec, [2]University of Western Ontario, London, Ontario, [3]Neuroimaging of Epilepsy Laboratory, McConnell Brain Imaging Center, Montreal Neurological Institute, Montreal, Quebec

1831* Evolution of cortical myelination in chimpanzees
Ilona Lipp[1], Evgeniya Kirilina[1,2], Carsten Jäger[1], Markus Morawski[3], Anna Jauch[1], Kerrin Pine[1], Luke Edwards[1], Cornelius Eichner[4], Alfred Anwander[4], Angela Friederici[4], Roman Wittig[5], Catherine Crockford[5], Nikolaus Weiskopf[1,6]
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1858 Cortical Atlas of the Domestic Canine Brain
Philippa Johnson[1], Wen-Ming Luh[2], John Loftus[1], Kathleen Graham[3], Andrew White[3], Erica Barry[4]
[1]Cornell University, Ithaca, NY, [2]National Institute of Aging, Baltimore, MD, [3]The University of Sydney, Sydney, NSW, [4]Cornell University, Sacramento, CA

1865 Laminar-specific microstructural gradients reveal differentiated hierarchical organization
Xindi Wang[1], Casey Paquola[1], Lindsay Lewis[1], Boris Bernhardt[1], Alan Evans[1]
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1871 In Vivo Myeloarchitectonic Abnormalities in Middle-Aged Adults with Autism Spectrum Disorder (ASD)
Jiwandeep Kohli[1], Ian Martindale[2], Mikaela Kinnear[3], Lisa Mash[2], Ian Shryock[2], Ruth Carper[2], Ralph-Axel Müller[2]
[1]SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, San Diego, CA, [2]San Diego State University, San Diego, CA, [3]Autism Discovery Institute, Rady Children's Hospital, San Diego, CA

1883 Neuroimaging measures of cortical demyelination after mild traumatic brain injury in older adults
Sean Mahoney[1], Nikhil Chaudhari[1], Andrei Irimia[1]
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Microcircuitry and Modules

1793 Microanatomy of the Mouse Auditory Cortex – Structural Basis for Acoustic Communication Processing?
Philip Ruthig[1,2], Alexandra John[1], Stefan Geyer[2], Marc Schönwiesner[1,3]
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Normal Development

1771 Volumetric Analysis of Cerebrospinal Fluid (CSF) as a Function of Age and Gender
Ali Bourisly[1], Ali Shuaib[1], Abrar Hayat[2], Fatima Dashti[2], Lamia Alsarraf[2]
[1]Kuwait University, Kuwait, Kuwait, [2]Ibn Sina Hospital, Ministry of Health, Kuwait, Kuwait

1777 Testosterone-Cortisol Ratio Alters Top-Down Processes as a Function of Cortico-Amygdalar Development
Jimin Lew[1], Sherri Jones[1], Marie-Pier Lecours[1], Isobel Orfi[1], Charlotte Little[1], Kelly Botteron[2], Simon Ducharme[1], James McCracken[3], Tuong-Vi Nguyen[4]
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1779 Linked signatures of brain structure and function in young children predict pre-reading measures
Kathryn Manning[1], Jess Reynolds[1], Dmitrii Paniukov[1], Deborah Dewey[1], Catherine Lebel[2]
[1]University of Calgary, Calgary, Alberta, [2]University of Calgary, Caglary, Alberta

1812 Development of Brain White Matter Functional Network in Typically Developing Children and Adolescent
Xuan Bu[1], Yingxue Gao[1], Kaili Liang[1], Hailong Li[1], Xinyu Hu[1], Bharat Biswal[2], Qiyong Gong[1], Xiaoqi Huang[1]
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1820 Cortical Thinning During Childhood and Adolescence, Gene Expression, and Psychiatric Disorders
Nadine Parker[1], Yash Patel[1], Andrea Parolin Jackowski[2], Mario Pedro Pan[2], Giovanni Abrahão Salum[3], Zdenka Pausova[4], Tomas Paus[5]
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1855 Effect of regional variation in nonlinear scaling on voxelwise morphology of the human brain
Timothy Koscik[1]
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1870 DNAm Predicts Future Gray Matter Volume and Cognitive Performance in Normally Developing Children
Jiayu Chen[1], Julia Stephen[2], Yu-Ping Wang[3], Tony Wilson[4], Jingyu Liu[5], Vince D. Calhoun[1]
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Subcortical Structures

1768 Multimodal high-resolution mapping of subcortical regions with MAP-MRI and histology
Kadharbatcha Saleem[1,2], Alexandru Avram[1,2], Frank Ye[3], Cecil Chern-Chyi Yen[4], Michal Komlosh[1,2], Peter Basser[1,2]
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1775 Parcellation of the human basal forebrain based on diffusion-weighted structural connectivity data
Sudesna Chakraborty[1], Taylor Schmitz[1], Ali Khan[1]
[1]University of Western Ontario, London, Ontario

1782 Multi-contrast Anatomical Subcortical Structures Parcellation
Pierre-Louis Bazin[1], Anneke Alkemade[1], Birte Forstmann[1]
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1783 The effect of a physical activity intervention on the anterior hippocampus of young adolescents
Thomas Wassenaar[1], Piergiorgio Salvan[2], Nicholas Beale[3], Catherine Wheatley[4], Claire Sexton[1], Helen Dawes[3], Heidi Johansen-Berg[1]
[1]University of Oxford, Oxford, Oxfordshire, [2]University of Oxford, Oxford, United Kingdom, [3]Brookes University, Oxford, Oxfordshire, [4]University of Oxford, Oxford, OH

1789 Cytoarchitectonic Mapping of the ventral striatum and pallidum in ten human postmortem brains
Andrea Brandstetter[1], Hartmut Mohlberg[1], Katrin Amunts[1]
[1]Research Center Juelich, Juelich, North-Rhine Westphalia

1792 The multimodal 7 Tesla submillimeter Amsterdam Ultra-high field adult lifespan database (AHEAD)
Anneke Alkemade[1], Martijn Mulder[2], Josephine Groot[1], Bethany Isaacs[1], Nikita Van Berendonk[1], Nicky Lute[1], Scott Isherwood[1], Pierre-Louis Bazin[1], Birte Forstmann[1]
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1824 The effects of diffusion signal modeling and segmentation approaches on subthalamic parcellation
Gianpaolo Basile[1], Salvatore Bertino[1], Joshua Faskowitz[2], Giuseppe Anastasi[1], Demetrio Milardi[1,3], Alberto Cacciola[1]
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1836 Measuring Biological Gradients along the Human Dorsal Striatum in vivo using Quantitative MRI
Elior Drori[1], Shir Filo[1], Aviv Mezer[1]
[1]The Hebrew University of Jerusalem, Jerusalem, Israel

1853 Somatovisual processing in the deep layers of the human superior colliculus
Kevin Sitek[1], Qureshi Asma[1], Francesko Molla[2], Gisela Hagberg[2], Jung Hwan Kim[1], Klaus Scheffler[3], Marc Himmelbach[4], David Ress[1]
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1856 Direct visualization and characterization of the human zona incerta and surrounding fiber tracts
Jonathan Lau[1], Yiming Xiao[2], Greydon Gilmore[3], Keith MacDougall[1], Andrew Parrent[1], Catherine Currie[1], Terry Peters[1], Ali Khan[4]
[1]Western University, London, Ontario, [2]Robarts Research Institute, Western University, London, Ontario, [3]Western University, London, ON, [4]University of Western Ontario, London, Ontario

1859 Mapping the human subcortical auditory system with 3T quantitative MRI
Kevin Sitek[1], Satrajit Ghosh[2]
[1]Baylor College of Medicine, Houston, TX, [2]MIT, Cambridge, MA

1867 Morphological Heterogeneity of the Human Nucleus Accumbens: Characterising the Core and Shell
Eugene McTavish[1], Chao Suo[1], Jeggan Tiego[1], Yann Chye[1], Yu-Chi Chen[1], Kevin Aquino[1], Rebecca Segrave[1], Mark Bellgrove[1], Alex Fornito[1], Mürat Yucel[1]
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1878 Cerebellar contribution to cognitive processing
Ladan Shahshahani[1], Joern Diedrichsen[2]
[1]University of Western Ontario, London, Ontario, [2]the University of Western Ontario, London, Western Ontario

1881 Linking vestibular function and sub-cortical volume changes in a longitudinal study of aging adults
Dominic Padova[1], J. Tilak Ratnanather[2], Yuri Agrawal[1]
[1]Department of Otolaryngology–Head and Neck Surgery, Johns Hopkins University School of Medicine, Baltimore, MD, [2]Center for Imaging Science, Department of Biomedical Engineering, The Johns Hopkins University, Baltimore, MD

1882 Comparative behavioral and task fMRI in Focal Hand Dystonia during increasingly complex motor task
Noreen Bukhari-Parlakturk[1], Andrew Michael[1], Mariusz Derezinski-Choo[1], James Voyvodic[1], Simon Davis[1], Nicole Calakos[1]
[1]Duke University, Durham, NC

1886 Characterization of the hippocampal formation using diffusion-weighted imaging
Mohamed Yousif[1], Jordan DeKraker[1,2], Ali Khan[1,2], Roy Haast[1,2]
[1]University of Western Ontario, London, Ontario, [2]Robarts Research Institute, London, Ontario

White Matter Anatomy, Fiber Pathways and Connectivity

1772 Tissue properties of visual white matter pathways in glaucoma
Shumpei Ogawa[1], Hiromasa Takemura[2,3], Hiroshi Horiguchi[1], Atsushi Miyazaki[4], Kenji Matsumoto[4], Yoichiro Masuda[1], Keiji Yoshikawa[5,6], Tadashi Nakano[1]
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1774 Tract-specific microstructural anomaly detection using autoencoders for single subject analysis
Maxime Chamberland[1], Sila Genc[1], Erika Raven[1], Chantal Tax[1], Gred Parker[1], Adam Cunningham[2], Joanne Doherty[1,2], Marianne van den Bree[2], Derek Jones[1]
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1776 New insights into the anatomy, connectivity and functions of the middle longitudinal fasciculus
Francesco Latini[1], Gianluca Trevisi[2], Markus Fahlström[1], Malin Jemstedt[1], Åsa Alberius Munkhammar[1], Maria Zetterling[1], Göran Hesselager[1], Mats Ryttlefors[1]
[1]Uppsala University, Uppsala, Sweden, [2]Ospedale Santo Spirito, Neurosurgical Unit, Pescara, Italy

1780 Towards identifying reliable short-ranged, "U"-shaped structural connectivity
Jason Kai[1], Ali Khan[1]
[1]University of Western Ontario, London, Canada

1787 Cross-species connectivity blueprint gradients uncover multiscalar human temporal lobe adaptations
Guilherme Blazquez Freches[1], Koen Haak[1], Katherine Bryant[2], Alberto Llera[1], Saad Jbabdi[2], Christian Beckmann[1,2], Rogier Mars[2,1]
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1794 Classifyber: a linear classifier of single streamlines for white matter bundle segmentation
Emanuele Olivetti[1,2], Daniel Bullock[3], Pietro Astolfi[1,2,4], Soichi Hayashi[3], Luca Zigiotto[5], Luciano Annicchiarico[5], Francesco Corsini[5], Alessandro De Benedictis[6], Silvio Sarubbo[5], Franco Pestilli[7], Paolo Avesani[1,2], Giulia Bertó[1,2]
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1799 Microstructural changes in the reward system are associated with post-stroke depression
Lena Oestreich[1], Paul Wright[2], Michael O'Sullivan[1]
[1]The University of Queensland, Brisbane, Australia, [2]King's College London, London, UK

1803 Probing myelination of distinct fibres within the same voxel using myelin-weighted tractography
Simona Schiavi[1,2], Po-Jui Lu[3,4], Matthias Weigel[3,4,5], Derek K. Jones[6,7,8], Ludwig Kappos[3,4], Cristina Granziera[3,4], Alessandro Daducci[1]
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1805 Is Posterior Subthalamic Area Important for Fiber Tracking of Dentato-Rubro-Thalamic Tract?
Anupa Ambili Vijayakumari[1], Drew Parker[1], Ronald L Wolf[1], Jacob Antony Alappatt[1], Andrew I Yang[1], Ashwin Ramayya[1], Ragini Verma[1]
[1]University of Pennsylvania, Philadelphia, PA

1806* **Investigating the axon-diameter based human brain connectome using MRI**
Hila Gast[1], Yaniv Assaf[1]
[1]Tel Aviv University, Tel Aviv, Israel

1823 **Precision DTI Imaging Reveals Incomplete Adult Hemispherotomy**
Nicole Seider[1], Jarod Roland[2], Matthew Smyth[1], Andrew Van[1], David Montez[1], Catherine Hoyt[1], Jacqueline Hampton[1], Kristen Scheidter[1], Deanna Greene[1], Joshua Shimony[1], Nico Dosenbach[3]
[1]Washington University in St Louis, St Louis, MO, [2]University of California, San Francisco, CA, [3]Washington University in St Louis, St. Louis, MO

1829 **Groupwise Tractogram Filtering via Iterative Message Passing and Pruning**
Yihao Xia[1], Yonggang Shi[1]
[1]University of Southern California, Neuroimaging and Informatics Institute, Los Angeles, CA

1830 **Allometric length scaling of the corpus callosum with increasing brain size**
Liyuan Yang[1], Chenxi Zhao[1], Yirong Xiong[1], Gaolang Gong[1]
[1]Beijing Normal University, Beijing, China

1832 **A reproducible set of rules for clinical tractography**
Louis-Marie Terrier[1,2], Frédéric Andersson[1], Laurent Barantin[1], Helen Cléry[1], Ilyess Zemmoura[1,2], Christophe Destrieux[1,2]
[1]UMR 1253, iBrain, Université de Tours, Inserm, Tours, France, [2]CHRU de Tours, Tours, France

1833 **Relation between U-fibers configuration, sulcus shape and hand functional activation in the central**
Miguel Guevara[1], Zhong Yi Sun[1], Denis Riviere[2], Jean-François Mangin[3]
[1]Neurospin, Gif-sur-Yvette, Ile de France, [2]CEA, UNATI, Gif-sur-Yvette, N/A, [3]CEA - NeuroSpin, Gif-sur-Yvette, Ile de France

1838 **ENIGMA-DTI: mapping white matter deficits in cross-diagnostic psychiatric research**
Peter Kochunov[1], L. Elliot Hong[1], Emily Dennis[2,3,4,5], Rajendra Morey[6], David Tate[2,5], Elisabeth Wilde[2,5], Mark Logue[7,8,9,10], Sinead Kelly[3,11], Gary Donohoe[12], Pauline Favre[13,14], Josselin Houenou[13,14,15,16], Christopher Ching[3], Laurena Holleran[12], Ole Andreassen[17,18], Laura van Velzen[19,20], Lianne Schmaal[20,19], Julio Villalon-Reina[3], Carrie Bearden[21,22], Fabrizio Piras[23], Gianfranco Spalletta[23,24], Odile van den Heuvel[25], Dick Veltman[25], Dan Stein[26], Meghann Ryan[1], Yunlong Tan[27], Theo Van Erp[28,29], Jessica Turner[30], Elizabeth Haddad[3], Talia Nir[3], David Glahn[31,32], Paul Thompson[3], Neda Jahanshad[3]
[1]Maryland Psychiatric Research Center, Catonsville, MD, [2]Department of Neurology, University of Utah School of Medicine, Salt Lake City, UT, [3]USC Mark and Mary Stevens Neuroimaging & Informatics Institute, Keck School of Medicine of USC, Marina del Rey, CA, [4]Psychiatry Neuroimaging Laboratory, Brigham & Women's Hospital, Boston, MA, [5]George E. Wahlen VA, Salt Lake City, UT, [6]Brain Imaging and Analysis Center, Duke University, Durham, NC, [7]VA Boston Healthcare System, National Center for PTSD, Boston, MA, [8]Boston University School of Medicine, Department of Psychiatry, Boston, MA, [9]Boston University School of Medicine, Biomedical Genetics, Boston, MA, [10]Boston University School of Public Health, Department of Biostatistics, Boston, MA, [11]Harvard Medical School, Boston, MA, [12]Centre for Neuroimaging and Cognitive Genomics (NICOG), Clinical Neuroimaging Laboratory, NCBES, Galway, Ireland, [13]Neurospin, CEA, Université Paris-Saclay, Gif-sur-Yvette, Gif-sur-Yvette, [14]INSERM Unit U955, Team 15, "Translational Psychiatry", Créteil, France, [15]Assistance Publique-Hôpitaux de Paris (AP-HP), CHU Mondor, Psychiatry Department, Créteil, France, [16]Faculté de Médecine, Université Paris Est Créteil, Créteil, France, [17]Norwegian Centre for Mental Disorders Research (NORMENT), Division of Mental Health and Addictio, Oslo, Norway, [18]Norwegian Centre for Mental Disorders Research, Institute of Clinical Medicine, University of Oslo, Oslo, Norway, [19]Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia, [20]Orygen, The National Centre of Excellence in Youth Mental Health, Parkville, Australia, [21]Semel Institute for Neuroscience and Human Behavior, UCLA, Los Angeles, CA, [22]Department of Psychology, University of California at Los Angeles, Los Angeles, CA, [23]Laboratory of Neuropsychiatry, Dept. Clinical and Behavioral Neurology, IRCCS Santa Lucia Foundation, Rome, Italy, [24]Division of Neuropsychiatry, Menninger Department of Psychiatry and Behavioral Sciences, Baylor College of Medicine, Houston, TX, [25]Amsterdam UMC, Amsterdam, Netherlands, [26]SA MRC Unit on Risk & Resilience in Mental Disorders, University of Capte Town, Cape Town, South Africa, [27]Beijing Huilongguan Hospital, Peking University Huilongguan Clinical Medical School, Beijing, P.R. China, [28]Clinical Translational Neuroscience Laboratory, Dept of Psychiatry, University of California Irvine, Irvine, CA, [29]Center for the Neurobiology of Learning and Memory, University of California Irvine, Irvine, CA, [30]Georgia State University, Atlanta, GA, [31]Department of Psychiatry, Boston Children's Hospital and Harvard Medical School, Boston, MA, [32]Olin Neuropsychiatric Research Center, Hartford Hospital, Hartford, CT

1839 **Lateralization of major fasciculi in the human lineage**
Katherine Bryant[1], Nicole Eichert[1], Longchuan Li[2], Rogier Mars[3]
[1]University of Oxford, Oxford, United Kingdom, [2]Marcus Autism Center, Atlanta, GA, [3]Nuffield Department of Clinical Neurosciences (FMRIB), Oxford, Oxford

1841 **Analysis of fiber characteristics in the isthmus of the corpus callosum: Aboitiz et al. revisited**
Maria Morozova[1,2], Henriette Rusch[2], Carsten Jäger[1], Alfred Anwander[3], Siawoosh Mohammadi[4,1], Stefan Geyer[1], Nikolaus Weiskopf[1,5], Markus Morawski[2]
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1843 The Latent Network Geometry of The Brain: Toward Geometrical Markers in Brain Network Science?
Alberto Cacciola[1], Alessandro Muscoloni[2], Vaibhav Narula[2], Alessandro Calamuneri[3], Salvatore Nigro[4], Emeran Mayer[5], Jennifer Labus[5], Giuseppe Anastasi[1], Aldo Quattrone[4], Liang Zhan[6], Anand Kumar[7], Alex Leow[8], Olusola Ajilore[8], Angelo Quartarone[1], Demetrio Milardi[1,3], Carlo Cannistraci[2]
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1847 Diffusion MRI-based assessments of corticospinal tract integrity in stroke patients
Jord Vink[1], Sjors Heuberger[2], Eline van Lieshout[3], Anne Visser[3], Bart van der Worp[3], Rick Dijkhuizen[3]
[1]University Medical Center Utrecht, Utrecht, Nederland, [2]Utrecht University, Utrecht, Utrecht, [3]University Medical Center Utrecht, Utrecht, Utrecht

1849 Mapping Pontocerebellar Connectivity with Diffusion MRI
Paul-Noel Rousseau[1], M Mallar Chakravarty[2], Christopher Steele[1]
[1]Concordia University, Montreal, Quebec, [2]McGill University, Montreal, Quebec

1851 Variability in the genetic bases of brain white matter microstructure
Rowena Chin[1], Kevin Anderson[1], Anastasia Yendiki[2], Avram Holmes[1,3]
[1]Yale University, Department of Psychology, New Haven, CT, [2]Harvard Medical School and Massachusetts General Hospital, Charlestown, MA, [3]Yale University, Department of Psychiatry, New Haven, CT

1861 Bridging the Gap: From Neuroanatomical Literature to Probabilistic Tractography
Guillermo Gallardo[1], Demian Wassermann[2], Angela Friederici[1], Alfred Anwander[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Parietal team, INRIA Saclay Île-de-France., Paris, France

1864 White Matter Segmentation Education (WiMSE): An interactive guide to white matter segmentation
Daniel Bullock[1], Soichi Hayashi[1], Franco Pestilli[1]
[1]Department of Psychological and Brain Sciences, Indiana University, Bloomington, IN

1868 What can go wrong in clinical g-ratio weighted imaging? – The error when omitting B1+ correction
Tim Emmenegger[1,2], Gergely David[1], Isabel Ellerbrock[3], Patrick Freund[1,4,5], Siawoosh Mohammadi[2,5]
[1]Spinal Cord Injury Center Balgrist, University Hospital of Zurich, Zurich, Switzerland, [2]Department of Systems Neuroscience, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, [3]Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, [4]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, London, United Kingdom, [5]Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1872 Examining the similarity of pseudo disconnection methods to in-vivo chronic post-stroke data
Ajay Halai[1], Matthew Lambon Ralph[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, Cambridgeshire

1873 Relationship Between Brain Structural Connectivity and Balance Deficits in Individuals with TBI
Alaleh Alivar[1,2], Soha Saleh[1,2], Didier Allexandre[1,2], Michael Glassen[1], Armand Hoxha[1], Guang Yue[1,2]
[1]Kessler Foundation, West Orange, NJ, [2]Rutgers University, Newark, NJ

1876 Medial forebrain bundle structure is linked to human impulsivity
Kelly MacNiven[1], Josiah Leong[2], Brian Knutson[1]
[1]Stanford University, Stanford, CA, [2]Indiana University, Bloomington, IN

1880 White Matter Tract Atlases of the Baby Brain
Ye Wu[1], Yoonmi Hong[1], Sahar Ahmad[1], Weili Lin[1], Pew-Thian Yap[1], the UNC/UMN Baby Connectome Project Consortium[1]
[1]University of North Carolina, Chapel Hill, Chapel Hill, NC

1884 Correlation of priors-assisted Meyer's loop tractography with post-surgical visual field deficit
Dmitri Shastin[1], Sanchita Bhatia[1], Chantal Tax[1], Greg Parker[1], Stefan Schwartz[1], Khalid Hamandi[1], William Gray[1], Derek Jones[1], Maxime Chamberland[1]
[1]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom

1887 Inter-operator variability of tractography-derived measures in corticospinal tract
Richard Agajanian[1], Averi Barrett[1], Rachel Custer[1], Yin He[1], Tasfiya Islam[1], Matthew Lahey[1], Cooper Larson[1], Omeed Mahrouyan[1], Clarissa Morales[1], Jovicarole Raya[1], Nooralhoda Sadeghi[1], Nien-Chu Shih[1], Matthew Thurston[1], Amaryllis Tsiknia[1], Xin Wang[1], Kay Jann[1], Ryan Cabeen[2], Farshid Sepehrband[3]
[1]USC, Los Angeles, CA, [2]USC LONI, Los Angeles, CA, [3]University of Southern California, Los Angeles, CA

Neuroanatomy Other

1797 Prefronto-thalamic tract injury and cognitive outcome according to EVD location in stroke patients
Min Son Kim[1], Sung Ho Jang[2], Jong Hoon Kim[3], Hyeok Gyu Kwon[4]
[1]Yeungnam university medical center, Daegu, Korea, Republic of, [2]Yeungnam University medical center, Daegu, AK, [3]Yeungnam university medical center, Daegu, AK, [4]Eulji University, Gyeonggi, AK

1848* Time-of-Flight-MRA-Derived-Probabilistic-Map of Each Major Cerebral Artery
Samantha Cote[1], Jean-Francois Lepage[1], Kevin Whittingstall[2]
[1]Université de Sherbrooke, Sherbrooke, Quebec, [2]Université de Sherbrooke, Sherbrooke, QC

1860 A generative model for primate brain shapes
Katja Heuer[1], Marian Kleineberg[2], Russell Dinnage[3], Chet Sherwood[4], Ernst Schwartz[5], Georg Langs[6], Romain Valabregue[7], Mathieu Santin[7], Marc Herbin[8], Roberto Toro[9]
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1869 BrainFS: An Online System for the Analysis of Brain Volumetry
Gonzalo Rojas[1], Joaquim Montell[2], Evelyng Faure[1], José Molina-Mateo[3], Maria de la Iglesia-Vayá[2], Marcelo Gálvez[1]
[1]Clinica las Condes, Santiago, RM, [2]Join Unit FISABIO-CIPF, Valencia, Valencia, [3]Universitat Politècnica de València, Valencia, Valencia

NEUROINFORMATICS AND DATA SHARING

Brain Atlases

1888 An MSM surface registration pipeline to bridge atlases across the MNI and the FS/HCP worlds
Lindsay Lewis[1], Claude Lepage[1], Matt Glasser[2], Timothy Coalson[2], David Van Essen[2], Alan Evans[1]
[1]McGill University, Montreal, Quebec, [2]Washington University in St. Louis, St. Louis, MO

1889 An Age-Specific Atlas for Delineation of White Matter Pathways in Children Aged 6-8 Years
Arthur Spencer[1], Jonathan Brooks[1], Hollie Byrne[1], Richard Lee-Kelland[1], Ela Chakkarapani[1]
[1]University of Bristol, Bristol, UK

1890 An MRI-Derived Neuroanatomical Atlas of the Fischer 344 Rat Brain
Dana Goerzen[1], Caitlin Fowler[2], Gabriel Devenyi[2], Jurgen Germann[3], Dan Madularu[4], Mallar Chakravarty[2], Jamie Near[2]
[1]Department of Neuroscience, McGill University, Montreal, Canada, [2]Centre d'Imagerie Cérébrale, McGill University, Montreal, Canada, [3]University Health Network, Toronto, Canada, [4]Centre for Translational Neuroimaging, Northeastern University, Boston, USA

1893 The MNI-NOEL50 submillimetric whole-brain MRI template
Niels Alexander Foit[1], Benoit Caldairou[1], Vladimir Fonov[2], Fatemeh Fadaie[1], Seok-Jun Hong[1], Louis Collins[2], Andrea Bernasconi[1], Neda Bernasconi[1]
[1]Neuroimaging of Epilepsy Laboratory, McConnell Brain Imaging Center, Montreal Neurological Institute, Montreal, Quebec, [2]McConnell Brain Imaging Center, Montreal Neurological Institute, Montreal, Quebec

1899* Original to digital: microstructural and functional brain atlases in common MRI space
Rory Pijnenburg[1], Simone Dunn[1], Lianne Scholtens[1], Martijn van den Heuvel[1]
[1]VU Amsterdam, Amsterdam, Netherlands

1904 The construction of an Iranian brain MRI template
Foroogh-sadat Razavi-ghahfarokhi[1], Minoo Sisakhti[2], Seyed Amir Hossein Batouli[3]
[1]Neuroimaging and Analysis Group, Research Center for Molecular and Cellular Imaging, Tehran, Iran, Islamic Republic of, [2]Institute for Cognitive Science Studies, Tehran, Iran, Islamic Republic of, [3]Tehran University of Medical Sciences, Tehran, Iran, Islamic Republic of

1906 JuGEx – bridging the scales between gene expression and cytoarchitecture
Sebastian Bludau[1], Thomas Mühleisen[1,2,3], Peter Pieperhoff[1], Pia Berger[3], Nina Unger[3], Magdalena Wojtasik[3], Dominique Hilger[1], Sven Cichon[1,4,2], Timo Dickscheid[1], Katrin Amunts[1,3]
[1]Research Centre Jülich, Jülich, Germany, [2]University of Basel, Basel, Switzerland, [3]Heinrich-Heine-University, Düsseldorf, Germany, [4]University Hospital Basel, Basel, Switzerland

1916 Influence of the population differences on the construction of cortical surface atlases
Guoyuan Yang[1], Jelena Bozek[2], Meizhen Han[1], Jia-Hong Gao[1]
[1]Center for MRI Research, Peking University, Beijing, China, [2]Faculty of Electrical Engineering and Computing, University of Zagreb, Zagreb, Croatia

1922 Linking Multimodal Parcellation 1.0 of Human Connectome Project to MNI Coordinates
Tetsuya Yamamoto[1], Masaki Fukunaga[1], Norihiro Sadato[1]
[1]National Institute for Physiological Sciences, Okazaki, Japan

1923 Construction of Chinese anatomical connectivity-based parcellation
Meizhen Han[1], Guoyuan Yang[1], Hai Li[1], Lang Qin[1], Jia-Hong Gao[1]
[1]Center for MRI Research, Peking University, Beijing, China

1924 Validating the use of individual-level structural prior matching in neonatal functional neuroimaging
Liam Collins-Jones[1], Tomoki Arichi[2], Tanya Poppe[2], Addison Billing[1], Jiaxin Xiao[2], Sabrina Brigadoi[3], Jeremy Hebden[1], Clare Elwell[1], Robert Cooper[1]
[1]University College London, London, UK, [2]King's College London, London, UK, [3]University of Padova, Padova, Italy

1926 JuBrain Atlas with GapMaps—a full probabilistic cytoarchitectonic atlas of the human cerebral cortex
Hartmut Mohlberg[1], Katrin Amunts[1,2]
[1]Research Center Jülich, Germany, [2]C. and O. Vogt Institute for Brain Research, Heinrich-Heine-University Düsseldorf, Germany

1937* Segregation of functional territories in individual brains
Ana Luísa Pinho[1], Bertrand Thirion[2]
[1]Inria Saclay-Île-de-France, Gif-sur-Yvette, France, [2]inria, Gif sur Yvette

1943 Towards a dataset of 20 ultra-high resolution neurotransmitter receptor human atlases
Thomas Funck[1], Nicola Palomero-Gallagher[2], Konrad Wagstyl[3], Mona Omidyeganeh[1], Claude Lepage[1], Paule Toussaint[1], Alexander Thiel[4], Karl Zilles[5], Alan Evans[6]
[1]McGill University, Montreal, Quebec, [2]Forschungszentrum Jülich INM1, Jülich, Germany, [3]University College London, London, London, [4]Jewish General Hospital and McGill University, Montreal, Quebec, [5]Forschungszentrum Jülich INM1, Jülich, Jülich, [6]McGill University, Montreal, Montreal

1946 Anatomical Organization of Human Mediodorsal Thalamus and its Extra-thalamic connections
Kaixin Li[1], Lingzhong Fan[2,3,4], Wen Li[2,3,4], Weiyang Shi[2,3,4], Tianzi Jiang[2,3,4,5,6], Bo You[1]
[1]Harbin University of Science and Technology, Harbin, China, [2]Brainnetome Center, Institute of Automation, Chinese Academy of Sciences, Beijing, China, [3]National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, [4]University of Chinese Academy of Sciences, Beijing, China, [5]School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu, China, [6]The Queensland Brain Institute, University of Queensland, Brisbane, Australia

1947 An individual-specific parcellation of human cerebral cortex with subcortical references
Liang Ma[1,2,3], Lingzhong Fan[2,3,4,5], Luqi Cheng[2,6], Hantian Zhang[2,3], Tianzi Jiang[1,2,3,5,6,7]
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1948 Parcellation and Modularity of the Macaque Frontal Pole
bin he[1], Long Cao[1], Xiaoluan Xia[1], Lingzhong Fan[1], Bo You[2], Tianzi Jiang[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, Bejing, [2]Harbin University of Science and Technology, Harbin, Heilongjiang

1952 The HBP human brain atlas – a modular reference framework spanning scales and modalities
Timo Dickscheid[1], Jean-François Mangin[2], Yann Leprince[2], Dirk Pleiter[1], Thomas Lippert[1], Jan Bjaalie[3], Katrin Amunts[1]
[1]Forschungszentrum Jülich, Jülich, North Rhine-Westphalia, [2]CEA - NeuroSpin, Gif-sur-Yvette, Ile de France, [3]Institute of Basic Medical Sciences, Oslo, Norway

1953 Chimpanzee High-Resolution Minimum Deformation Average and Application To Aging and Sex Differences
Gabriel Devenyi[1,2], Chet Sherwood[3], William Hopkins[4], Armin Raznahan[5], M Mallar Chakravarty[2]
[1]Douglas University Mental Health Institute, McGill University, Verdun, QC, [2]McGill University, Montreal, QC, [3]The George Washington University, Washington, DC, [4]University of Texas MD Anderson Cancer Center, Bastrop, TX, [5]NIMH, Bethesda, MD

1955 A quantitative and connectomic atlas of a Parkinson's disease cohort at 7-Tesla
Yiming Xiao[1], Jonathan Lau[1], Ali Khan[1], Terry Peters[1]
[1]Western University, London, Ontario

1968 An Open Science Approach to Manual Neuroanatomical Labeling
Richard Rushmore[1,2,3], Kyle Sunderland[4], Andras Lasso[4], Elizabeth Rizzoni[1], Brynn Vessey[1], Marek Kubicki[5,1,3], Nikos Makris[3,1,5,2], Sylvain Bouix[5,1]
[1]Brigham and Women's Hospital, Boston, MA, [2]Boston University School of Medicine, Boston, MA, [3]Massachusetts General Hospital, Boston, MA, [4]Queens University, Kingston, Ontario, [5]Harvard Medical School, Boston, MA

1975 A multiscale probabilistic atlas of the human white matter
Yasser Alemán-Gómez[1], Alessandra Griffa[2], Jean-Christophe Houde[3], Emeline Mullier[4], Maxime Descoteaux[5], Patric Hagmann[6]
[1]Departments of Psychiatry and Radiology, Lausanne University Hospital (CHUV), Lausanne, Switzerland, [2]Geneva University Hospital and Ecole Polytechnique Federale de Lausanne (EPFL), Geneva, Switzerland, [3]Sherbrooke Connectivity Imaging Laboratory, Université de Sherbrooke, Sherbrooke, Quebec, [4]Department of Radiology, Lausanne University Hospital (CHUV) and University of Lausanne (UNIL), Lausanne, Vaud, [5]Université de Sherbrooke, Sherbooke, Quebec, [6]Department of Radiology, Lausanne University Hospital (CHUV), Lausanne, Vaud, Switzerland

1981 An online atlas collection for the human cerebellum
Jörn Diedrichsen[1], Da Zhi[1], Maedbh King[2], Carlos Hernandez-Castillo[3], Richard Ivry[2]
[1]Western University, London, Ontario, [2]University of California, Berkeley, Berkeley, CA, [3]University of Western Ontario, London, Ontario

Databasing and Data Sharing

1894 Identifying data sharing and data reuse in full-text NIMH-funded papers
Travis Riddle[1], Francisco Pereira[1], Adam Thomas[1]
[1]National Institute of Mental Health, Bethesda, MD

1895 BIDS Derivatives – Standardization of Processing Results in Brain Imaging
Christopher Markiewicz[1], Vince Calhoun[2], Erin Dickie[3], Eugene Duff[4], Elizabeth Dupre[5], Oscar Esteban[1], Franklin Feingold[1], Satrajit Ghosh[6], Yaroslav Halchenko[7], Michael Harms[8], Peer Herholz[9], Maarten Mennes[10], Martin Nørgaard[11], Robert Oostenveld[12], Cyril Pernet[13], Franco Pestilli[14], Russell Poldrack[1], Ariel Rokem[15], Robert Smith[16], Tal Yarkoni[17], Krzysztof Gorgolewski[1]
[1]Stanford University, Stanford, CA, [2]Georgia State/Georgia Tech/Emory, Atlanta, GA, [3]Centre for Addiction and Mental Health, University of Toronto, Toronto, Ontario, [4]University of Oxford, Oxford, Oxfordshire, [5]McGill University, Montreal, QC, [6]MIT, Cambridge, MA, [7]Dartmouth College, Hanover, NH, [8]Washington University in St Louis, Saint Louis, MO, [9]Montréal Neurological Institute, McGill University, Montréal, Québec, [10]Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, Netherlands, [11]Neurobiology Research Unit, University of Copenhagen, Copenhagen, Denmark, [12]Radboud University, Nijmegen, Netherlands, [13]The University of Edinburgh, Edinburgh, Scotland, [14]Indiana University, Bloomington, IN, [15]The University of Washington eScience Institute, Seattle, WA, [16]The Florey Institute of Neuroscience and Mental Health, Melbourne, Victoria, [17]University of Texas at Austin, Austin, TX

1896 Management and Quality Control of Large-Scale Neuroimaging Datasets: Developments from the BBRC
Greg Operto[1], Jordi Huguet[1], Carles Falcon[1], David Fusté[1], Jose L Molinuevo[1], Juan D Gispert[1]
[1]BarcelonaBeta Brain Research Center, Barcelona, Barcelona

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Laurent Chauvin[1], Sukesh Adiga V[1], Jose Dolz[1], Herve Lombaert[1], Matthew Toews[1]
[1]École de Technologie Supérieure, Montreal, Quebec

1898 Introducing MICs: An open dataset for Microstructure-Informed Connectomics in health and epilepsy
Jessica Royer[1], Shahin Tavakol[1], Qiongling Li[1], Alexander Lowe[2], Sara Lariviere[1], Reinder Vos de Wael[1], Casey Paquola[1], Oualid Benkarim[1], Bo-yong Park[1], Raul Rodriguez-Cruces[1], Birgit Frauscher[1], Boris Bernhardt[1]
[1]Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada, [2]UCL, London, UK

1907 A standard for the organization of quantitative MRI data: BIDS extension proposal 001
Gilles de Hollander[1], Agah Karakuzu[2], Stefan Appelhoff[3], Tibor Auer[4], Mathieu Boudreau[5], Franklin Feingold[6], Ali Khan[7], Alberto Lazari[8], Christophe Phillips[9], Nikola Stikov[2], Kirstie Whitaker[10]
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1908 Fully Synthetic Neuroimaging Data for Replication and Exploration
Kenneth Vaden[1], Mulugeta Gebregziabher[1], Mark Eckert[1]
[1]Medical University of South Carolina, Charleston, SC

1909 Comparison of MRI Defacing Software Across Multiple Cohorts
Athena Theyers[1], Stephen Arnott[1], Mojdeh Zamyadi[1], Mark O'Reilly[2], Robert Bartha[3], Sean Symons[4], Glenda MacQueen[5], Stefanie Hassel[6], Jason Lerch[7], Evdokia Anagnostou[8], Stephen Strother[1]
[1]Rotman Research Institute, Toronto, Ontario, [2]Ontario Brain Institute, Toronto, Ontario, [3]Department of Medical Biophysics, Robarts Research Institute, Western University, London, Ontario, [4]Sunnybrook Health Sciences Centre, Toronto, Ontario, [5]The Mathison Centre for Mental Health Research & Education, Calgary, Alberta, [6]Department of Psychiatry, Cumming School of Medicine, Calgary, Alberta, [7]Mouse Imaging Centre, Hospital for Sick Children, Toronto, Ontario, [8]Holland Bloorview Kids Rehabilitation Hospital, Toronto, Ontario

1912 Towards personalized connectome models of drug-resistant childhood epilepsy
Sara Lariviere[1], Danny Kim[2], Andrea Bernasconi[1], Mary Connolly[2], Dewi Schrader[2], Boris Bernhardt[1]
[1]McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, QC, [2]BC Children's Hospital, Department of Pediatrics, University of British Columbia, Vancouver, BC

1914 The DataLad Handbook: A user-focused and workflow-based addition to standard software documentation

Adina Wagner[1], Laura Waite[1], Alexander Waite[1], Niels Reuter[1,2], Benjamin Poldrack[1], Jean-Baptiste Poline[3], Tobias Kadelka[1], Christopher Markiewicz[4], Peter Vavra[5], Lya Paas Oliveros[1,2], Peer Herholz[6], Lisa Mochalski[1,2], Lisa Wiersch[1], Nevena Kraljevic[1,2], Marisa Heckner[1,2], Pattarawat Chormai[7], Yaroslav Halchenko[8], Michael Hanke[1,2]
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1919 C-BIGR Clinical-Biological Imaging and Genetic Repository: MNI platform to accelerate open science

Krishna Chatpar[1,2,3], Henri Rabalais[1], Samir Das[1], Rida Abou-Haidar[1], Melanie Legault[1], Zaliqa Rosli[1], Marie-Noëlle Boivin[2], Mahdieh Tabatabaei[2], Sonia Lai Wing Sun[4], Christine Rogers[1], Jason Karamchandani[2,5], Alan Evans[1]
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1921 Brain/MINDS Beyond project – Harmonized Brain MRI Protocols and Preprocessing in Travelling Subjects

Shinsuke Koike[1], Tomoyuki Okada[2], Masaki Fukunaga[3], Hiroki Togo[4], Atsushi Miyazaki[5], Toshihiko Aso[6], Takayuki Ose[6], Akiko Uematsu[1], Michiko Asano[1], Kentaro Morita[1], Naohiro Okada[1], Tetsuya Matsuda[5], Norihiro Sadato[3], Yasumasa Okamoto[7], Saori Tanaka[8], Takashi Hanakawa[4], Kiyoto Kasai[1], Mitsuo Kawato[9], Matthew Glasser[10], Takuya Hayashi[6]
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1931 Building a Rare Disease Database for a Natural History Study of 4H Leukodystrophy

Aaron Spahr[1], Zaliqa Rosli[2], Melanie Legault[2], Cecile Madjar[2], Marie-Lou St-Jean[1], Cassandra Lucia[1], Samir Das[3], Genevieve Bernard[1]
[1]Department of Neurology and Neurosurgery, Pediatrics, and Human Genetics, McGill University, Montreal, Quebec, [2]McGill Centre for Integrative Neuroscience, Montreal, Quebec, [3]Department of Neurology and Neurosurgery, Pediatrics, and Human Genetics, McGill University, Montreal, Québec

1936 R-BIDS, a DICOM conversion and BIDS data structuring workflow developed in R

Niklas Wulms[1], Sven Eppe[2], Benedikt Sundermann[3], Klaus Berger[1], Heike Minnerup[1]
[1]Institute of Epidemiology and Social Medicine, Münster, NRW, [2]Landeskrebsregister NRW gGmbH, Bochum, NRW, [3]Institute of Clinical Radiology, University Hospital Münster, Münster, NRW

1938 Boosting Multi-site fMRI Analysis Using Privacy-preserving Federated Learning

Xiaoxiao Li[1], Yufeng Gu[2], Nicha Dvornek[1], James Duncan[1]
[1]Yale University, New Haven, CT, [2]Zhejiang University, Hangzhou, Zhejiang

1939 The Courtois project on neuronal modelling – first data release

Julie Boyle[1], Basile Pinsard[2], Amal Boukhdhir[3], Sylvie Belleville[2,4], Simona Brambatti[2,4], Jen-I Chen[2], Julien Cohen-Adad[5], André Cyr[2], Adrian Fuente[2,4], Pierre Rainville[6,7], Pierre Bellec[8,4]
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1940 MNE-BIDS: Standardizing archiving and analysis of electrophysiology data with MNE

Stefan Appelhoff[1], Matthew Sanderson[2], Teon Brooks[3], Marijn Vliet[4], Romain Quentin[5], Chris Holdgraf[6], Maximilien Chaumon[7], Ezequiel Mikulan[8], Kambiz Tavabi[9], Richard Höchenberger[10], Dominik Welke[11], Clemens Brunner[12], Alexander Rockhill[13], Eric Larson[9], Alexandre Gramfort[14], Mainak Jas[15]
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1941 A system for automatic BIDS conversion from the Siemens console in Flywheel

Timothy Verstynen[1], John Pyles[1], Can Akgun[2], Thad Brown[2], Kaleb Fischer[2], Jeff Yager[2]
[1]Carnegie Mellon University, Pittsburgh, PA, [2]Flywheel Exchange, LLC, Minneapolis, MN

1942 ADMetaboMine Database: published metabolite measures in brain and biofluids in Alzheimer's disease

Anuradha Surendra[1], Sabrina Loudjani[2], Miroslava Cuperlovic-Culf[1], AmanPreet Badhwar[2]
[1]National Research Council Canada, Ottawa, Ontario, [2]CRIUGM, University of Montreal, Montreal, Quebec

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Roopa Pai[1,2,3], Paul Triebkorn[1,2], Petra Ritter[1,2,3]
[1]Charité – Universitätsmedizin Berlin, Berlin, Germany, [2]Berlin Institute of Health, Berlin, Germany, [3]Bernstein Center for Computational Neuroscience, Berlin, Germany

1950 Scalable Bayesian Model for Harmonising Neuroimaging Features in Multi-site Longitudinal Studies

Habib Ganjgahi[1], Thomas Nichols[1]
[1]University of Oxford, Oxford, United Kingdom

1954 IBC dataset extension, second release of high-resolution fMRI data for cognitive mapping

Ana Luísa Pinho[1], Juan Jesús Torre[2], Bertrand Thirion[3]
[1]Inria Saclay-Île-de-France, Gif-sur-Yvette, France, [2]Inria Saclay-Île-de-France, Gif-sur-Yvette, Essone, [3]inria, Gif sur Yvette

1956* Physiopy/phys2bids: BIDS formatting of physiological recordings
The phys2bids contributors Physiopy[1], Daniel Alcalá[2], Apoorva Ayyagari[3], Molly Bright[3], César Caballero-Gaudes[4], Vicente Ferrer Gallardo[5], Soichi Hayashi[6], Ross Markello[7], Stefano Moia[8], Rachael Stickland[3], Eneko Uruñuela[4], Kristina Zvolanek[3]
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1966* EzBIDS: The open cloud service for automated, validated DICOM to BIDS conversion
Daniel Levitas[1], Soichi Hayashi[1], Franco Pestilli[1]
[1]Department of Psychological and Brain Sciences, Indiana University, Bloomington, IN

1973 NIDM-Terms: A Community-Driven Controlled Vocabulary for Brain Initiative Imaging Experiments
David Keator[1], Karl Helmer[2], Theo Van Erp[3], Nazek Queder[1], Jean-Baptiste Poline[4], Satrajit Ghosh[5], I. Burak Ozyurt[6], Jeffrey Grethe[7]
[1]University of California, Irvine, Irvine, CA, [2]Massachusetts General Hospital Harvard University, Boston, MA, [3]University of California Irvine, Irvine, CA, [4]McGill University, Montreal, QC, [5]MIT, Cambridge, MA, [6]University of California, San Diego, San Diego, CA, [7]UCSD, San Diego, CA

1980 Probabilistic Programming for Bridging the Gap Between Cognitive Science and Statistical Modeling
Valentin Iovene[1], Demian Wassermann[1]
[1]Université Paris-Saclay, Inria, CEA, Palaiseau, Ile-de-France

1984 OmniiBIDS: Automatic Conversion of Structured NIfTI Datasets to BIDS
Alexandre Hutton[1], Jean-Baptiste Poline[2]
[1]McGill University, Montreal, Quebec, [2]McGill University, Montréal, Quebec

1985 A Multidimensional Imaging and Neurocognitive Dataset for the Assessment of Dementia
Dan Peterson[1], Jason Webster[1], Annika Noreen[1], Franklin Faust[1], Robin Stillwell[1], Christina Caso[1], Kimiko Domoto-Reilly[1], Kristoffer Rhoads[1], Carolyn Parsey[1], Michael Persenaire[1], Tung Le[1], Thomas Grabowski[1]
[1]University of Washington, Seattle, WA

Workflows

1891 A clinical research software prototype with diffusion MRI tractography for glioma surgery planning
Daniel Krahulec[1], Frank Thiele[2], Ahmed Radwan[3], Fabian Wenzel[4], Stefan Sunaert[3], Maarten Versluis[1], Kim van de Ven[1], Marcel Breeuwer[1,5]
[1]MR R&D Clinical Science, Philips Healthcare, Best, The Netherlands, [2]Philips GmbH Innovative Technologies, Aachen, Germany, [3]Department of Imaging & Pathology, Translational MRI, KU Leuven, Leuven, Belgium, [4]Philips GmbH Innovative Technologies, Hamburg, Germany, [5]Department of Biomedical Engineering – Medical Image Analysis, Eindhoven University of Technology, Eindhoven, The Netherlands

1892* Connectome Mapper 3: a software pipeline for multi-scale connectome mapping of multimodal MR data
Sebastien Tourbier[1], Yasser Alemàn-Gòmez[1], Emeline Mullier[1], Alessandra Griffa[2], Meritxell Bach Cuadra[3], Patric Hagmann[1]
[1]Connectomics Lab, Centre Hospitalier Universitaire Vaudois (CHUV) and University of Lausanne (UNIL), Lausanne, Vaud, [2]Medical Image Processing Lab (MIPLAB), Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Vaud, [3]Centre D'Imagerie BioMédicale (CIBM), University of Lausanne (UNIL), Lausanne, Vaud

1900* Nighres: a python toolbox for high-resolution neuroimaging
Pierre-Louis Bazin[1], Julia Huntenburg[2], Julia Huck[3], Leevi Kerkela[4], Hoang Dung Do[3], Tristan Glatard[3], Christopher Steele[3]
[1]Universiteit van Amsterdam, Amsterdam, North Holland, [2]Systems Neuroscience Lab, Champalimaud Research, Lisbon, [3]Concordia University, Montreal, Quebec, [4]UCL Great Ormond Street Institute of Child Health, University College London, London

1901 BrainSpace: a toolbox for the analysis of macroscale gradients in neuroimaging and connectomics data
Reinder Vos de Wael[1], Oualid Benkarim[1], Casey Paquola[1], Sara Lariviere[1], Jessica Royer[1], Shahin Tavakol[1], Ting Xu[2], Seok-Jun Hong[2], Georg Langs[3], Sofie Valk[4], Bratislav Misic[1], Michael Milham[2], Daniel Margulies[5], Jonathan Smallwood[6], Boris Bernhardt[1]
[1]McGill University, Montreal, Quebec, [2]The Child Mind Institute, New York, NY, [3]Medical University of Vienna, Vienna, Vienna, [4]Heinrich Heine University, Düsseldorf, North Rhine-Westphalia, [5]CNRS, Paris, Ile de France, [6]University of York, York, North Yorkshire

1910* BrainSuite Diffusion Pipeline (BDP): Processing tools for diffusion-MRI
Divya Varadarajan[1], Chitresh Bhushan[2], Clio Gonzalez Zacarias[3], Soyoung Choi[3], Yijun Liu[3], Anand Joshi[3], David Shattuck[4], Justin Haldar[3], Richard Leahy[3]
[1]Athinoula A. Martinos Center for Biomedical Imaging, Harvard, Boston, MA, [2]General Electric Research, Niskayuna, NY, [3]University of Southern California, Los Angeles, CA, [4]University of California, Los Angeles, Los Angeles, CA

1911 Variability in the analysis of a single functional neuroimaging dataset by many teams
Rotem Botvinik-Nezer[1,2], Felix Holzmeister[3], Colin Camerer[4], Anna Dreber[5,3], Jürgen Huber[3], Magnus Johannesson[5], Michael Kirchler[3], Thomas Nichols[6], Russell Poldrack[7], Tom Schonberg[1]
[1]Tel Aviv University, Tel Aviv, Israel, [2]Dartmouth College, Hanover, NH, USA, [3]University of Innsbruck, Innsbruck, Austria, [4]California Institute of Technology, Pasadena, CA, USA, [5]Stockholm School of Economics, Stockholm, Sweden, [6]University of Oxford, Oxford, United Kingdom, [7]Stanford University, Stanford, CA, USA

1913* DPABISurf V1.3: An Updated Surface-Based Resting-State fMRI Data Analysis Toolbox
Chao-Gan Yan[1], Xin-Di Wang[2], Bin Lu[3], Zhi-Kai Chang[3]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]McGill Centre for Integrative Neuroscience, Montreal Neurological Institute, McGill University, Montréal, QC, [3]Institute of Psychology, Chinese Academy of Sciences, Beijing, Beijing

1918* Framework for performing multi-subject analysis in electrophysiology within the BIDS format
Aude Jegou[1], Samuel Medina Villalon[1,2], Bruno Colombet[1], Aurélie Ponz[1], Anthony Boyer[3], Fabrice Bartolomei[2,1], Olivier David[3,1], Nicolas Roehri[1], Christian Bénar[1]
[1]Aix Marseille University, Inserm, Institut de Neurosciences des Systèmes, Marseille, France, [2]APHM, Timone Hospital, Clinical Neurophysiology, Marseille, France, [3]Grenoble Alpes University, Inserm, U1216, CHU Grenoble Alpes, Grenoble Institut Neurosciences, Grenoble, France

1920* Clinica
Alexandre Routier[1], Arnaud Marcoux[1], Mauricio Diaz Melo[2], Jorge Samper-González[1], Adam Wild[1], Alexis Guyot[1], Junhao Wen[1], Elina Thibeau-Sutre[1], Simona Bottani[1], Stanley Durrleman[1], Ninon Burgos[1], Olivier Colliot[1]
[1]ARAMIS Lab, ICM, Inserm U1127, CNRS UMR 7225, Sorbonne University, Inria, Paris, France, [2]Inria Paris, SED, Paris, France

1925 A model implementation of a scalable data storage for scientific computing with DataLad
Benjamin Poldrack[1], Adina Wagner[1], Alexander Waite[1], Laura Waite[1], Michael Hanke[1,2]
[1]Institute of Neuroscience and Medicine: Brain and Behavior (INM-7), Research Center Jülich, Jülich, Germany, [2]Institute of Systems Neuroscience, Heinrich Heine University, Düsseldorf, Germany

1927* Methodological variability and vibration effects in transcriptomic processing pipelines
Ross Markello[1], Bratislav Misic[2]
[1]McGill University, Montreal, Quebec, [2]McGill University, Montreal, QC

1929 The rsHRF toolbox (v2.2): Additional features and analyses, and extended user documentation
Sofie Van Den Bossche[1], Guorong Wu[2], Nigel Colenbier[1], Daniele Marinazzo[1]
[1]Department of Data Analysis, Faculty of Psychology and Pedagogical Sciences, Ghent University, Ghent, Belgium, [2]Key Laboratory of Cognition and Personality, Faculty of Psychology, Southwest University, Chongqing, China

1930 Development, implementation, and QA/QC of a reproducible fMRI analysis pipeline for the DMCC project
Joset Etzel[1], Mitch Jeffers[1], Nicholas Bloom[1], Todd Braver[1]
[1]Washington University in St. Louis, Saint Louis, MO

1933 New Open Science features in the CBRAIN Platform
Natacha Beck[1], Pierre Rioux[2], Gregory Kiar[2], Shawn Brown[3], Candice Czech[1], Serge Boroday[1], Xavier Lecours-Boucher[1], Darcy Quesnel[1], Christine Rogers[4], Najmeh Khalili-Mahani[1], Reza Adalat[1], Tristan Glatard[5], Samir Das[6], Alan Evans[7]
[1]McGill University, Montréal, Québec, [2]McGill University, Montreal, Quebec, [3]Pittsburgh Super Computing Centre, Pittsburgh, PA, [4]Montreal Neurological Institute, McGill University, Montreal, QC, [5]Concordia University, Montreal, Quebec, [6]McGill, Montreal, Québec, [7]McGill University, Montreal, Montreal

1945 Exploring Self-Generated Thought During Resting-State Imaging with Natural Language Processing
Huixian Li[1], Bin Lu[2], Xiao Chen[2], Francisco Castellanos[3], Chao-Gan Yan[4]
[1]Institute of Psychology, Beijing, Beijing, [2]Institute of Psychology, Chinese Academy of Sciences, Beijing, Beijing, [3]Nathan Kline Institute for Psychiatric Research, New York, NY, [4]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

1957* Semi-Automatic SEEG Localization and Interactive Neuroimage Visualization in Epilepsy Patients
Adam Li[1], Chester Huynh[1], Christopher Coogan[2], Joon Kang[2], Nathan Crone[2], Zachary Fitzgerald[3], Jorge Gonzalez-Martinez[4], Sridevi Sarma[1]
[1]Johns Hopkins University, Baltimore, MD, [2]Johns Hopkins Hospital, Baltimore, MD, [3]Cleveland Clinic, Cleveland, OH, [4]University of Pittsburg Medical Center, Pittsburg, PA

1960 NiPreps: enabling the division of labor in neuroimaging beyond fMRIPrep
Oscar Esteban[1], Jessey Wright[1], Christopher Markiewicz[1], William Hedley Thompson[2], Mathias Goncalves[3], Rastko Ciric[1], Ross Blair[1], Franklin Feingold[1], Ariel Rokem[4], Satrajit Ghosh[5], Russell Poldrack[1]
[1]Stanford University, Stanford, CA, [2]Karolinska Institutet, Stockholm, CA, [3]Stanford University, Boston, MA, [4]The University of Washington eScience Institute, Seattle, WA, [5]MIT, Cambridge, MA

1961* FMRIPrep: extending the scanner to produce ready-for-analysis fMRI data
Mathias Goncalves[1], Christopher Markiewicz[1], Karolina Finc[2], Russell Poldrack[1], Oscar Esteban[1]
[1]Stanford University, Stanford, CA, [2]Nicolaus Copernicus University in Toruń, Toruń, Kuyavian-Pomeranian

1962 ChRIS: An Opensource Software Platform for Containerized Neuro-Imaging Research
Rudolph Pienaar[1,2], Jorge Bernal[1], Gideon Pinto[1], P. Ellen Grant[1,2]
[1]Boston Children's Hospital, Boston, MA, [2]Harvard Medical School, Boston, MA

1963 The ABCD Brain Analysis Tool
Philip Nguyen[1], Alexandra Potter[1], Hugh Garavan[2], Bader Chaarani[1]
[1]University of Vermont, Burlington, VT, [2]The University of Vermont, Burlington, VT

1964 An Automated Data Management Infrastructure for Multi-site Clinical MRI Studies
Gabrielle Herman[1], Dawn Smith[1], Erin Dickie[1,2], Michael Joseph[1], Jerrold Jeyachandra[1], Kevin Witczak[1], Navona Calarco[1], Tom Wright[1], Joseph Viviano[1], Jon Pipitone[1], Mathuvanthi Manogaran[1], Dawson Overton[1], Aristotle Voineskos[1,2]
[1]Centre for Addiction and Mental Health, Toronto, Ontario, [2]University of Toronto, Toronto, Ontario

1965* Cloud-Oriented NeuroImaging with BrainForge: Auto Group ICA, Managed Study Integration, and Beyond
Bradley Baker[1], Eric Verner[1], Vince Calhoun[2], Helen Petropoulos[1], Rajikha Raja[1], Jill Fries[1], Sandeep Panta[3], Ravi Kalyanam[1], Margaret King[3]
[1]Tri-Institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), Atlanta, GA, [2]Georgia State/Georgia Tech/Emory, Atlanta, GA, [3]Mind Research Network, Albuquerque, NM

1967* PyNets: Reproducible Ensemble Graph Analysis of Functional and Structural Connectomes
Derek Pisner[1], Ryan Hammonds[2]
[1]University of Texas at Austin, Austin, TX, [2]University of Texas at Dallas, Dallas, TX

1969 Niflows: making neuroimaging tools and analyses FAIR
Dorota Jarecka[1], Christopher Markiewicz[2], Mathias Goncalves[2], Jakub Kaczmarzyk[3], John Lee[4], Satrajit Ghosh[1]
[1]MIT, Cambridge, MA, [2]Stanford University, Stanford, CA, [3]Stony Brook University School of Medicine, Stony Brook, NY, [4]National Insitute of Mental Health, Bethesda, MD

1977 A Unified, End-to-End Pipeline Solution for Human and Nonhuman Functional Connectomics
Hecheng Jin[1], Steve Giavasis[1], Xinhui Li[1], Anibal Sólon[2], Lei Ai[1], Alexandre Franco[1,3], Xindi Wang[4], Alessandro Gozzi[5], Marco Pagani[5], Andrew Fox[6], Adam Messinger[7], Shella Keilholz[8], Brian Russ[3], Ting Xu[1], Cameron Craddock[9], Michael Milham[1]
[1]Child Mind Institute, New York, NY, [2]University of Texas at Austin, Austin, TX, [3]Nathan Kline Institute, Orangeburg, NY, [4]Montreal Neurological Institute (MNI), Montreal, Quebec, [5]Istituto Italiano di Tecnologia, Rovereto, Italy, [6]California National Primate Research Center, University of California, Davis, Davis, CA, [7]NIMH, Bethesda, MD, [8]Emory University / Georgia Institute of Technology, Atlanta, GA, [9]The University of Texas at Austin Dell Medical School, Austin, TX

1979 Evaluating and Improving Cross-Pipeline Reproducibility in Functional Connectomics: A Case Study
Xinhui Li[1], Steve Giavasis[1], Hecheng Jin[1], Lei Ai[1], Anibal Sólon[2], Azeez Adebimpe[3], Alexandre Franco[1], Russell Poldrack[4], Joshua Vogelstein[5], Ting Xu[1], Theodore Satterthwaite[3], Cameron Craddock[6], Michael Milham[1]
[1]Child Mind Institute, New York, NY, [2]University of Texas at Austin, Austin, TX, [3]University of Pennsylvania, Philadelphia, PA, [4]Stanford University, Stanford, CA, [5]Johns Hopkins University, Baltimore, MD, [6]The University of Texas at Austin Dell Medical School, Austin, TX

Informatics Other

1902 NeuroLibre : A cloud-based and curated repository for Jupyter Notebooks in neuroscience
Loic Tetrel[1], Mathieu Boudreau[2], Elizabeth Dupre[3], Agah Karakuzu[2], Félix-Antoine Fortin[4], Jean-Baptiste Poline[3], Samir Das[3], Pierre Bellec[1], Nikola Stikov[2]
[1]Centre de recherche de l'institut de gériatrie de Montréal, Montreal, QC, [2]Polytechnique Montreal, Montreal, QC, [3]McGill University, Montreal, QC, [4]Calcul Quebec, Montreal, QC

1903 Analytic variability in fMRI: Multivariate and meta-analytic approaches to the problem and solution
Kendra Oudyk[1], Alexandre Pérez[1], Peer Herholz[1], Jean-Baptiste Poline[1]
[1]Montréal Neurological Institute, McGill University, Montréal, Québec

1905 Data Visualization for Query by Image Using Modern Javascript
David Olsen[1], Ciprian Ionita[1], Robert Miletich[1], David Wack[1]
[1]University at Buffalo, SUNY, Buffalo, NY

1915 GAMBA: an integrative platform for annotation of gene transcription-neuroimaging associations
Yongbin Wei[1], Siemon de Lange[1], Rory Pijnenburg[1], Dirk Jan Ardesch[1], Lianne Scholtens[1], Danielle Posthuma[1], Martijn van den Heuvel[1]
[1]VU Amsterdam, Amsterdam, the Netherlands

1917 EEG-based brain age gap estimation and its relation to pathology detection
Lukas Gemein[1], Robin Schirrmeister[2], Tonio Ball[3]
[1]Neuromedical AI Lab, University Medical Center Freiburg, Freiburg, Baden-Württemberg, [2]University Freiburg, Freiburg, Baden-Württemberg, [3]University Medical Center Freiburg, Freiburg, Baden-Württemberg

1928* Mapping Cross-Scale Brain Data Using Inter-Atlas Connectivity Transformation (IntACT)
Gleb Bezgin[1], Randy McIntosh[2], Alan Evans[3]
[1]Montreal Neurological Institute, Montreal, Quebec, [2]University of Toronto, Toronto, Ontario, [3]McGill University, Montreal, Montreal

1932* NiMARE: A Neuroimaging Meta-Analysis Research Environment
Taylor Salo[1], Tal Yarkoni[2], Katherine Bottenhorn[1], Thomas Nichols[3], Krzysztof Gorgolewski[4], Michael Riedel[1], James Kent[5], Enrico Glerean[6], Murat Bilgel[7], Jessey Wright[8], Puck Reeders[1], Dylan Nielson[9], Julio Yanes[10], Alexandre Pérez[11], Matthew Sutherland[1], Angela Laird[1]
[1]Florida International University, Miami, FL, [2]University of Texas at Austin, Austin, TX, [3]University of Oxford, Oxford, United Kingdom, [4]Google, Mountain View, CA, [5]University of Iowa, Iowa City, IA, [6]Aalto University, Espoo, Espoo, Finland, [7]National Institute on Aging, Bethesda, MD, [8]Stanford University, Stanford, CA, [9]NIMH/NIH, Bethesda, MD, [10]Auburn University, Auburn, AL, [11]McGill University, Montreal, Quebec

1934 Corpus Callosum length and area measurements, an open source software for ultrasound and MR images
Elisenda Bonet-Carne[1,2], Mara Dominguez[3], Elena Monterde[1], Miriam Pérez Cruz[1], Elisenda Eixarch[1,2,4], Eduard Gratacos[1,2,4]
[1]BCNatal Fetal Medicine Research Center (Hospital Clínic and Hospital Sant Joan de Déu), Barcelona, Spain, [2]Institut d'Investigacions Biomediques August Pi i Sunyer (IDIBAPS), Barcelona, Spain, [3]Transmural Biotech S.L., Barcelona, Spain, [4]Center for Biomedical Research on Rare Diseases (CIBER-ER), Madrid, Spain

1935 AFIDs Validator: Web App for Quality Control of Anatomical Fiducials and Teaching Neuroanatomy
Patrick Park[1], Jason Kai[1], Tristan Kuehn[1], Olivia Walton Stanley[1], Greydon Gilmore[1], Jak Loree-Spacek[2], Geetika Gupta[1], Kayla Ferko[1], Farah Mushtaha[1], Terry Peters[1], Ali Khan[1,3], Jonathan Lau[1,3]
[1]Western University, London, Ontario, Canada, [2]University of Calgary, Calgary, Alberta, Canada, [3]Co-senior author, London, Ontario, Canada

1944* NS+: A new meta-analysis tool to extend the utility of NeuroSynth
Meng Du[1], Matthew Lieberman[1]
[1]University of California, Los Angeles, Los Angeles, CA

1951 NIH Funded NITRC's Triad of Services: Software, Data, Compute (Come visit us in Booth 26)
Nina Preuss[1], David Kennedy[2], Christian Haselgrove[3]
[1]Preuss Enterprises, Green Cove Springs, FL, [2]University of Massachusetts Medical School, Boston, MA, [3]University of Massachusetts, Worchester, Worchester, MA

1958* MNI SISCOM: An Open-Source Tool for Subtraction Ictal Single-photon emission CT Coregistered to MRI
Jeremy Moreau[1], Christine Saint-Martin[2], Sylvain Baillet[3], Roy Dudley[2]
[1]Montreal Neurological Institute / Montreal Children's Hospital, McGill University, Montreal, Canada, [2]Montreal Children's Hospital, McGill University, Montreal, Canada, [3]Montreal Neurological Institute, McGill University, Montreal, Canada

1959* Neuroscout: a web-based platform for flexible re-analysis of naturalistic fMRI datasets
Alejandro de la Vega[1], Ross Blair[2], Christopher Markiewicz[2], Roberta Rocca[1], Michael Hanke[3], Tal Yarkoni[1]
[1]University of Texas at Austin, Austin, TX, [2]Stanford University, Stanford, CA, [3]Institute of Neuroscience and Medicine (INM-7: Brain and Behaviour), Research Center Jülich, Jülich, Germany

1970 The BigBrain Project web platform as a pedagogical tool: Teaching and learning strategies
Paule Toussaint[1], Derek Lo[1], Claude Lepage[1], Lindsay Lewis[1], Susanne Wenzel[2], Timo Dickscheid[3], Katrin Amunts[4], Alan Evans[5]
[1]McGill University, Montreal, Quebec, [2]Forschungszentrum Jülich, Jülich, [3]Forschungszentrum Jülich, Jülich, Germany, [4]Research Centre Jülich, Jülich, North-Rhine Westphalia, [5]McGill University, Montreal, Montreal

1971* **Nilearn and Nistats: Machine learning and statistics for fMRI in Python**
Jérôme Dockès[1], Kshitij Chawla[2], Alexandre Abraham[3], Thomas Bazeille[4], Moritz Boos[5], Salma Bougacha[6], Danilo Bzdok[7], Jerome-Alexis Chevalier[8], Kamalaker Dadi[9], Gilles de Hollander[10], Céline Delettre[11], Elizabeth DuPre[7], Daniel Gale[12], Krzysztof Gorgolewski[13], Alexandre Gramfort[14], Antoine Grigis[15], Roberto Guidotti[16], Ryan Hammonds[17], Andrés Hoyos-Idrobo[18], Julia Huntenburg[19], Gregory Kiar[7], Eric Larson[20], Guillaume Lemaitre[21], Franziskus Liem[22], Christopher Markiewicz[23], Tuan-Binh Nguyen[8], Ana Luísa Pinho[24], Derek Pisner[25], Mehdi Rahim[26], Paula Sanz-Leon[27], Sylvain Takerkart[28], Bertrand Thirion[29], Jacob Vogel[30], Johannes Wiesner[31], Gaël Varoquaux[32]
[1]INRIA, Palaiseau, Saclay, [2]INRIA Saclay, Palaiseau, Ile de France, [3]Dataiku, Bazemont, France, [4]INRIA-Saclay, Palaiseau, Ile de France, [5]University of Oldenburg, Oldenburg, Niedersachsen, [6]École supérieure d›ingénieurs Léonard-de-Vinci, Courbevoie, Courbevoie, [7]McGill University, Montreal, Quebec, [8]Inria Saclay Ile-de-France, Palaiseau, Ile-de-France, [9]INRIA, Paris, Ile de France, [10]University of Zurich, Zurich, Switzerland, Zurich, Switzerland, [11]Institut Pasteur, Paris, Ile de France, [12]Queen's University, Kingston, Ontario, [13]Google, Mountain View, CA, [14]INRIA, Paris, n/a, [15]Neurospin, CEA, Gif-sur-Yvette, france, [16]University "G. D'Annunzio" of Chieti-Pescara, Chieti, CH, [17]University of Texas at Dallas, Dallas, TX, [18]Rakuten Institute of Technology, Paris, Ile de France, [19]Champalimaud Research, Lisbon, Portugal, [20]University of Washington, Seattle, WA, [21]Inria, Palaiseau, Ile-de-France, [22]University of Zurich, Zurich, Zurich, [23]Stanford University, Stanford, CA, [24]Inria Saclay-Île-de-France, Gif-sur-Yvette, France, [25]University of Texas at Austin, Austin, TX, [26]Air Liquide, Les Loges en Josas, Yvelines, [27]QIMR Berghofer, Brisbane, Australia, [28]CNRS - Aix Marseille Université, Marseille, France, [29]inria, Gif sur Yvette, [30]McGill University, Montreal, QC, [31]Uniklinik Köln, Köln, Cologne, [32]INRIA, Saclay, Ile de France

1972 **A guide for using neuroimaging meta-analysis techniques and their variability.**
Alexandre Pérez[1], Kendra Oudyk[1], Elizabeth Dupre[1], Taylor Salo[2], Angela Laird[2], Jean-Baptiste Poline[1]
[1]McGill University, Montreal, QC, [2]Florida International University, Miami, FL

1974 **Constructing a Community-Driven, Structured Vocabulary for Describing Neuroscience Experiments**
Karl Helmer[1], Satrajit Ghosh[2], Jeffrey Grethe[3], Camille Maumet[4], I. Burak Ozyurt[5], Jean-Baptiste Poline[6], Theo Van Erp[7], David Keator[8]
[1]Massachusetts General Hospital Harvard University, Charlestown, MA, [2]MIT, Cambridge, MA, [3]UCSD, San Diego, CA, [4]Inria, Univ Rennes, CNRS, Inserm, Rennes, France, [5]University of California, San Diego, San Diego, CA, [6]McGill University, Montreal, QC, [7]University of California Irvine, Irvine, CA, [8]University of California, Irvine, Irvine, CA

1976 **Re-Executability Assessment of the Recent Autism Literature**
David Kennedy[1], Christian Haselgrove[2], Steve Hodge[1], Leah Honor[1], Jean Frazier[1]
[1]University of Massachusetts Medical School, Worcester, MA, [2]University of Massachusetts, Worchester, Worchester, MA

1978 **Fmralign-tutorials: A series of online tutorials for introducing functional alignment**
Elizabeth DuPre[1], Jean-Baptiste Poline[2]
[1]McGill University, Montreal, Quebec, [2]McGill University, Montreal, QC

1982 **Visualization of Very Large Volumetric Images in Virtual Reality**
David Shattuck[1]
[1]UCLA, Los Angeles, CA

1983 **The NeuroHub project : vision, components and timeline**
Xavier Lecours-Boucher[1], Shawn Brown[2], Serge Boroday[1], Samir Das[3], Alexandre Hutton[4], Giulia Ippoliti[4], Diana Le[4], Melanie Legault[5], Emmet O'Brien[4], Liam Ocallaghan[4], Darcy Quesnel[1], Pierre Rioux[4], Jennifer Tremblay[4], Ksenia Zaytseva[4], Jean-Baptiste Poline[6]
[1]McGill University, Montréal, Québec, [2]Pittsburgh Super Computing Centre, Pittsburgh, PA, [3]McGill, Montreal, Québec, [4]McGill University, Montreal, Quebec, [5]McGill Centre for Integrative Neuroscience, Montreal, Quebec, [6]McGill University, Montreal, QC

NOVEL IMAGING ACQUISITION METHODS

Anatomical MRI

1994 **Everybody Moves: Quantifying Sharpness in Motion Corrected T1-Maps at 7T**
Pierre-Louis Bazin[1], Hannah Nijsse[2], Anneke Alkemade[1], Wietske van der Zwaag[3], Frans Vos[2], Birte Forstmann[1], Matthan Caan[4]
[1]Integrative Model-based Cognitive Neuroscience research unit, Universiteit van Amsterdam, Amsterdam, Netherlands, [2]Department of Imaging Physics, Delft University of Technology, Delft, Netherlands, [3]Spinoza Centre for Neuroimaging, Amsterdam, Netherlands, [4]Department of Biomedical Engineering & Physics, Amsterdam UMC, Amsterdam, Netherlands

1996 **Childhood trauma, schizotypy and subcortical grey matter volume: An ENIGMA mega-analysis**
Yann Quidé[1,2], Emiliana Tonini[1,2], Dominik Grotegerd[3], Udo Dannlowski[3], Tilo Kircher[4], Axel Krug[4], Igor Nenadic[4], Tina Meller[4], Bernhard Baune[3], Pamela DeRosse[5], Ashley Moyett[5], Lukasz Smigielski[6], Wulf Rössler[6], Mathilde Antoniades[7], Theo Van Erp[8], Paul Thompson[9], André Aleman[10], Gemma Modinos[11], Melissa Green[1,2]
[1]School of Psychiatry, UNSW Sydney, Sydney, New South Wales, Australia, [2]Neuroscience Research Australia, Randwick, New South Wales, Australia, [3]University of Münster, Münster, North Rhine-Westphalia, [4]University of Marburg, Marburg, Marburg-Biedenkopf, [5]Zucker Hillside Hospital, Glen Oaks, NY, [6]University of Zurich, Zurich, Zurich, [7]Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, NY, [8]University of California Irvine, Irvine, CA, [9]University of Southern California, Los Angeles, CA, [10]Department of Neuroscience, University Medical Center Groningen, Groningen, Groningen, [11]King's College London, London, London

2000 **Long-term changes in the structure of the brain after TBI sustained in adolescence**
Carola Tuerk[1], Fanny Dégeilh[2], Cathy Catroppa[3,4], Vicki Anderson[3,4], Miriam Beauchamp[1,5]
[1]Department of Psychology, University of Montreal, Montreal, Quebec, Canada, [2]Department of Child and Adolescent Psychiatry, Ludwig-Maximilian-University, Munich, Germany, [3]Murdoch Children's Research Institute, Melbourne, Victoria, Australia, [4]University of Melbourne, Melbourne, Victoria, Australia, [5]CHU Sainte-Justine Research Center, Montreal, Quebec, Canada

2008* **A Bayesian normative model to estimate multi-scanner effects in structural neuroimaging data**
Johanna Bayer[1,2], Richard Dinga[3,4], Akhil Kottaram[2], Andre Marquand[3,4], Lianne Schmaal[2,1]
[1]The University of Melbourne, Melbourne, Victoria, Australia, [2]Orygen Youth Health, Melbourne, Victoria, Australia, [3]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, [4]Radboud University, Nijmegen, Netherlands

2024 **Exploring the locus coeruleus with high-field MRI**
Andrew Reid[1], Maddie Groom[1], Olivier Mougin[1], Paul Morgan[1], Robert Dineen[1], Christopher Madan[1], Charlotte Askey[1], Mark Eckert[2], Penny Gowland[1]
[1]University of Nottingham, Nottingham, United Kingdom, [2]Medical University of South Carolina, Charleston, SC

2052 7T in-vivo MRI at 350µm iso. res. using multi echo T2* imaging with flow artifact mitigation
Omer Faruk Gulban[1], Laurentius Huber[1], Benedikt Poser[1], Kendrick Kay[2], Martin Havlicek[1], Federico De Martino[1], Dimo Ivanov[1]
[1]Maastricht University, Maastricht, [2]University of Minnesota, Minneapolis, MN

2055 Behind brain structural alteration patterns. Can clustering reveal organizational principles?
Jordi Manuello[1], Lorenzo Mancuso[2], Linda Ficco[2], Donato Liloia[2], Andrea Nani[2], Tommaso Costa[2], Sergio Duca[2], Franco Cauda[2]
[1]University of Turin, Turin, Italy, [2]Università degli Studi di Torino, Turin, Italy

2067 Vertex-wise structural covariance in functionally-derived brain networks in schizophrenia
Katie Lavigne[1], Carolina Makowski[2], Lindsay Lewis[1], Martin Lepage[3], Alan Evans[4]
[1]McGill University, Montreal, Quebec, [2]University of California San Diego, La Jolla, CA, [3]Douglas Mental Health University Institute, McGIll University, Montreal, Quebec, [4]McGill University, Montreal, Montreal

2068 Morphological signatures of human spatial memory
Shahin Tavakol[1], Qiongling Li[1], Sara Larivière[1], Reinder Vos de Wael[1], Benoit Caldairou[2], Andrea Bernasconi[2], Neda Bernasconi[2], Tom Hartley[3], Elizabeth Jefferies[3], Jonathan Smallwood[3], Boris Bernhardt[1]
[1]Multimodal Imaging and Connectome Analysis Laboratory, McConnell Brain Imaging Centre, MNI, Montreal, Quebec, [2]Neuroimaging of Epilepsy Laboratory, McConnell Brain Imaging Center, MNI, Montreal, Quebec, [3]University of York, York, England

2073 Fully transparent qMRLab pipelines to quantify brain microstructure: From scanner to publication
Agah Karakuzu[1,2], Mathieu Boudreau[3], Julien Cohen-Adad[1,4], Nikola Stikov[1,2]
[1]NeuroPoly Lab, Ecole Polytechnique, Montreal, Canada, [2]Montreal Heart Institute, Montreal, Canada, [3]Montreal Heart Institute, Montreal, Quebec, [4]Unité de Neuroimagerie Fonctionnelle (UNF), Centre de recherche de l'Institut Universitaire de Gériatrie de Montréal (CRIUGM), University of Montreal, Montreal, Canada

2083 Subregion-specific Insular Morphological Changes across Mental Disorders
Jie Tang[1]
[1]Institute of Automation-Chinese Academy of Sciences, Beijing, China

2107 Large-scale body-brain mapping reveals distinct gray matter profiles linked to body morphology
Tiril Gurholt[1], Tobias Kaufmann[1], Nils Eiel Steen[1], Lars Westlye[1,2], Ole Andreassen[1]
[1]NORMENT, Oslo University Hospital & University of Oslo, Oslo, Norway, [2]Department of Psychology, University of Oslo, Oslo, Norway

2108 A standardized protocol for reliable quality control of brain registration in function MRI studies
Yassine Benhajali[1], AmanPreet Badhwar[2], Helen Spiers[3], Sebastian Urchs[4], Jonathan Armoza[5], Thomas Ong[6], Daniel Pérusse[7], Pierre Bellec[8]
[1]Université de Montréal, Montreal, QC, [2]CRIUGM, University of Montreal, Montreal, Quebec, [3]The Zooniverse, Oxford, Oxford, [4]Montreal Neurological Institute and Hospital, Montréal, QC, [5]New York University, New York, NY, [6]Jewish General Hospital, Montreal, Quebec, [7]Université de Montréal, Montreal, Quebec, [8]Centre de recherche de l'institut de gériatrie de Montréal, Montréal, Québec

2109 Assessing the Impact of Prospective Motion Correction on the Reliability of Structural Imaging
Lei Ai[1], Cameron Craddock[2], Nim Tottenham[3], Jonathan Dyke[4], Stan Colcombe5[5], Michael Milham[1,5], Alexandre Franco[1,5,6]
[1]Child Mind Institute, New York, NY, [2]The University of Texas at Austin Dell Medical School, austin, TX, [3]Columbia University, New York, NY, [4]Weill Cornell Medicine, New York, NY, [5]Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY, [6]New York University School of Medicine, New York, NY

2112 General principles of gene dosage effects on brain structure
Claudia Modenato[1], Kuldeep Kumar[2], Clara Moreau[2], Catherine Schramm[2], Guillaume Huguet[2], Sandra Martin-Brevet[3], Aurélie Pain[4], Anne Maillard[4], Sonia Richetin[4], Borja Rodriguez-Herreros[4], Lester Melie-Garcia[5], Ana Dos Santos Silva[6], Marianne Van Den Bree[6], David Linden[6], Carrie Bearden[7], Danilo Bzdok[8], Sarah Lippé[9], Mallar Chakravarty[8], Bogdan Draganski[10], Sébastien Jacquemont[11]
[1]University of Lausanne, Tremona, Ticino, [2]Research Center CHU Sainte-Justine, Montreal, Quebec, [3]University of Geneva, Geneva, Geneva, [4]Centre Cantonale Autisme, Lausanne, Vaud, [5]EPFL, Lausanne, Vaud, [6]Cardiff University, Cardiff, Wales, [7]UCLA, Los Angeles, CA, [8]McGill University, Montreal, Quebec, [9]Université de Montréal, Montreal, Quebec, [10]LREN, Lausanne, Vaud, [11]University of Montréal, University Hospital Sainte Justine, Montréal, Québec

2113 Cervical Spinal Cord Atrophy Above Level of Asymptomatic Degenerative Cervical Cord Compression
Jan Valošek[1,2], Petr Bednařík[3,4], Tomáš Horák[3,5], Magda Horáková[5], Alena Svátková[3,6], René Labounek[1,7], Petr Hluštík[1], Josef Bednařík[3,5]
[1]Department of Neurology, University Hospital Olomouc, Olomouc, Czechia, [2]Department of Biomedical Engineering, University Hospital Olomouc, Olomouc, Czechia, [3]Central European Institute of Technology, Masaryk University, Brno, Czechia, [4]High Field MR Centre, Medical University of Vienna, Vienna, Austria, [5]Department of Neurology, University Hospital Brno, Brno, Czechia, [6]Department of Medicine III, Clinical Division of Endocrinology and Metabolism, Medical University of Vienna, Vienna, Austria, [7]Department of Pediatrics, University of Minnesota, Minneapolis, USA

2117 Low CD4 nadir linked to widespread cortical thinning in adults with HIV
Shiva Hassanzadeh-Behbahani[1], Kyle Shattuck[1], Margarita Bronshteyn[1], Matthew Dawson[2], Monica Diaz[2], Princy Kumar[1], David Moore[2], Ronald Ellis[2], Xiong Jiang[1]
[1]Georgetown University, Washington, DC, [2]University of California, San Diego, La Jolla, CA

2157 Assessment of vNav prospective motion correction in the HCP Aging study
Robert Frost[1], M. Dylan Tisdall[2], Malte Hoffmann[1], Bruce Fischl[1], David H. Salat[1], Andre van der Kouwe[1]
[1]A. A. Martinos Center for Biomedical Imaging, Harvard Medical School, Massachusetts General Hospital, Boston, MA, [2]Department of Radiology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA

2159 Brain Laterality Revealed on 6000+ Subjects and Varied across Lifespan
Na Luo[1], Jing Sui[2], Thomas P. Deramus[3], Vince Calhoun[4]
[1]Chinese Academy of Sciences, Beijing, Beijing, [2]Brainnetome Center and National Laboratory of Pattern Recognition, Institute of Automation, Beijing, Beijing, [3]Georgia State University, Atlanta, GA, [4]Georgia State/Georgia Tech/Emory, Atlanta, GA

2160 Masking out the Dura Mater in MRI: improving brain segmentation
Giovana Cover[1], Reza Farivar[1]
[1]McGill University, Montréal, Quebec

2163 Reduced Hippocampal Volume Following a First-Episode of Psychosis and Association with Verbal Memory
Agnes Belkacem[1], Katie Lavigne[1], Carolina Makowski[2], Mallar Chakravarty[1], Ridha Joober[2], Ashok Malla[3], Jai Shah[4], Martin Lepage[5]
[1]McGill University, Montreal, Quebec, [2]McGill University, Montreal, QC, [3]Douglas University Institute, Montreal, QC, [4]The Douglas Research Centre, Montreal, Quebec, [5]Douglas Mental Health University Institute, McGIll University, Montreal, Quebec

2164 Shared and distinct structural plasticity following unilateral brain damage
Yijun Chen[1], Yaya Jiang[1], Xiangyu Kong[1], Gaolang Gong[1]
[1]Beijing Normal University, Beijing, China

2166 Altered structural network of default-mode areas related to autistic symptoms in youths with autism.
Wei Ting Ko[1], Susan Gau[2], Yu-chieh Chen[3]
[1]Department of Psychiatry, National Taiwan University Hospital, Taiper, Taiwan, [2]Department of Psychiatry, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan, [3]Department of Psychiatry, National Taiwan University Hospital, Taipei, Taiwan

BOLD fMRI

1988 Disrupted effective connectivity within the default mode network in major depressive disorder
Yun Wang[1], Yuan Zhou[2]
[1]Beijing Anding Hospital, Capital Medical University, Beijing, Beijing, [2]Institute of Psychology, Chinese Academy of Sciences, Beijing, Beijing

1989* Brain Function in the Pre-Adolescent Brain: Results from the ABCD Study.
Bader Chaarani[1], Nicholas Allgaier[1], Sage Hahn[1], Shana Adise[1], Max Owens[1], De Kang Yuan[1], Hannah Loso[1], Alex Ivanciu[1], Scott Mackey[1], Jennifer Laurent[1], Alexandra Potter[1], Hugh Garavan[1]
[1]University of Vermont, Burlington, VT

1990 Predictors of fMRI Neurofeedback regulation in ADHD
Sheut-Ling Lam[1], Marion Criaud[1], Analucia Alegria[1], Gareth Barker[2], Vincent Giampietro[2], Katya Rubia[1]
[1]Department of Child & Adolescent Psychiatry, King's College London, London, United Kingdom, [2]Department of Neuroimaging, King's College London, London, United Kingdom

1995 Effects of menopausal estrogen loss on the functional brain activity underlying associative memory
Alana Brown[1], Anne Almey[1], Nicole Gervais[1], Annie Duchesne[2], Laura Gravelsins[1], Rebekah Reuben[1], Elizabeth Baker-Sullivan[1], Jenny Rieck[3], Giulia Baracchini[4], William Foulkes[4], Wendy Meschino[5], Cheryl Grady[6], Gillian Einstein[6]
[1]University of Toronto, Toronto, Ontario, [2]University of Northern British Columbia, Prince George, British Columbia, [3]Rotman Research Institute, Baycrest Health Sciences, Toronto, Ontario, [4]McGill University, Montreal, Ontario, [5]North York General Hospital and University of Toronto, Toronto, Ontario, [6]University of Toronto and Rotman Research Insitute of Baycrest Health Sciences, Toronto, Ontario

1998 Mapping directional functional connectivity across brain-wide networks with layer-specific CBV-fMR
Laurentius Huber[1], Emily Finn[2], Denizhan Kurban[1], Sean Marrett[2], Arman Khojandi[2], Rainer Goebel[3], Peter Bandettini[2], Benedikt Poser[1]
[1]MR-Methods group, CN, MBIC, FPN, Uni Maastricht, Maastricht, The Netherlands, [2]NIMH, Bethesda, USA, [3]CN, MBIC, FPN, Uni Maastricht, Maastricht, The Netherlands

2011 The Interaction Between COMT Genotype, Tolcapone and Stress on Working Memory Related Brain Activity
Marieke Martens[1,2,3], Elizabeth Tunbridge[1,2], Paul Harrison[1,2,3]
[1]Department of Psychiatry, University of Oxford, Oxford, United Kingdom, [2]Oxford Health NHS Foundation Trust, Oxford, United Kingdom, [3]Wellcome Centre for Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom

2017 The reliability of multiple parameters in fMRI changed by timescale in high sample individual
Xiaolin Yang[1], Yidan Qiu[1], Qunjun Liang[1], Haishan Yuan[1], Qing Qi[1], Lunxiong Li[2], Fengguang Xia[2], Ruiwang Huang[1]
[1]Center for Study of Applied Psychology, School of Psychology, South China Normal University, Guangzh, Guangdong, China, [2]Institute for Brain Research and Rehabilitation, South China Normal University, Guangzhou, China, Guangdong, China

2021 Associations between glutamate and resting state functional connectivity in Cannabis users.
Canek Llera-Magord[1], Enrique Chiu-Han[1], Diego Ramírez-González[1], Sarael Alcauter[1]
[1]Universidad Nacional Autónoma de México, Querétaro, México.

2022 Silent fMRI of auditory and motor functions using coherence-resolved Looping Star
Nikou Damestani[1], Ana Beatriz Solana[2], Owen O'Daly[1], David Lythgoe[1], Steven Williams[1], Brice Fernandez[3], Florian Wiesinger[2], Fernando Zelaya[1]
[1]King's College London, London, United Kingdom, [2]GE Healthcare, Munich, Germany, [3]GE Healthcare, Paris, France

2023 Impact of sex on weight-loss and brain function in obese patients at 6-month post-surgery
Jia Wang[1], Guanya Li[1], Yang Hu[1], Wenchao Zhang[1], Yang He[1], Yongzhan Nie[2], Gene-Jack Wang[3], Yi Zhang[1]
[1]Center for Brain Imaging, School of Life Science and Technology, Xidian University, Xi'an, Shaanxi 710126, China, [2]State Key Laboratory of Cancer Biology, National Clinical Research Center for Digestive Diseases and Xijing Hospital of Digestive Diseases, Fourth Military Medical University, Xi'an, Shaanxi 710032, China, [3]Laboratory of Neuroimaging, National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD20892, USA

2026 Abnormal propagated activity of the precuneus in disorders of consciousness
Yu Guo[1], Bolin Cao[1], Mingxian Zhang[1], Yidan Qiu[1], Qing Qi[1], Qiuyou Xie[2], Ronghao Yu[3], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, School of Psychology, South China Normal University, Guangzhou, China, [2]Department of rehabilitation medicine, Zhujiang Hospital, Southern Medical University, Guangzhou, China, [3]Centre for Hyperbaric Oxygen and Neurorehabilitation, Liuhuaqiao Hospital, Guangzhou, China

2027 Neural response to attentional state modulation is sensitive to development and trait inattention
Sufang Li[1], Xiaozhen You[1,2], Chandan Vaidya[1,2]
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2033 Global Signal in Deep Anesthesia
Ho-Ching Yang[1], Jun Zhang[2], Zirui Huang[3], Yunjie Tong[1]
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2038 Time-resolved fast neural decoding independent of variation in hemodynamic response latency
Yoichi Miyawaki[1,2,3], Daniel Handwerker[3], Javier Gonzalez-Castillo[3], Laurentius Huber[4,3], Arman Khojandi[3], Yuhui Chai[3], Peter Bandettini[3]
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2041 Aberrant functional connectivity of amygdala subregions in individuals with high anxiety trait

Chanyu Wang[1], Lingfang Ning[1], Tatia Lee[2,3,4], Chichen Zhang[5], Xiaoyuan Zhang[1,6], Ruiwang Huang[7], Ruibin Zhang[1,6]
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2043 Abnormal Intrinsic Functional Architecture in Drug-free Patients with Major Depressive Disorder

Jian Cui[1], Yun Wang[1], Yuan Zhou[2], Gang Wang[1]
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2044 Cognitive/Neural Compensatory Mechanisms in Schizophrenia: Reaction Times-Brain Activity Correlates

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2045 Assessment of brain functional connectivity alterations in heavy smoker using resting-state fMRI

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2046 Effects of acupuncture on cue-induced brain activations and alcohol cravings: A functional MRI study

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2047 Bariatric surgery-induced changes in gut microbiota associated with resting brain activity

Ganggang Lv[1], Guanya Li[1], Yang Hu[1], Wenchao Zhang[1], Jia Wang[1], Yang He[1], Zhida Zhang[1], Yongzhan Nie[2], Yi Zhang[1]
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2048 Artificial scotoma size estimation on high-resolution 7T retinotopy data

David Linhardt[1], Maximilian Pawloff[2], Allan Hummer[1], Markus Ritter[2], Michael Woletz[3], Ursula Schmidt-Erfurth[4], Christian Windischberger[5]
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2050 Gender difference of the depressive symptoms reduction during college life

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2051 More FMRI QC in AFNI: updates for afni_proc.py's automatic HTML review

Paul Taylor[1], Daniel Glen[2], Richard Reynolds[2]
[1]NIH, Bethesda, MD, [2]NIMH, Bethesda, MD

2054 The Role of Emotion Processing Areas in Children's Face Perception Network

Isabell Debus[1], Franziska Elise Hildesheim[1], Roman Kessler[1], Ina Thome[1], Kristin Marie Zimmermann[1], Olaf Steinsträter[1], Jens Sommer[1], Inge Kamp-Becker[1], Rudolf Stark[2], Andreas Jansen[1]
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2058 Maintaining context and temporal information during sequence execution

Danesh Shahnazian[1], Ruth Krebs[2], Mehdi Senoussi[2], Tom Verguts[2], Clay Holroyd[2]
[1]University of Ghent, Gent, East Flanders, [2]University of Ghent, Ghent, Oost Vlaanders

2063 Influence of GRAPPA pre-scan methods on temporal SNR of rapid GE-EPI measurements at 9.4 Tesla

Edyta Leks[1,2,3], Jonas Bause[2], Rahel Heule[2], Philipp Ehses[4], Wolfgang Grodd[2], Klaus Scheffler[1,2]
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2070 Context-Sensitive Models of Naturalistic Stimuli Reveal Unique Patterns of Brain Activity

Chandler Richards[1], Emily Finn[2], Peter Molfese[1], Peter Bandettini[1]
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2081 A Connectivity-Based Real-Time fMRI Neurofeedback Targeting the Rumination

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2082 Cortical Depth-Dependent Function Analysis in the Native EPI Space Based on BISEPI at 7T

Guoxiang Liu[1,2], Adnan Shah[1,2], Takashi Ueguchi[1,2]
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2088 Automated slice-specific z-shimming for fMRI of the human spinal cord
Merve Kaptan[1], Johanna Vannesjö[2], Toralf Mildner[1], Nikolaus Weiskopf[3,4], Jürgen Finsterbusch[5], Falk Eippert[1]
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2089 Changes of homotopic functional connectivity after unilateral stroke
Yaya Jiang[1], Yijun Chen[1], Gaolang Gong[1]
[1]Beijing Normal University, Beijing

2091 Reduced neural satiety responses in women affected by obesity
Susanna Gobbi[1], Susanna Weber[1], Gwendolyn Graf[2], Daria Hinz[1], Nori Geary[3], Loredana Asarian[4], Brigitte Leeners[2], Todd Hare[1], Philippe Tobler[1]
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2092 Frequency-specific regional homogeneity alterations in Tourette syndrome
Xiaolong Li[1,2,3], Jue wang[1,2,3], Yufeng Zang[1,2,3], Yuting Lou[4], Ye Wang[4], Jianhua Feng[4]
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2097 Cybersickness in Virtual Reality is Correlated to the Attenuated Activation of the Insular Cortex
Shanshan Chen[1], Dongdong Weng[1,2], Ruiying Shen[1], Xinhuai Wu[3]
[1]School of Optics and Photonics, Beijing Institute of Technology, Beijing, China, [2]AICFVE of Beijing Film Academy, Beijing, China, [3]Department of Radiology, the 7th Medical Center of PLA General Hospital, Beijing, China

2098 Alterations in functional connectivity dynamics reveal distinct state-wise signatures in anti-NMDARE
Nina von Schwanenflug[1], Stephan Krohn[2], Josephine Heine[1], Harald Prüss[1], Friedemann Paul[1], Carsten Finke[2]
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2100 Pupillometry tracks cognitive load and salience network activity in a working memory fMRI task
Julia Fietz[1,2], Dorothee Poehlchen[1,2], Florian Binder[1,2], BeCOME working group[1,3], Michael Czisch[3], Philipp Saemann[3], Victor Spoormaker[1]
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2104 Attention modulation of sensory responses in non-corresponding primary sensory cortices
Sijia Wang[1], Qian Su[1], Li Hu[2], Meng Liang[1]
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2110 Layered fMRI of prediction error related activity in early auditory cortices
Jakob Heinzle[1], Lars Kasper[1], Katharina Wellstein[1], Johanna Bayer[2], Frederike Petzschner[3], Ines Pereira[3], Matthias Müller-Schrader[3], Maria Engel[4], Klaas Pruessmann[4], Klaas Enno Stephan[1]
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2121 Multi-echo EPI of Human Fear Conditioning: Advanced Analysis Using ME-ICA based Denoising
Brice Fernandez[1], Laura Leuchs[2], Philipp Saemann[2], Michael Czisch[2], Victor Spoormaker[2]
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2130 Multi-perfusion Information to Assess the Impact of Sub-concussive on High School Football Players
Jinxia Yao[1], Ho-Ching Yang[1], James Wang[1], Zhenhu Liang[2,1], Nicole Vike[3], Taylor Lee[3], Joseph Rispoli[1], Eric Nauman[4,1], Thomas Talavage[1,5], Yunjie Tong[1]
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2132 Associations of different forms of childhood maltreatment and reward processing
Karina Blair[1], Sahil Bajaj[1], James Blair[1]
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2133 Studying the Dynamic Pattern of Low Frequency Oscillation in RS-fMRI Data Using a Carpetplot
Jinxia Yao[1], Bradley Fitzgerald[1], Caleb Clark[1], Thomas Talavage[1], Blaise Frederick[2], Yunjie Tong[1]
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2140 Humans exploit movements rather than endpoints in action segmentation: a computer vision model test
Jennifer Pomp[1], Minija Tamosiunaite[2], Florentin Wörgötter[2], Ricarda Schubotz[1]
[1]University of Muenster, Muenster, NRW, [2]University of Goettingen, Goettingen, Lower Saxony

2141* On Visualization and Interpretation of Complex Connectomic Results
Javid Dadashkarimi[1], Stephanie Noble[1], Abigail Greene[1], R Todd Constable[1], Xenophon Papademetris[1], Dustin Scheinost[1]
[1]Yale University, New Haven, CT

2144 Highly Purified Cannabidiol (CBD) affects Working Memory Performance in Epilepsy
Tyler Gaston[1], Jane Allendorfer[2], Sangeeta Nair[1], E. Martina Bebin[1], Leslie Grayson[3], J. Thomas Houston[4], Jerzy Szaflarski[1]
[1]University of Alabama at Birmingham, Birmingham, AL, [2]UAB, Birmingham, AL, [3]University of Alabama at Birmingham, Birmingham, AL, [4]University of Alabama at Birmingham, Birmingham, AK

2146 Language System Response Predicts Heavy Vapers' Reaction to Anti-Vaping PSAs: Preliminary Findings
Jiaying Liu[1], Erin Jones[1], Lawrence Sweet[1]
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2147 The Neural Correlates of Alcohol Demand in Individuals with Alcohol Use Disorder
Sabrina Syan[1], James MacKillop[1], Lawrence Sweet[2], Shannon McNally[2], Michael Amlung[1], Tegan Hargreaves[1]
[1]McMaster University, Hamilton, Ontario, [2]University of Georgia, Athens, GA

2156 Decoding Faces in a Movie Using fMRI: A Comparison of Two Approaches
Lucia Jajcay[1,2,3], David Tomeček[2,3], Anna Pidnebesna[1,2,3], Jaroslav Hlinka[1,2]
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2161 Functional connectivity of the visual cortex regions with positive and negative BOLD response
Hengda He[1], Qolamreza Razlighi[2]
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2167 Sex differences in the neural response to acute psychosocial stress
Leandra Kuhn[1], Hannes Noack[2], Lisa Wagels[1], Vanessa Nieratschker[2], Ute Habel[3], Birgit Derntl[4]
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2168 Sub-Millimeter Spiral fMRI
Lars Kasper[1,2], Maria Engel[2], Jakob Heinzle[1], Matthias Müller-Schrader[1], Jonas Reber[2], Thomas Schmid[2], Christoph Barmet[2], Bertram Wilm[2], Klaas Enno Stephan[1], Klaas Pruessmann[2]
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2170 Identification and Removal of Simultaneous Slice Artifacts in Multiband fMRI
John Williams[1], Jared Van Snellenberg[1]
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Diffusion MRI

1997 Advantage of diffusion MRI with simultaneous multi-slice readout-segmented EPI in tractography
Hiromasa Takemura[1,2], Wei Liu[3], Hideto Kuribayashi[4], Ikuhiro Kida[1,2]
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2002 Accelerated MRI acquisitions for combined diffusometry and T2- or T2*-relaxometry
Steven Baete[1,2], Zidan Yu[1,2], Gregory Lemberskiy[1,2], Tiejun Zhao[3], Ying-Chia Lin[1,2], Dan Iosifescu[4,5], Jelle Veraart[1,2]
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2004 Fast EPI geometry correction: application to functional and diffusion MRI
Maarten Versluis[1], Giuseppe Valvano[1]
[1]Philips Healthcare, Best, NB

2018 Neural connectivity of the precuneus in the human brain: a diffusion tensor tractography study
Sung Ho Jang[1], Yousung Seo[2], Minkyung Cho[2]
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2039 Diffusion Kurtosis Imaging Detects Hypertension-Related Alterations in Brain Microstructure
Thomas Welton[1], Sarah Hellewell[1], Nadia Lahoud[1], Stuart Grieve[1]
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2057 Effect of dMRI data quality on diffusion measures in children
Nabin Koirala[1], Meaghan Perdue[1], Elena Grigorenko[2], Nicole Landi[1]
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2069 Glymphatic system activity declines with age in older but not in younger individuals
Rodolphe Nenert[1], Jane Allendorfer[1], Adam Goodman[1], Jerzy Szaflarski[1]
[1]University of Alabama at Birmingham, Birmingham, AL

2074 Do Cognitively Healthy APOE e2 and e4 Carriers Differ in White Matter Microstructure?
Colleen Lacey[1], Jake Gjerdalen[1], Chantel Mayo[1], Jodie Gawryluk[1]
[1]University of Victoria, Victoria, British Columbia

2095 Effects of prenatal stress on the amygdala using diffusion tensor imaging
Niloofar Hashempour[1], Jetro Tuulari[1], Harri Merisaari[2], Jani Saunavaara[3], Riitta Parkkola[4], Tuire Lähdesmäki[5], Satu Lehtola[6], Maria Keskinen[6], John D. Lewis[7], Noora Scheinin[6], Linnea Karlsson[6], Hasse Karlsson[6]
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2103 Denoising diffusion-weighted magnetic resonance data using convolutional neural networks
Sophia Vinci-Booher[1], Bradley Caron[1], Jian Wang[1], Sharlene Newman[1], Franco Pestilli[1], Hu Cheng[1]
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2105 Prolactin and the Injured Brain: A Longitudinal Diffusion Tensor Imaging Case Study.
Emma Strawderman[1], Alejandra Rodriguez[2], Ricky Hoang[2], Sam Haber[3], Benjamin Chernoff[4], Colleen Schneider[2], Ismat Shafiq[5], Zoe Williams[6], G. Edward Vates[3], Bradford Mahon[4,3], David Paul[3]
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2128 White Matter Abnormalities in Military Traumatic Brain Injury: Results from ENIGMA Brain Injury

Heather Bouchard[1,2], Delin Sun[1,2], Emily Dennis[3,4,5,6], Seth Disner[7,8], Jeremy Elman[9,10], Annelise Silva[11], Carmen Velez[3,4], Mary Newsome[12,13], Nicholas Davenport[7,8], Andrei Irimia[14,15], Maya Troyanskaya[12,13], Scott Sponheim[7,8], Randall Scheibel[12,13], Benjamin Wade[16,17], Carol Franz[9,10], William Kremen[9,10,18], Michale Coleman[11], Wright Williams[13,19], Harvey Levin[12,13], Elbert Geuze[20,21], Inga Koerte[11], Maheen Adamson[22,23], Raul Coimbra[24], Gerald Grant[25], Lori Shutter[26], Mark George[27], Ross Zafonte[28], Thomas McAllister[29], Martha Shenton[11], Murray Stein[30,9], Elisabeth Wilde[31,4,5], David Tate[31,4], Paul Thompson[32,33], Aristeidis Sotiras[34], Rajendra Morey[1,2]
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2129 Microstructural Stages of Cortex Thinning in Psychotic Spectrum Disorders

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2131* Prospective Data Harmonization for Multi-site Diffusion MRI Data Analysis

Suheyla Cetin-Karayumak[1], Marek Kubicki[1], Yogesh Rathi[1]
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2134 Microstructural Alterations Correlate with Exposure to High Magnitude Head Impact in Youth Football

Weihong Yuan[1], Jed Diesfuss[1], Kim Barber Foss[1], Jonathan Dudley[1], Christopher DiCesare[1], Danielle Reddington[1], Wen Zhong[1], Katharine Nissen[1], Jessica Shafer[1], James Leach[1], Scott Bonnette[1], Kelsey Logan[1], Jeffery Epstein[1], Joseph Clark[2], Mekibib Altaye[1], Greg Myer[1]
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2135 Microstructural Alterations of Superior Longitudinal and Arcuate Fasciculi in Chronic Schizophrenia

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2136 Fiber tracking framework for estimating rotationally-invariant with paired-ODF spatial correlations

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2138 Selective Impact of Maternal Childhood Maltreatment on Different White Matter Pathways

Banu Ahtam[1], Ai Wern Chung[1], Sommer Jaber[1], Juan Perez[1], Michaela Sisitsky[1], Jennifer Khoury[2], Borjan Gagoski[1], Yangming Ou[1], Julianna Standish[1], Josephine Wilson[1], Michelle Enlow[1], Karlen Lyons-Ruth[2]
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2158 Multi-diffusion and multi-T2 weighted Monte-Carlo simulations.

Jonathan Rafael-Patino[1], Gabriel Girard[2,1], Elda Fischi-Gomez[3,1], David Romascano[4], Thomas Yu[1], Marco Pizzolato[1], Alonso Ramirez-Manzanares[5], Erick Canales Rodríguez[6], Jean-Philippe Thiran[1,2]
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2171 Mapping out cortical topography of the mid-sagittal corpus callosum

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[1]BNU, Beijing, China, [2]Beijing Normal University, Beijing, China, [3]Beijing Normal University, Beijing, AK

EEG

1991 RT-NET: a software package for neural activity estimation from high-density EEG recordings

Roberto Guarnieri[1], Mingqi Zhao[1], Gaia Amaranta Taberna[1], Marco Ganzetti[2], Stephan Patrick Swinnen[1,3], Dante Mantini[1,4]
[1]KU Leuven, Leuven, Belgium, [2]Roche Pharmaceutical Research and Early Development, Basel, Switzerland, [3]Leuven Brain Institute, KU Leuven, Leuven, Belgium, [4]IRCCS San Camillo Hospital, Venice, Italy

1993 Preoperative Language Mapping Using High-Density Scalp EEG: A Pilot Study

James Surgenor[1], Zachary Leeds[2], Yinchen Song[3,4]
[1]Kimball Union Academy, Meriden, NH, [2]Colgate University, Hamilton, NY, [3]Department of Neurology, Dartmouth-Hitchcock Medical Center, Lebanon, NH, [4]Geisel School of Medicine, Dartmouth College, Hanover, NH

2006 Intracranial EEG atlas of human sleep

Nicolas von Ellenrieder[1], Jean Gotman[2], Rina Zelmann[3], Christine Rogers[4], Dang Nguyen[5], Philippe Kahane[6], François Dubeau[7], Birgit Frauscher[8]
[1]Montreal Neurological Institute, McGill University, Montreal, Quebec, [2]McGill University, Montreal, Quebec, [3]Massachusetts General Hospital and Harvard Medical School, Boston, MA, [4]McGill, Montreal, QC, [5]Centre hospitalier de l'Université de Montréal, Montreal, Quebec, [6]Universidad de Grenoble, Grenoble, Grenoble, [7]Montreal Neurological Institute and Hospital, Montreal, Quebec, [8]Montreal Neurological Institute, Montreal, Quebec

2013 The relationship between motor ability and cognitive control.
Marta Topor[1], Philip Dean[1], Hayley Leonard[1], Bertram Opitz[1]
[1]University of Surrey, Guildford, Surrey

2078 An ERP study of Fz during 3-back task : Comparion of Birth experience
JinJu Jung[1], YeJin Kim[1], je-hyeop Lee[1], MiHyun Choi[1], Soon-Cheol Chung[1], HyunJun Kim[1]
[1]Konkuk University, Chungju, Chungcheungbuk-do

2079 Comparison of ERP between Pure EEG and Simultaneous EEG-fMRI Recordings in Sustained Attention Task
Yu-Ting Cheng[1], Chia-Fen Hsu[2], H. Y. Hydra Ng[3], Chia-Wei Li[4], Chun-Hsiang Chuang[5], Chih-Mao Huang[6], Yi-Ping Chao[7], Changwei Wu[3]
[1]Graduate Institute of Mind Brain and Consciousness, Taipei Medical University, Taipei City, Taipei City, [2]Department of Occupational Therapy, Chang Gung University, Taoyuan City, Taiwan, [3]Graduate Institute of Mind Brain and Consciousness, Taipei Medical University, Taipei City, Taiwan, [4]Department of Radiology, Wan Fang Hospital, Taipei Medical University, Taipei City, Taiwan, [5]Department of Computer Science and Engineering, National Taiwan Ocean University, Keelung City, Taiwan, [6]Department of Biological Science and Technology, National Chiao Tung University, Hsinchu City, Taiwan, [7]Department of Medical Mechatronics, Chang Gung University, Taoyuan City, Taiwan

2080 Subjective Evaluation and EEG Analysis of Electrical Stimulation at Various Frequencies and Intensit
Je-Hyeop Lee[1], Jin-Ju Jung[1], Hyung-Sik Kim[1], MiHyun Choi[1], Soon-Cheol Chung[1]
[1]Konkuk University, Chungju, Chungchungbuk-do

2090 Altered effective cortical network in post-traumatic stress disorder during cognitive processing
Miseon Shim[1], Seung-Hwan Lee[2], Han-Jeong Hwang[1]
[1]Dept. of Medical IT Convergence Engineering, Kumoh National Institute of Technology, Gumi, Gyeongbuk, [2]Department of Psychiatry, Ilsan Paik, Inje University, Goyang-si, Gyeonggi-do

2094 Working memory training changes contralateral delay activity
Yang Li[1,2], Jun Li[3]
[1]Beijing Normal University, Beijing, Beijing, [2]Beijing Normal University, Beijing, China, [3]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, Beijing

2099 Cortical neurodynamics and aging effects of inhibitory control for saccadic eye movements
Martyna Plomecka[1], Marius Troendle[1], Zofia Barańczuk-Turska[1], Christian Pfeiffer[1], Nicolas Langer[1]
[1]University of Zurich, Zurich, Switzerland

2101 Dopaminergic intervention affects hierarchical inference and its temporal dynamics
Andreea Diaconescu[1], Christoph Mathys[2], Lars Kasper[3], Katharina Wellstein[3], Sara Tomiello[3], Lilian Weber[3], Klaas Enno Stephan[3]
[1]CAMH, Toronto, Ontario, [2]Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, Trieste, [3]Translational Neuromodeling Unit, University of Zurich & ETH Zurich, Zurich, Zurich

2116 Impact of Early Childhood Malnutrition on Adult Brain Function: ERP Results during a Go-No-Go Task
Kassandra Roger[1], Phetsamone Vannasing[1], Julie Tremblay[1], Maria L. Bringas Vega[2], Cyralene Bryce[3], Arielle Rabinowitz[4], Pedro A. Valdés-Sosa[2], Janina Galler[5], Anne Gallagher[1]
[1]LION Lab, Sainte-Justine University Hospital Research Centre, University of Montreal, Montreal, Quebec, [2]University of Electronics Science and Technology of China, Chengdu, Sichuan, [3]Barbados Nutrition Study, Bridgetown, Saint Michael, [4]Department of Neurology and Neurosurgery, McGill University, Montreal, Quebec, [5]Division of Pediatric Gastroenterology and Nutrition, MassGeneral Hospital for Children, Boston, MA

2162 Quantitative EEG measures for Neurological Prognostication in Patients with Post-Cardiac Arrest
Jung Hwa Lee[1], Sue Hyun Lee[2], Chaewon Kang[3], Sora An[4], Yoonkyung Chang[2], Seung-Ah Lee[2], Eun-Hye Lee[2], Yunseo Choi[5], Sol-Ah Kim[6], Hyeon Jin Kim[7], Hyang Woon Lee[8]
[1]Ewha Womans University Mokdong Hospital, Seoul, Seoul, [2]Departments of Neurology and Medical Science, Ewha Womans University Mokdong Hospital, Seoul, Seoul, [3]Ewha womans university, Yongin-si, Gyeonggi-do, [4]Ewha Womans University, Seoul, Korea, Republic of, [5]Ewha Womans University, Seoul, Seoul, [6]Ewha womans university, Seoul, Seoul, [7]Ewha Womans University School of Medicine, Boston, MA, [8]Ewha Womans University School of Medicine and Ewha Medical Research Institute, Seoul, AK

MEG

1992 Investigation of the major depression connectome at resting state using MEG: a preliminary study
Yuichi Takei[1], Yutaka Kato[2,3], Minami Tagawa[3,4], Tomohiro Suto[4], Masakazu Sunaga[3], Kazuyuki Fujihara[5], Noriko Sakurai[3], Masato Fukuda[6]
[1]Department of Psychiatry and Neuroscience, Gunma University Graduate School of Medicine, Maebashi, Gunma, [2]Tsutsuji Mental Hospital, Tatebayashi, Gunma-Prefecture, Japan, [3]Department of Psychiatry and Neuroscience, Graduate School of Medicine, Gunma University, Maebashi, Gunma, Japan, [4]Gunma Prefectural Psychiatric Medical Center, Maebashi, Isesaki, Japan, [5]Department of Genetic and Behavioral Neuroscience, Gunma University Graduate School of Medicine, Maebashi, Gunma, Japan, [6]Department of Psychiatry and Neuroscience, Gunma University Graduate School of Medicine, Maebashi, Gunma, Japan

1999 Functional brain network organization predicts cognitive decline in multiple sclerosis
Ilse Nauta[1], Shanna Kulik[1], Lucas Breedt[1], Anand Eijlers[1], Eva Strijbis[1], Dirk Bertens[2], Prejaas Tewarie[1], Arjan Hillebrand[1], Cornelis Stam[1], Linda Douw[1], Jeroen Geurts[1], Bernard Uitdehaag[1], Brigit de Jong[1], Menno Schoonheim[1]
[1]Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, Noord-Holland, [2]Radboud University, Nijmegen, Gelderland

2020 A robust processing pipeline for source estimation to MEG spikes
Li Zheng[1], Pan Liao[2], Linlin Zhu[1], Jia-Hong Gao[1]
[1]Peking University, Beijing, China, [2]Beijing Intelligent Brain Cloud Inc, Beijing, China

2028 How cerebral cortex protects itself from interictal spikes: the alpha/beta inhibition hypothesis
Giovanni Pellegrino[1,2], Christophe Grova[3], Eliane Kobayashi[4]
[1]IRCCS San Camillo Hospital, Venice, Venice, [2]Montreal Neurological Institute and Hospital, McGill University, Montreal, Canada, [3]Physics dpt., Concordia University, Montreal, Quebec, [4]Montreal Neurological Institute and Hospital, McGill University, Montreal, Quebec

2029 Time-Varying Source Reconstruction (tvSR)
Ryan Timms[1], Andrew Quinn[1], Alexander Skates[1], Steve Smith[1], Mark Woolrich[1]
[1]University of Oxford, Oxford, Oxfordshire

2037 MEG Imaging reveals disrupted directional information flow in epilepsy
Kiwamu Kudo[1], Hirofumi Morise[1], Kamalini Ranasinghe[2], Danielle Mizuiri[3], Abhishek Bhutada[3], Jessie Chen[3], Anne Findlay[3], Heidi Kirsch[3], Srikantan Nagarajan[3]
[1]Medical Imaging Research Department, Ricoh Company, Ltd., Kanazawa, Japan, [2]Memory and Aging center, Department of Neurology, University of California San Francisco, San Francisco, CA, [3]Department of Radiology and Biomedical Imaging, University of California San Francisco, San Francisco, CA

2064 Postoperative oscillatory brain activity as an add-on prognostic marker in diffuse glioma
Vera Belgers[1], Tianne Numan[1], Shanna Kulik[1], Arjan Hillebrand[1], Philip de Witt Hamer[1], Jeroen Geurts[1], Jaap Reijneveld[1], Pieter Wesseling[1], Martin Klein[1], Jolanda Derks[1], Linda Douw[1]
[1]Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, Noord-Holland

2115 Optimizing Portable Magnetoencephalography for Children with Soft Shielding and Virtual Sensors
Jing Xiang[1], Ellen Maue[2], Yinan Hu[3], Fawen Zhang[4], Vishal Shah[5], Yang Jiang[6]
[1]Cincinnati Children's Hospital Medical Center, Mason, OH, [2]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, [3]Johannes Gutenberg-Universit, Mainz, Mainz, [4]University of Cincinnati, Cincinnati, OH, [5]Quspin, Louisville, CO, [6]University of Kentucky, Lexington, KY

2139 Distinct effects of amyloid-beta and tau deposition on neural synchrony in Alzheimer's disease
Kamalini Ranasinghe[1], Jungho Cha[2], Leonardo Iaccarino[2], Leighton Hinkley[3], Alexander Beagle[2], Julie Pham[2], William Jagust[4], Bruce Miller[5], Katherine Rankin[2], Gil Rabinovici[6], Keith Vossel[2], Srikantan Nagarajan[3]
[1]University of California, San Francisco, San Francisco, CA, [2]UCSF, San Francisco, CA, [3]Department of Radiology and Biomedical Imaging, Universityof California San Francisco, San Francisco, CA, [4]UC Berkeley, Berkeley, CA, [5]Memory and Aging Center, Department of Neurology, Universityof California San Francisco, San Francisco, CA, [6]University of California, San Francisco, CA

2165 Automatic Co-registration for On-scalp MEG
Wenyu Gu[1], Xingyu Ru[2], Dongxu Li[1], Kaiyan He[1], Jingwei Sheng[3], Jiahong Gao[4]
[1]Peking University, Beijing, Beijing, [2]Peking University, Beijing, Beijing, [3]Center for MRI Research, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, Beijing, [4]Center for MRI Research, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing

MR Spectroscopy

2001* Dynamically Acquired 1H MRS for Detection of 13C Labeled Cerebral Glucose Metabolism In-vivo
Masoumeh Dehghani[1,2], Pedro Rosa-Neto[3,4], Pierre Etienn[5], Steven Zhang[6], Chathura Kumaragamage[7], Jamie Near[1,2]
[1]Centre d'Imagerie Cérébrale, Douglas Mental Health University, Montreal, Quebec, Canada, [2]Dept of Psychiatry, McGill University, Montreal, Quebec, Canada, [3]Translational Neuroimaging Laboratory, Douglas Research Institute, Montreal, Quebec, Canada, [4]Dept of Neurology and Neurosurgery, McGill University, Montreal, Quebec, Canada, [5]Clinical Research Division, Montreal, Quebec, Canada, [6]Dept of Neuroscience, McGill University, Montreal, Quebec, Canada, [7]Dept of Radiology and Biomedical Imaging, Yale University, New Haven, CT, US

2010 A Preliminary MRS Analysis of Effects of Olanzapine vs. Placebo in Remitted Psychotic Depression
Hideaki Tani[1], Iska Moxon-Emre[1], Natalie Forde[1], Nicholas Neufeld[1], Kathleen Bingham[2], Ellen Whyte[3], Barnett Meyers[4], George Alexopoulos[4], Matthew Hoptman[5], Anthony Rothschild[6], Hiroyuki Uchida[7], Alastair Flint[8], Benoit Mulsant[1], Aristotle Voineskos[1]
[1]Centre for Addiction and Mental Health, Toronto, ON, [2]University Health Network Centre for Mental Health, Toronto, ON, [3]Western Psychiatric Institute and Clinic, Department of Psychiatry, University of Pittsburgh School, Pittsburgh, PA, [4]Weill Medical College of Cornell University and New York Presbyterian Hospital, White Plains, NY, [5]Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NJ, [6]University of Massachusetts Medical School and UMass Memorial Health Care, Worcester, MA, [7]Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Tokyo, [8]UHN - Toronto General Hospital, Toronto, ON

2035 Reproducibility of in vivo Cortical GABA & Glx with MEGA-PRESS: Comparing 8 & 32 Channel Head Coils
Peter Truong[1], Napapon Sailasuta[1], Sofia Chavez[2]
[1]Centre for Addiction and Mental Health, Toronto, Ontario, [2]Centre for Addiction and Mental Health (CAMH), Toronto, ON

2056* Simultaneous mapping of T2* and major neurotransmitters using MRSI at 3T
Fatimah Almomen[1], Pingyu Xia[1], Xiaopeng Zhou[1], Mark Chiew[2], Adam Steel[3], Albert Thomas[4], Ulrike Dydak[1], Uzay Emir[1]
[1]Purdue University, West Lafayette, IN, [2]Oxford University, Oxford, OXford, [3]Dartmouth College, Hanover, NH, [4]David Geffen School of Medicine at UCLA, Los Angeles, CA

2075 Metabolic profile of the Heschl's Gyrus in Schizophrenia Spectrum Disorders
Pradeep Kumar Gupta[1], Hilary Bertisch[2], Oded Gonen[1], Donald Goff[3], Mariana Lazar[1]
[1]Center for Biomedical Imaging, Department of Radiology, New York University School of Medicine, New York, NY, [2]Department of Rehabilitation Medicine, New York University School of Medicine, New York, NY, [3]Department of Psychiatry, New York University School of Medicine, New York, NY

2124* Osprey: Open-Source Processing, Reconstruction & Estimation of Magnetic Resonance Spectroscopy Data
Georg Oeltzschner[1,2], Helge Zöllner[1,2], Richard Edden[1,2]
[1]Russell H. Morgan Department of Radiology and Radiological Science, Johns Hopkins University, Baltimore, MD, [2]F. M. Kirby Research Center for Functional Brain Imaging, Kennedy Krieger Institute, Baltimore, MD

2126 Test-retest reproducibility of brain temperature derivations using echoplanar spectroscopic imaging
Ayushe Sharma[1], Rodolphe Nenert[1], Christina Mueller[1], Andrew Maudsley[2], Jarred Younger[1], Jerzy Szaflarski[1]
[1]University of Alabama at Birmingham, Birmingham, AL, [2]University of Miami, Miami, FL

2148 Essential tremor and dystonic tremor: an MR Spectroscopy study
Patrick Bédard[1], Pattamon Panyakaew[2], Jan Willem van der Veen[3], Mark Hallett[1], Silvina Horovitz[1]
[1]Human Motor Control Section, MNB, NINDS, NIH, Bethesda, MD, [2]Chulalongkorn University and King Chulalongkorn Memorial Hospital, Bangkok, Bangkok, [3]MRS core, NIMH, NIH, Bethesda, MD

Multi-Modal Imaging

2003 Enhanced regional functional connectivity indicates seizure onset zone
Jianpo Su[1], Nicolás Ellenrieder[2], Hui Shen[1], Dewen Hu[1], Jean Gotman[2]
[1]National University of Defense Technology, Changsha, Hunan, [2]McGill University, Montreal, Quebec

2007 Automated Pipeline for EEG Artifact Reduction (APPEAR) Recorded during fMRI
Kaylee Henry[1,2], Ahmad Mayeli[1,3], Chung ki Wong[1], Obada Al Zoubi[1], Evan White[1], Qingfei Luo[1], Vadim Zotev[1], Hazem Refai[3], Jerzy Bodurka[1,4], Tulsa 1000 Investigators[1]
[1]Laureate Institute for Brain Research, Tulsa, OK, [2]Department of Biomedical Engineering, University of Arkansas, Fayetteville, AR, [3]Electrical and Computer Engineering, University of Oklahoma, Tulsa, OK, [4]Stephenson School of Biomedical Engineering, University of Oklahoma, Tulsa, OK

2012 Macroscale and Microcircuit Dissociation of Focal and Generalized Human Epilepsies

Yifei Weng[1], Sara Lariviere[2], Lorenzo Caciagli[3], Reinder Vos de Wael[4], Raul Cruces[5], Qiang Xu[6], Neda Bernasconi[7], Andrea Bernasconi[7], B.T. Thomas Yeo[8], Guangming Lu[6], Zhiqiang Zhang[6], Boris Bernhardt[9]
[1]Nanjing University, Nanjing, Jiangsu Province, [2]McGill University, Montreal, QC, [3]University of Pennsylvania, Philadelphia, PA, [4]Montreal Neurological Institute, Montréal, Quebec, [5]Montreal Neurological Institute, Montreal, QC, [6]Jinling Hospital, Nanjing, Jiangsu Province, [7]Neuroimaging of Epilepsy Laboratory, McConnell Brain Imaging Center, Montreal Neurological Institute, Montreal, Quebec, [8]National University of Singapore, Singapore, South West, [9]McGill University, Montreal, Quebec

2031 Repeatability and reproducibility of quantitative synthetic MRI across vendors and field strengths.

Gabriel Mangeat[1,2], Russell Ouellette[2,3], Michael Platten[2,3,4], Sven Petersson[5], Hadrien Van Loo[5], Atef Badji[1,6], Nikola Stikov[1,7], Julien Cohen-Adad[1,8], Tobias Granberg[2,3]
[1]NeuroPoly Lab, Institute of Biomedical Engineering, Polytechnique Montreal, Montreal, Quebec, [2]Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, [3]Division of Neuroradiology, Department of Radiology, Karolinska University Hospital, Stockholm, Sweden, [4]School of Engineering Sciences in Chemistry, Biochemistry and Health, Royal Institute of Technology, Stockholm, Sweden, [5]Medical Radiation Physics and Nuclear Medicine, Karolinska University Hospital, Stockholm, Sweden, [6]Division of Clinical Geriatrics, Department of Neurobiology, Care Sciences and Society, KI, Stockholm, Sweden, [7]Montreal Heart Institute, Montreal, Canada, [8]Functional Neuroimaging Unit, CRIUGM, Université de Montréal, Montreal, Canada

2032 Towards a resource for harmonisation of structural, diffusion and functional MRI across scanners

Asante Ntata[1], Olivier Mougin[2], Matteo Bastiani[1], Fidel Alfaro Almagro[3], Jon Campbell[3], Paul Morgan[4,1], Mark Jenkinson[3,5], Stamatios Sotiropoulos[1,3,6]
[1]Sir Peter Mansfield Imaging Centre, School of Medicine, University of Nottingham, Nottingham, UK, [2]Sir Peter Mansfield Imaging Centre, School of Physics, University of Nottingham, Nottingham, UK, [3]Wellcome Centre for Integrative Neuroimaging (WIN - FMRIB), University of Oxford, Oxford, UK, [4]Medical Physics & Engineering, Nottingham University Hospitals NHS Trust, Nottingham, UK, [5]Australian Institute for Machine Learning, University of Adelaide, Adelaide, Australia, [6]National Institute for Health Research (NIHR) Nottingham Biomedical Research Centre, Queens Medical Centre, Nottingham, UK

2034 A pipeline for MEG/fMRI co-processing to examine dynamic brain activity during associative learning

Sangeeta Nair[1], Yingying Wang[2], Jerzy Szaflarski[1]
[1]University of Alabama at Birmingham, Birmingham, AL, [2]University of Nebraska-Lincoln, Lincoln, NE

2042 Community-level Environmental Burden Tracks Individual Variability in Brain Morphology

Meghan Collins[1], Kevin Anderson[1], Valeria Kebets[2,3], B.T. Thomas Yeo[2,4,5,6], Avram Holmes[7,6]
[1]Yale University, New Haven, CT, [2]National University of Singapore, Singapore, [3]Department of Radiology and Medical Informatics, University of Geneva, Geneva, Switzerland, [4]5Graduate School for Integrative Sciences and Engineering, National University of Singapore, Singapore, [5]Centre for Cognitive Neuroscience, Duke–NUS Medical School, Singapore, [6]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, [7]Yale University Department of Psychology, New Haven, CT

2049 Evolution of structural-functional coupling in clinically isolated syndrome

Ismail Koubiyr[1], Pierre Besson[2], Mathilde Deloire[3], Julie Charre-Morin[3], Aurore Saubusse[3], Thomas Tourdias[1], Bruno Brochet[1], Aurélie Ruet[1]
[1]Neurocentre Magendie - INSERM U1215, Bordeaux, France, [2]Department of Radiology, Northwestern University, Feinberg School of Medicine, Chicago, IL, [3]CHU de Bordeaux, Bordeaux, France

2053 Investigate Brain Structure and Functional Variation of Heavy Cannabis Use with Multimodal MRI data

Huanjie Li[1], Sergey Chernyak[2], Fengyu Cong[1], Lisa Nickerson[3]
[1]Dalian University of Technology, Dalian, Liaoning, [2]McLean Hospital, Belmont, MA, [3]Harvard, Boston, MA

2065 Signal preservation during EEG-fMRI: BCG artifact residuals bias EEG-informed fMRI results

Jonathan Gallego-Rudolf[1], Maria Corsi-Cabrera[2]
[1]Instituto de Neurobiologia, UNAM, Mexico City, Mexico, [2]Faculty of Psichology, UNAM, Mexico City, Mexico City

2066 Neuritic Architecture Relates to Functional Brain Activity

Christin Schifani[1], Colin Hawco[1], Arash Nazeri[2], Aristotle Voineskos[1]
[1]Centre for Addiction and Mental Health, Toronto, ON, [2]Mallinckrodt Institute of Radiology, Saint Louis, MO

2076 Parallel ICA patterns of white matter lesions and cortical atrophy predicted progression in early MS

Muthuraman Muthuraman[1], Vinzenz Fleischer[2], Julia Kroth[2], Dumitru Ciolac[2], Angela Radetz[2], Nabin Koirala[2], Gabriel Gonzalez-Escamilla[2], Sven Meuth[3], Sergiu Groppa[2]
[1]Johannes Gutenberg University, Mainz, Rheinland pfalz, [2]Johannes Gutenberg University, Mainz, Rheinland Pfalz, [3]University of Munster, Munster, North Rhine-Westphalia

2077 Thinking about integrating fMRI with dMRI tractography?: we help you think

Julien Jarret[1], Arnaud Boré[2], Christophe Bedetti[2], Simona Brambati[1]
[1]Université de Montréal, Montréal, Québec, [2]Centre de recherche de l'Institut universitaire de gériatrie de Montréal, Montréal, Québec

2084 Classification of Schizophrenia using Multimodal MRI and Machine Learning.

Wasana Ediri Arachchi[1], Yanmin Peng[1], Minghui Hua[1], Meng Liang[1]
[1]Tianjin Medical University, Tianjin, China

2114* Quantitative, multimodal cell and fiber mapping in full primate brain sections

Roxana Kooijmans[1,2], Markus Axer[2], Eric Upschulte[2], Timo Dickscheid[2], Martin Schober[2], David Gräßel[2], Philipp Schlömer[2], Karl Zilles[2], Pieter Roelfsema[1], Katrin Amunts[2]
[1]Netherlands Institute for Neuroscience, Amsterdam, Noord Holland, [2]Institute for Neuroscience and Medicine (INM-1), FZ-Jülich, Jülich, Nordrhein-Westfalen

2149 Simultaneous PET-fMRI links drug-induced dopamine release to subjective 'high'

Peter Manza[1], Dardo Tomasi[2], Ehsan Shokri Kojori[1], Kai Yuan[1], Gene-Jack Wang[3], Nora Volkow[4]
[1]NIH, Bethesda, MD, [2]NIH, Bethesda, MD, [3]Laboratory of Neuroimaging, National Institute on Alcohol Abuse and Alcoholism, Bethesda, Maryland, [4]NIDA, Bethesda, MD

2151 Multi-parametric physiologic MRI to diagnosis of Neuroinflammation in multiple sclerosis

Mohammad Ali Oghanian[1], Mohammad Hosain Harirchian[1], Asieh Fatemidokht[2]
[1]Tehran University of Medical Sciences, Tehran, Iran, Islamic Republic of, [2]Tehran University of Medical Sciences, Tehran, Tehran

2152 EEG Microstates Temporal Dynamics Associations with fMRI Signals

Obada Al Zoubi[1], Masaya Misaki[1], Vadim Zotev[1], Ahmad Mayeli[1], Tulsa 1000 Investigators[1], Hazem Refai[2], Martin Paulus[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK, [2]Electrical and Computer Engineering, University of Oklahoma, Tulsa, OK

2153* **Cross-modal synchronization of intracranial EEG and fMRI during natural movie viewing**
Tiankang Xie[1], Jin Hyun Cheong[1], Amanda Brandt[1], Krzysztof Bujarski[2], Luke Chang[1]
[1]Dartmouth College, Hanover, NH, [2]Dartmouth-Hitchcock Medical Center, Lebanon, NH

2169 **Integrated Multimodal MRI of Cerebral Blood Flow and Brain structure in Adolescent Bipolar Disorder**
Kody Kennedy[1], Anahit Grigorian[2], Nicholas Luciw[2], Bradley MacIntosh[2], Benjamin I Goldstein[3]
[1]University of Toronto, Toronto, AZ, [2]University of Toronto, Toronto, ON, [3]Department of Psychiatry, University of Toronto, Toronto, Ontario

NIRS

1986 **Altered cerebral language networks in children with temporal or frontal lobe epilepsy**
Alejandra Hüsser[1], Phetsamone Vannasing[2], Julie Tremblay[3], Philippe Major[4], Anne Lortie[5], Paola Diadori[5], Bradley Osterman[5], Elsa Rossignol[5], Kassandra Roger[6], Laurie Décarie-Labbé[3], Anne Gallagher[7]
[1]Université de Montréal, Montreal, Québec, [2]Sainte-Justine University Hospital Center, Montréal, Québec, [3]Université de Montréal, Montréal, Québec, [4]CHU Sainte-Justine, Montreal, Québec, [5]CHU Sainte-Justine, Montréal, Québec, [6]University of Montreal, Montréal, Québec, [7]Université de Montréal, Montreal, Quebec

1987 **Impact of different pre-processing routines for infant fNIRS data**
Jessica Gemignani[1,2], Judit Gervain[1,2,3]
[1]Integrative Neuroscience and Cognition Center, Université Paris Descartes, Paris, France, [2]Integrative Neuroscience and Cognition Center, CNRS, Paris, France, [3]Università di Padova, Padua, Italy

2009* **LIONirs toolbox design for fNIRS data analysis.**
Julie Tremblay[1,2], Eduardo Martínez-Montes[3], Alejandra Hüsser[1,2], Laura Caron-Desrochers[1,2], Phetsamone Vannasing[1,2], Anne Gallagher[1,2]
[1]Université de Montréal, Montreal, Canada, [2]CHU Sainte-Justine, Montreal, Canada, [3]Cuban Center for Neuroscience, Havana, Cuba

2015 **Wireless fNIRS system compared to gold standard for detection of upper-extremity movement**
Chris Friesen[1], Tony Ingram[1], Michael Lawrence[1], Chris Holland[2], Heather Neyedli[3], Shaun Boe[1]
[1]Dalhousie University, Halifax, Nova Scotia, [2]Dalhousie University, Halifax, Nova Scotia, [3]University of Oxford/ Dalhousie University, Oxford, Oxford

2036 **Shedding lights on the neurocognitive effects of a visit to the Fine Arts Museum.**
Emma Dupuy[1,2], Catia Lecchino[2,3], Elaine De Guise[3,4], Arnaud Saj[3], Olivier Beauchet[5], Thomas Vincent[6,2,7], Louis Bherer[6,2,7]
[1]Département de médecine, Université de Montréal, Canada, Montreal, Canada, [2]Centre de recherche, Institut de cardiologie de Montréal, Montreal, Canada, [3]Département de psychologie, Université de Montréal, Montreal, Canada, [4]CRIR—IURDPM, CIUSSS du Centre-Sud-de-l'Île-de-Montréal, Montreal, Canada, [5]Centre of Excellence on Longevity, Université McGill, Montreal, Canada, [6]Département de médecine, Université de Montréal, Montreal, Canada, [7]Centre de recherche, Institut universitaire de gériatrie de Montréal, Montreal, Canada

2061* **The NIRS Brain AnalyzIR Toolbox**
Hendrik Santosa[1], Xuetong Zhai[1], Theodore Huppert[1]
[1]University of Pittsburgh, Pittsburgh, PA

2062 **Concurrent fNIRS-MEG and fNIRS-EEG-fMRI Analyses by Multi-Way Partially Least Squares**
Hendrik Santosa[1], Theodore Huppert[1]
[1]University of Pittsburgh, Pittsburgh, PA

2102 **Can survivors of stroke use neuroimaging at home? Usability testing of a wireless fNIRS device.**
Tony Ingram[1], Chris Friesen[1], Michael Lawrence[1], Shaun Boe[1]
[1]Dalhousie University, Halifax, Nova Scotia

2111 **An event-related fNIRS study in the lower and the higher-grader elementary schoolers**
Jongkwan Choi[1], Jae-Myoung Kim[1], Yune Sang Lee[2], Do-Joon Yi[3], Soyong Eom[4]
[1]Optical Brain Electronics Laboratory, Seoul, Seoul, [2]The Ohio State University, Columbus, OH, [3]Yonsei University, Seoul, Seoul, [4]Yonsei University College of Medicine, Seoul, Seoul

2120 **Cerebral NIRS monitoring in relation to neurological exam at term-equivalent age in preterm infants**
Gabriel Cote Corriveau[1], Olivia Beaulieu[2], Rasheda Chowdhury[3], Marie-Michèle Gagnon[4], Melanie Gagnon[4], Marie-Noelle Simard[5], Thuy Mai Luu[1], Mathieu Dehaes[6]
[1]CHU Sainte-Justine, University of Montreal, Montreal, Quebec, [2]University of Montreal, Montreal, Quebec, [3]CHU Sainte-Justine affiliated with University of Montreal, Montreal, Quebec, [4]CHU Sainte-Justine, Montreal, Quebec, [5]CHU Sainte-Justine University of Montreal, Montreal, Quebec, [6]CHU Sainte-Justine Research Center, University of Montreal, Montreal, Quebec

2125 **Hb State-Flux Measures Yield Disease-Sensitive Michaelis-Menten Type Behaviors**
Randall Barbour[1], Harry Graber[1], San-Lian Barbour[2]
[1]SUNY Downstate Medical Center, Brooklyn, NY, [2]Photon Migration Technologies, Corp., Brooklyn, NY

2127 **Brain Pulsatility Is Higher In Older Adults With Coronary Artery Disease: A Functional NIRS Study**
Hanieh Mohammadi[1,2], Thomas Vincent[3], Ke Peng[4,5], Anil Nigam[3], Mathieu Gayda[3], Sarah Fraser[6], Yves Joanette[7,2], Frédéric Lesage[8,3], Louis Bherer[3,9,2]
[1]Laboratory of Optical and Molecular Imaging, Biomedical Engineering Institute, Polytechnic Montreal, Montreal, Quebec, Canada, [2]Research Center, Institut Universitaire de Geriatrie de Montreal, Montreal, Quebec, Canada, [3]Montreal Heart Institute, Montreal, Quebec, Canada, [4]Center for Pain and the Brain, Boston Children's Hospital and Harvard Medical School, Boston, MA, USA, [5]Research Center, University of Montreal Health Centre, Montreal, Quebec, Canada, [6]Interdisciplinary School of Health Sciences, Faculty of Health Sciences, University of Ottawa, Ottawa, Ontario, Canada, [7]Faculty of Medicine, University of Montreal, Montreal, Quebec, Canada, [8]Polytechnic Montreal, Montreal, Quebec, Canada, [9]Department of Medicine, University of Montreal, Montreal, Quebec, Canada

2142 **FNIRS analysis using General Linear Model (GLM) after reconstruction along the cortical surface**
Edouard Delaire[1], Zhengchen Cai[1], Thomas Vincent[2], Jean-Marc Lina[3], Christophe Grova[1,4,5]
[1]Multimodal Functional Imaging Lab, PERFORM Centre, Department of Physics, Concordia University, Montréal, Quebec, [2]Montreal Heart Institute, Montréal, Quebec, [3]Department of Electrical Engineering, Ecole de Technologie Supérieure, Montréal, Quebec, [4]Neurology and Neurosurgery Dpt, Montreal Neurological Institute, McGill University, Montréal, Quebec, [5]Multimodal Functional Imaging Lab, Biomedical Engineering Department, McGill University, Montréal, Quebec

2145 **An fNIRS protocol for the study of numeracy in women with Turner syndrome**
Joseph Baker[1], Allan L. Reiss[1]
[1]Stanford University, Stanford, CA

2150 **Hemodynamic response to epileptic discharges during whole night simultaneous EEG-NIRS recordings**
Chifaou Abdallah[1], Zhengchen Cai[2], Edouard Delaire[2], Amanda Spilkin[2], Hugo Keraudran[2], Thien-Thanh Dang-Vu[3,4], Eliane Kobayashi[5], Christophe Grova[2,1,5,3]
[1]Biomedical Engineering, McGill University, Montreal, QC, Canada, [2]Department of Physics, Concordia University, Montreal, QC, Canada, [3]PERFORM Center, Concordia University, Montreal, QC, Canada, [4]Centre de recherche de l'Institut Universitaire de gériatrie de Montréal, Montreal, QC, Canada, [5]Montreal Neurological Institute and Hospital, McGill University, Montreal, QC, Canada

2154 Hemodynamic correlates of changes in neuronal excitability: a simultaneous TMS and NIRS study
Zhengchen Cai[1], Giovanni Pellegrino[2], Amanda Spilkin[3], Alexis Machado[4], Thomas Vincent[5], Chifaou Abdallah[4], Jean-Marc Lina[6], Christophe Grova[3]
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2155 FNIRS Measurement of Cortical Activity in Young and Older Adults during Gait & Dual-Task Assignment
Amanda Spilkin[1], Zhengchen Cai[2], Chifaou Abdallah[3], Rachel Downey[1], Karen Li[4], Christophe Grova[5]
[1]Concordia University, Montreal, Quebec, [2]Multimoda Functional Imaging Lab, Department of Physics and PERFORM Centre, Concordia University, Montreal, Quebec, [3]McGill University, Montreal, Quebec, [4]PERFORM Centre, Concordia University, Montreal, Quebec, [5]. Multimodal Functional Imaging Lab, PERFORM Centre, Department of Physics, Concordia University, Montréal, Quebec

Non-BOLD fMRI

2005* Short Echo-Time fMRI using Magnetization Transfer Contrast
Jenni Schulz[1], Zahra Fazal[1], Riccardo Metere[1], José Marques[1], David G. Norris[1,2]
[1]Donders Institute, Radboud University, Nijmegen, Netherlands, [2]Erwin L. Hahn Institute for Magnetic Resonance Imaging, University Duisburg-Essen, Essen, Germany

2014 Layer-dependent BOLD/VAPER fMRI signal fluctuations show distinct cortical depth profiles
Arman Khojandi[1], Yuhui Chai[2], Daniel Handwerker[1], Linqing Li[3], Laurentius Huber[4], Peter Bandettini[1]
[1]National Institute of Mental Health, Bethesda, MD, [2]National Institute of Mental Health, Bethesda, MD, [3]National Institute of Mental Health, Bethesda, VA, [4]Maastricht University, Maastricht, Limburg

2040 Monte Carlo simulation of VASO fMRI from real microvascular angiograms of the mouse cortex
Élie Genois[1,2], Louis Gagnon[1,2], Michèle Desjardins[1,2]
[1]Université Laval, Québec, Québec, [2]Centre de recherche du CHU de Québec - Université Laval, Québec, Canada

2118 Rotated Stack of Spirals 3D RARE for Single-shot ASL Acquisition and Resting-State Analyses
Fanny Munsch[1], Manuel Taso[1], Li Zhao[2], Marc Lebel[3], Arnaud Guidon[4], John Detre[5], David Alsop[1]
[1]Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, [2]Children's National Medical Center, Washington, DC, [3]Global MR Applications and Workflow, GE Healthcare, Calgary, AB, [4]Global MR applications and workflow, GE Healthcare, Boston, MA, [5]University of Pennsylvania, Philadelphia, PA

2119 Development of a Non-invasive Functional Arterial MRI Sequence of the Posterior Cerebral Artery
Marco Caceres[1], Kevin Whittingstall[2], Guillaume Gilbert[3]
[1]Universite de Sherbrooke, Sherbrooke, Québec, [2]Universite de Sherbrooke, Sherbrooke, QC, [3]MR Clinical Science, Philips Healthcare, Markham, Ontario

Polarized light imaging (PLI)

2093 Determination and Visualization of Nerve Fiber Orientation Uncertainty in 3D Polarized Light Imaging
Nicole Schubert[1], Daniel Schmitz[1], Marius Nolden[1], Katrin Amunts[1,2], Markus Axer[1]
[1]Institute of Neuroscience and Medicine (INM-1), Research Centre Jülich, Jülich, Germany, [2]C. and O. Vogt Institute for Brain Research, Heinrich-Heine University Düsseldorf, Düsseldorf, Germany

Imaging Methods Other

2016 Relationship between apathy and the prefrontocaudate tract injury in patients with mTBI
Sung Ho Jang[1], Yousung Seo[2], Eunbi Choi[3]
[1]College of Medicine, Yeungnam University, Daegu, Daegu, [2]Yeungnam Univ. Hospital, DAEGU, [3]Yeungnam Univ. Hospital, Daegu, .

2019 MR Facility Quality Assurance: A publicly available protocol
John Pyles[1], Timothy Verstynen[1], Joerg Magerkurth[2], Nikolaus Weiskopf[3], Xavier Golay[4], Ben Inglis[5]
[1]BRIDGE Center, Dept. of Psych. and CMNI, Carnegie Mellon University, Pittsburgh, PA, USA, [2]Birkbeck-UCL Centre for Neuroimaging, University College London, London, UK, [3]Dept. of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [4]Institute of Neurology, University College London, Gold Standard Phantoms, London, UK, [5]Henry H. Wheeler, Jr. Brain Imaging Center, University of California, Berkeley, CA, USA

2025* Fast, quantitative myelin maps: Macromolecular pool fraction (MPF) using an optimized protocol
Kimberly Desmond[1], Tobias Wood[2], Sofia Chavez[1]
[1]Centre for Addiction and Mental Health (CAMH), Toronto, Ontario, Canada, [2]King's College, London, United Kingdom

2030 Reproducibility Assessment of Neuromelanin-Sensitive MRI Protocols for ROI and Voxelwise Analyses
Kenneth Wengler[1], Xiang He[2], Anissa Abi-Dargham[2], Guillermo Horga[1]
[1]Columbia University, New York, NY, [2]Stony Brook University, Stony Brook, NY

2059 Regulating subliminal neural activity in the fusiform face area: an fMRI-based neurofeedback study
Lucas Peek[1], Patrik Vuilleumier[1]
[1]University of Geneva, Geneva, Geneva

2060 Real-Time Z-Shimming for Magnetic Resonance Imaging of the Spinal Cord
Eva Alonso-Ortiz[1], Cyril Tous[2], Ryan Topfer[1], Julien Cohen-Adad[1]
[1]NeuroPoly Lab, Ecole Polytechnique, Montreal, Quebec, [2]Université de Montréal, Montreal, Quebec

2071 Dissimilarity of Functional Connectivity Reflects Effect of Participant's Motion in fMRI Study
Lejian Huang[1], Lili Yang[2], Bo Wu[2], Linyu Fan[2], Shishi Huang[2], Andrew Vigotsky[1], Marwan Baliki[3], Zhihan Yan[2], A. Vania Apkarian[1]
[1]Northwestern University, Chicago, IL, [2]Wenzhou Medical University, Wenzhou, Zhejiang, [3]Shirley Ryan AbilityLab, Chicago, IL

2085 Post-traumatic fatigue due to injury of the lower ventral ARAS in mild TBI
Sung Ho Jang[1], Mi Young Lee[2], Young Hyeon Kwon[3]
[1]College of Medicine, Yeungnam University, Daegu, Daegu, [2]Daegu Haany University, Gyeongsansi, North Gyeongsang Province, [3]Yeungnam University Hospital, Daegu, Daegu

2086 The neural networks between the medial PFC and the PCC and precuneus in the human brain: a DTT study
Sung Ho Jang[1], Jeong Pyo Seo[2], Min Kyeong Cho[3]
[1]College of Medicine, Yeungnam University, Daegu, [2]Dankook University, Daegu, [3]College of Medicine, Yeungnam University, Daegu

2087 Attention impairment due to injury of the ventrolateral prefrontal cortex in patients with mild TBI
Sung Ho Jang[1], Han Do Lee[2], Eun Bi Choi[3]
[1]College of Medicine, Yeungnam University, Daegu, Daegu, [2]Ulsan University of Science and Technology, Ulsan, Ulsan, [3]Department of Physical Medicine and Rehabilitation, College of Medicine, Yeungnam University, Daegu, Daegu

2096 Open and silent brain scanner for MRI and neuromagnetic measurements
Koos Zevenhoven[1], Iiro Iehto[1], Marko Havu[1], Antti Mäkinen[1], Petteri Laine[2], Juho Luomahaara[3], Mikko Kiviranta[3], Risto Ilmoniemi[1]
[1]Aalto University, Aalto, Finland, [2]MEGIN 0y, Helsinki, Finland, [3]VTT, Espoo, Finland

2106 Assessment of cortical gray matter myelin with quantitative inhomogeneous magnetization transfer
Fanny Munsch[1], Gopal Varma[1], Manuel Taso[1], Shahamat Tauhid[2], Olivier Girard[3], Guillaume Duhamel[3], Rohit Bakshi[2], David Alsop[1]
[1]Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, [2]Brigham and Women's Hospital, Harvard Medical School, Boston, MA, [3]Aix Marseille Univ, CNRS, Marseille, PACA

2122 Calibrated fMRI Sensitive to NMDA-Receptor Antagonist Ketamine Effects on Metabolism
Naomi Driesen[1], Peter Herman[2], Margaret Rowland[1], Garth Thompson[3], Maolin Qiu[2], George He[4], Peter Morgan[5], Andrea Diaz-Stansky[5], Sarah Fineberg[5], Daniel Barron[5], Lars Helgeson[6], Robert Chow[6], Ralitza Gueorguieva[7], Teo-Carlo Straun[8], John Krystal[1], Fahmeed Hyder[2]
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2123 Multi-Voxel Spectroscopic Imaging at Rest and Task: GABA and Glutamate Across Human Motor Cortices
Jacob Levenstein[1], Justin Andrushko[2], William Clarke[3], Catharina Zich[3], Adam Steel[4], Uzay Emir[5], Peter Bandettini[6], Charlotte Stagg[3]
[1]NIH / University of Oxford, Bethesda, MD, [2]University of Saskatchewan, Saskatoon, SK, [3]University of Oxford, Oxford, Oxfordshire, [4]Dartmouth College, Hanover, NH, [5]Purdue University, West Lafayette, IN, [6]National Institute of Mental Health, Bethesda, MD

2137 128 Channel Receive-Only Radio-Frequency Coil Design for High Resolution Brain Imaging
William Mathieu[1], Guangxing Li[1], Charbel Matta[2], Reza Farivar[2]
[1]Research Institute of the McGill University Health Centre, Montréal, Québec, [2]McGill University, Montréal, Québec

PERCEPTION, ATTENTION AND MOTOR BEHAVIOR

Attention: Auditory/Tactile/Motor

2200 Left-hemispheric network lateralization of alpha oscillations supports selective listening behavior
Mohsen Alavash[1], Sarah Tune[1], Jonas Obleser[1]
[1]University of Lübeck, Lübeck, Germany

2203 Can Brain Activity Predict Manual Dexterity Improvement after Surgery in Cervical Myelopathy?
Alicia Cronin[1], Sarah Detombe[2], Pat Doyle-Pettypiece[2], Sukhvinder Kalsi-Ryan[3,4], Mark Speechley[1], Neil Duggal[2], Robert Bartha[1]
[1]University of Western Ontario, London, Canada, [2]London Health Sciences Centre, London, Canada, [3]KITE Research Institute;TRI;UHN, Toronto, Canada, [4]University of Toronto, Toronto, Canada

2275 The gating of primary somatosensory oscillations is dependent on directed attention
Alex Wiesman[1], Tony Wilson[1]
[1]University of Nebraska Medical Center, Omaha, NE

Attention: Visual

2201 Cingulate cortex Zone II plays critical role in attentional system
Riho Nakajima[1], Masashi Kinoshita[1], Hirokazu Okita[2], Mitsutoshi Nakada[1]
[1]Kanazawa University, Kanazawa, Japan, [2]Kanazawa University Hospital, Kanazawa, Japan

2207 Functional connectivity dynamics capture attentional state dynamics
Monica Rosenberg[1], Dustin Scheinost[2], Abigail Greene[2], Emily Avery[2], Young Hye Kwon[2], Emily Finn[3], Ramachandran Ramani[4], Maolin Qiu[2], R. Todd Constable[2], Marvin Chun[2]
[1]University of Chicago, Chicago, IL, [2]Yale University, New Haven, CT, [3]National Institute of Health, Bethesda, MD, [4]University of Florida College of Medicine, Gainesville, FL

2212 The role of the viewpoint in the attentional guidance by memory: an fMRI study
Ilenia Salsano[1,2], Valerio Santangelo[2,3], Gabriella Antonucci[4], Emiliano Macaluso[2,5]
[1]PhD Program in Behavioral Neuroscience, Sapienza University of Rome, Rome, Italy, [2]Neuroimaging Laboratory, Santa Lucia Foundation IRCCS, Rome, Italy, [3]Department of Philosophy, Social Sciences & Education, University of Perugia, Perugia, Italy, [4]Department of Psychology, Sapienza University of Rome, Rome, Itlay, [5]ImpAct Team, Lyon Neuroscience Research Center, Lyon, France

2259 Consecutive High Influence of Salience Network Connectivity on Reaction Time over 30 Days
Yu-Lun Su[1], Hong-Yi Wu[2], Po-Yi Chen[2], Chi-Yun Liu[1], Ai-Ling Hsu, PhD[2], Yi-Ping Chao[3], Timothy J. Lane PhD[1], Changwei Wu[1]
[1]Taipei Medical University, Taipei, [2]National Taiwan University, Taipei, [3]Chang Gung University, Taoyuan City, Taoyuan City

2266 Visual saliency and stimulus relevance: effects on posterior and middle intraparietal sulcus
Tarik Jamoulle[1], Jolien Schaeverbeke[1], Qian Ran[1], Patrick Dupont[1], Rik Vandenberghe[1]
[1]Laboratory for Cognitive Neurology, Department of Neurosciences, KU Leuven, Leuven, Belgium

2278 Parasympathetic Arousal-Related Activity Associated With Attention During Cognitive Task Performance
Anita Barber[1], Majnu John[1], Pamela DeRosse[1], Michael Birnbaum[1], Todd Lencz[1], Anil Malhotra[2]
[1]Zucker Hillside Hospital, Glen Oaks, NY, [2]Zucker Hillside Hospital, Queens, NY

2283 Decoding the distribution of attention in the visual cortex
Armien Lanssens[1], Ronald Peeters[2], Hans Op de Beeck[1], Celine Gillebert[1]
[1]Department of Brain and Cogntion, KU Leuven, Leuven, Vlaams-Brabant, [2]Department of Radiology, University Hospitals Leuven; Department of Imaging & Pathology, KU Leuven, Leuven, Belgium

2292 Acute Depletion of Dopamine Precursors: Brain Functional Connectivity and Attentional Bias Effects
Amanda Elton[1], Monica Faulkner[1], Donita Robinson[1], Charlotte Boettiger[1]
[1]UNC Chapel Hill, Chapel Hill, NC

2297 A multivariate game theory – based analysis of line bisection anatomical correlates
Monica Toba[1], Melissa Zavaglia[2], Caroline Malherbe[2], Tristan Moreau[3], Federica Rastelli[3], Anna Kaglik[3], Romain Valabregue[4], Pascale Pradat-Diehl[5], Claus Hilgetag[6], Antoni Valero-Cabré[7]
[1]ICM and UPJV, Paris and Amiens, France, [2]Institute of Computational Neuroscience, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, [3]ICM, Paris, France, [4]ICM - Brain and Spine Institute, Paris, Ile de France, [5]Salpetriere Hospital, Paris, France, [6]Institute of Computational Neuroscience, Hamburg, Hamburg, [7]Institut du Cerveau et de la Moelle epiniere (ICM), Paris, Paris

Chemical Senses: Olfaction, Taste

2187* Early processing of odor valence in the human olfactory bulb
Behzad Iravani[1], Artin Arshamina[1], Johan Lundström[1,2,3]
[1]Karolinska Institutet, Stockholm, Sweden, [2]Monell Chemical Sense Center, Philadelphia, PA, [3]Stockholm University Brian Imaging Center, Stockholm, Sweden

2210 Alterations of brain grey matter and olfactory bulb volumes in early blind individuals
Christine Chouinard-Leclaire[1], Simona Manescu[1], Johannes Frasnelli[2], Franco Lepore[1]
[1]Université de Montréal, Montreal, Québec, [2]Université du Québec à Trois-Rivières, Trois-Rivières, Québec

2247 Using functional near-infrared spectroscopy to examine orbitofrontal cortex (OFC) response to sweet
Eunice Chen[1], Michael McCloskey[1], Melanie French[1], Tess Wilde[2], Theodore Huppert[3]
[1]Temple University, Philadelphia, PA, [2]Swarthmore College, Swarthmore, PA, [3]University of Pittsburgh, Pittsburgh, PA

2281 Functional connectivity impairment of the olfactory-trigeminal network in Parkinson's disease.
Cécilia Tremblay[1,2], Behzad Iravani[2], Émilie Lafontaine[1], Florian Fischmeister[3], Jason Steffener[4], Johan Lundström[2], Johannes Frasnelli[1,5]
[1]Université du Québec à Trois-Rivières, Trois-Rivières, Québec, Canada, [2]Karolinska Institutet, Stockholm, Sweden, [3]University of Graz, Graz, Vienna, [4]University of Ottawa, Ottawa, Ontario, [5]Sacré-Coeur Hospital of Montreal, Montreal, Canada

Consciousness and Awareness

2185* Reconfiguration of network hubs under anesthesia may predict recovery of consciousness
Catherine Duclos[1,2], Danielle Nadin[1,2], Yacine Mahdid[1,2], Alexander Rokos[1,2], Mohamed Badawy[1,2], Justin Létourneau[1,2], Caroline Arbour[3,4], Gilles Plourde[1,2], Stefanie Blain-Moraes[1,2]
[1]McGill University, Montreal, Quebec, Canada, [2]McGill University Health Centre, Montreal, Quebec, Canada, [3]Université de Montreal, Montreal, Quebec, Canada, [4]Centre intégré de santé et de services sociaux du Nord-de-l'Île-de-Montréal, Montreal, Quebec, Canada

2195* Connectome Harmonic Signatures of Consciousness in Anaesthesia and Disorders of Consciousness
Andrea Luppi[1], Jakub Vohryzek[2,3], Selen Atasoy[2,3], Pedro Mediano[1], Michael Craig[1], Ioannis Pappas[4,1], Ram Adapa[1], Paola Finoia[1], Guy Williams[1], Judith Allanson[1], John Pickard[1], David Menon[1], Morten Kringelbach[2,3], Emmanuel Stamatakis[1]
[1]University of Cambridge, Cambridge, United Kingdom, [2]University of Oxford, Oxford, United Kingdom, [3]Aarhus University, Aarhus, Denmark, [4]University of California - Berkeley, Berkeley, CA

2198 Is interoceptive attention during breath-counting meditation reflected in functional connectivity?
Shoko Yamamoto[1], Tomoyuki Hiroyasu[1], Satoru Hiwa[1]
[1]Department of Biomedical Sciences and informatics, Doshisha University, Kyoutanabe, Kyoto, Japan

2216 Insula as the cortical gate of consciousness: a task fMRI study in propofol-induced unresponsiveness
Zirui Huang[1], Anthony Hudetz[1]
[1]Department of Anesthesiology and Center for Consciousness Science, University of Michigan, Ann Arbor, MI

2227 Microstructural Profiles of Thalamocortical Connection in Patients with Disorder of Consciousness
Weihao Zheng[1], Xufei Tan[2], Yi Zhang[1], Benyan Luo[2], Dan Wu[1]
[1]Zhejiang University, Hangzhou, Zhe Jiang, [2]The First Affiliated Hospital of Zhejiang University, Hangzhou, Zhe Jiang

2253 Weak Connections in Functional Brain Networks Improve Classification of Consciousness States.
Yacine Mahdid[1], Catherine Duclos[2], Stefanie Blain-Moraes[3], Kathleen Berkun[1], Matthew Brookes[4], Jason Da Silva Castanheira[5], Lucrezia Liuzzi[6], George Mashour[7]
[1]McGill, Montréal, Quebec, [2]Montreal General Hospital, Montreal, Quebec, [3]McGill University, Montreal, Quebec, [4]University of Nottingham, Nottingham, UK, [5]McGill Univeristy, Montreal, Quebec, [6]Sir Peter Mansfield Imaging Center, Nottingham, Nottinghamshire, [7]Center for Consciousness Science and Department of Anesthesiology University of Michigan Medical Sch, Ann Arbor, MI

2282 Temporal Windows for Selective Integration on Internal and External Information in Conscious Brain
Minkyung Kim[1,2], Hyoung-Kyu Kim[1,2], Zirui Huang[1,2], UnCheol Lee[1,2]
[1]University of Michigan Medical School, Ann Arbor, MI, [2]Center for Consciousness Science, University of Michigan, Ann Arbor, MI

2289* Predicting depth of sedation from latent structure in whole-brain cortical networks
Corson Areshenkoff[1], Joseph Nashed[2], Matthew Hutchison[3], Melina Hutchison[4], Ravi Menon[5], Stefan Everling[5], Jason Gallivan[2]
[1]Queens University, Kingston, Ontario, [2]Queen's University, Kingston, Ontario, [3]Biogen Inc., Cambridge, MA, [4]Massachusetts Eye and Ear Infirmary, Boston, MA, [5]Robarts Research Institute, London, Ontario

2291 A Novel Template-based ICA Approach Reveals Psilocybin-Induced Changes in Thalamic Connectivity
Andrew Gaddis[1], Mary Beth Nebel[2], Amanda Mejia[3], Stewart Mostofsky[2], Roland Griffiths[1,4], Frederick Barrett[1,4]
[1]Johns Hopkins University School of Medicine, Department of Psychiatry and Behavioral Sciences, Baltimore, MD, [2]Kennedy Krieger Institute, Baltimore, MD, [3]Indiana University, Bloomington, IN, [4]Center for Psychedelic and Consciousness Research, Johns Hopkins University, Baltimore, MD

2307 Topographic Brain Network Properties Predict Emergence from Disorders of Consciousness
Danielle Nadin[1,2], Catherine Duclos[2,1], Yacine Mahdid[1,2], Alexander Rokos[1,2], Mohamed Badawy[1,3], Justin Létourneau[1,3], Caroline Arbour[4,5], Gilles Plourde[1,3], Stefanie Blain-Moraes[1,2]
[1]McGill University, Montreal, QC, Canada, [2]Montreal General Hospital, McGill University Health Center Research Institute, Montreal, QC, Canada, [3]Montreal Neurological Hospital and Institute, McGill University Health Center, Montreal, QC, Canada, [4]Université de Montreal, Montreal, QC, Canada, [5]Centre de recherche, CIUSSS du-Nord-de-l'Île-de-Montréal, Montreal, QC, Canada

2310 Tractography investigation in acute TBI patients using automatic bundle reconstruction
Chiara Maffei[1], Yelena Bodien[2], Bram Diamond[1,3], Anastasia Yendiki[1], Brian Edlow[3,1], Samuel Snider[3]
[1]Athinoula A. Martinos Center, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA, [2]Center for Neurotechnology and Neurorecovery Department of Neurology, Massachusetts General Hospita, Boston, MA, [3]Center for Neurotechnology and Neurorecovery Department of Neurology, Massachusetts General Hospital, Boston, MA

2314 Network Principles of Various Induction and Recovery during General Anesthesia
Hyoungkyu Kim[1], Minkyung Kim[2], UnCheol Lee[1]
[1]University of Michigan, Ann Arbor, MI, [2]University of Michigan Medical School, Ann Arbor, MI

Perception: Auditory/ Vestibular

2172 Altered FC of the thalamus in tinnitus patients is correlated with symptom alleviation after therapy
Han Lv[1], Zhenchang Wang[1], Qian Chen[1], Shusheng Gong[1]
[1]Beijing Friendship Hospital, Capital Medical University, Beijing, CA

2182 EEG correlates of experimentally induced auditory illusions
Maryam Faramarzi Yazd[1], André Aleman[2], Branislava Ćurčić-Blake[3], Christoph Herrmann[4]
[1]University of Oldenburg (Carl von Ossietzky Universität Oldenburg), Oldenburg, Germany, [2]Department of Neuroscience, University Medical Center Groningen, Groningen, Groningen, [3]University Medical Center Groningen, Groningen, Groningen, [4]University of Oldenburg, Oldenburg, Oldenburg

2218 Structural plasticity of the vestibular system in ischemic pontomedullary stroke – A VBM study
Julian Conrad[1], Marco Duering[2], Peter Zu Eulenburg[2], Marianne Dieterich[2]
[1]LMU Munich, Munich, Germany, [2]LMU Munich, Munich, Bavaria

2231 Processing sound in sleep: exploring periodicity encoding across brain states using MEG.
Hugo Jourde[1], Alix Noly-Gandon[2], Keelin Greenlaw[1], Emily Coffey[1]
[1]Concordia University, Montréal, Québec, [2]McGill University, Montréal, Québec

2246 Plasticity with cochlear implant use in children deaf in one ear
Hyo-Jeong Lee[1,2], Daniel Smieja[3], Melissa Polonenko[3], Sharon Cushing[4], Blake Papsin[5], Karen Gordon[6]
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2265 Voice patches in macaques and humans: an anatomo-functional and representational comparison
Régis Trapeau[1], Clementine Bodin[1], Bastien Cagna[1], Julien Sein[1], Bruno Nazarian[1], Melina Cordeau[1], Olivier Coulon[1], Pascal Belin[1]
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2276 Improvement of speech-in-noise perception by audio to tactile sensory substitution
Katarzyna Ciesla[1,2], Tomasz Wolak[2], Artur Lorens[2], Henryk Skarzynski[2], Amir Amedi[1]
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Perception: Multisensory and Crossmodal

2188 Functional Brain Reorganization Following Spaceflight: A Resting-state fMRI Study
Heather McGregor[1], Nichole Gadd[2], Igor Kofman[2], Yiri De Dios[2], Patricia Reuter-Lorenz[3], Scott Wood[4], Ajitkumar Mulavara[2], Jacob Bloomberg[4], Rachael Seidler[1]
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2196 Exploring Effects of Visual Based Activities Using DTI and Resting State Imaging
Audrey Wack[1], Ferdinand Schweser[2], Konstantinos Slavakis[2], Kathleen McNerney[3], Sarah Muldoon[2], Cheryl McGranor[2], Erin Kelly[4], Robert Miletich[2], David Wack[2]
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2205 Electrophysiological Correlates of Audiovisual Binding in Simultaneity Perception
Phillip Johnston[1,2], Claude Alain[1,2], Anthony Randal McIntosh[1,2]
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2215 Distinct sensory representations in amodal networks: Topographic maps representing haptic numerosity
Shir Hofstetter[1], Yuxuan Cai[1], Ben Harvey[2], Serge Dumoulin[1]
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2220* Decoding texture from audio-haptic sources: an fMRI study
Caroline Landelle[1], Jeanne Caron-Guyon[2], Bruno Nazarian[3], Jean-Luc Anton[3], Julien Sein[3], Michel Amberg[4], Frederic Giraud[4], Jeremy Danna[5], Anne Kavounoudias[6]
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2221 Investigation of image and sound processing of the human brain using multisensory stimuli
Minyoung Jung[1], Wang-Won Lee[1], Niv Lustig[1], Min-Seok Choi[1], Jong-Hwan Lee[1]
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2222 Investigation of Multimodality from Unimodal Classification Using Deep Neural Network: Image & Text
Juhyeon Lee[1], Changha Lee[1], Hyun-Chul Kim[1], Jinsu Kim[1], Sungman Jo[1], Minyoung Jung[1], Jong-Hwan Lee[1]
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2235 Brain Networks Influencing Obstacle Avoidance in Congenitally Blind Participants
Daniel-Robert Chebat[1], Fabien Schneider[2], Maurice Ptito[3]
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2248 Did I Just See What I Heard? – Audiovisual Integration During a Music-in-Noise Task Using fMRI
Sebastian Dresbach[1], Peer Herholz[2], Robert Zatorre[3], Emily Coffey[4]
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2255 Naturalistic stimulation in sensory-deprived individuals reveals different reorganization mechanisms
Francesca Setti[1], Giacomo Handjaras[1], Matteo Diano[2], Valentina Bruno[2], Carla Tinti[2], Pietro Pietrini[1], Francesca Garbarini[2], Andrea Leo[1], Emiliano Ricciardi[1]
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2257 Voxel-wise modelling demonstrates sound envelope representation in primary visual cortex
Alice Martinelli[1], Giacomo Handjaras[1], Monica Betta[1], Andrea Leo[1], Luca Cecchetti[1], Pietro Pietrini[1], Emiliano Ricciardi[1], Davide Bottari[1]
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2260 Theta-band oscillations in temporal cortex drive perception in naturalistic audiovisual speech
Raphaël Thézé[1], Mehdi Gadiri[1], Louis Albert[2], Antoine Provost[2], Anne-Lise Giraud[1], Pierre Mégevand[1,3]
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2274* **How the onset of blindness affects the interplay between crossmodal and intramodal plasticity**
Stefania Mattioni[1,2], Mohamed Rezk[1], Ceren Battal[1,2], Jyothirmayi Vadlamudi[1], Olivier Collignon[1,2]
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Perception: Pain and Visceral

2173 **Alterations in Internetwork Functional Connectivity among Patients with Chronic Migraine**
Kirill Markin[1], Dmitriy Tarumov[2], Artem Trufanov[3], Daria Frunza[3]
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2176 **Dynamic causal modelling of the reduced habituation of laser evoked potentials in migraine**
Iege Bassez[1], Katia Ricci[2], Eleonora Vecchio[2], Marianna Delussi[2], Frederik Van de Steen[1], Marina de Tommaso[2], Daniele Marinazzo[1]
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2186 **Neuropsychological models of breathlessness**
Sarah Finnegan[1], Olivia Faull[2], Catherine Harmer[1], Mari Herigstad[3], Najib Rahman[4], Andrea Reinecke[1], Kyle Pattinson[5]
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2193 **Resting State and DTI Imaging of Chronic Pain Disability.**
David Corey[1], Robert Miletich[2], David Wack[2]
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2204 **The neural representation of pain in value-based decision-making.**
Michel-Pierre Coll[1], Hocine Slimani[1], Sienna Sangra[1], Pierre Rainville[2], Mathieu Roy[1]
[1]McGill University, Montreal, Quebec, [2]University of Montreal, Montreal, Quebec

2211 **Augmented Nociceptive Processing Accompanies Greater Pain Sensitivity in Adolescents: an fMRI Study**
Han Tong[1,2], Thomas Maloney[1], Michael Payne[1], Susmita Kashikar-Zuck[1], Robert Coghill[1], Marina Lopez-Sola[1]
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2217 **Brainstem and cingulate texture abnormalities in medically-refractory trigeminal neuralgia patients**
Hayden Danyluk[1,2], Abdullah Ishaque[3,4], Sanjay Kalra[5,4], Tejas Sankar[2]
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2226 **Mega-analysis categorically shows acute pain intensity representation is distributed.**
Bogdan Petre[1], Lauren Atlas[2], Stephan Geuter[3], Marieke Jempa[4], Leonie Koban[5], Marina Lopez-Sola[6], Anjali Krishnan[7], Mathieu Roy[8], Choong-Wan Woo[9], Tor Wager[1]
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2233 **Brain white matter predicts the risk of transition to chronic pain across sites**
Paul Geha[1,2], Arslan Farooqi[3]
[1]Department of Psychiatry in University of Rochester, Rochester, NY, [2]Yale University, New Haven, CT, [3]Department of Engineering, Rochester, NY

2234 **Multi-modal Cerebral Biomarkers of Chronic Low Back Pain**
Bidhan Lamichhane[1], Dinal Jayasekera[1], Tyler Frank[1], Justin Zhang[1], Derayvia Grimes[1], Ammar Hawasli[1]
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2236 **Cortical and subcortical delineation of nociceptive and vestibular domains**
Judita Huber[1,2], Maxine Ruehl[3], Virginia Flanagin[1,2,4], Peter Zu Eulenburg[1,5]
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2237 **Whole CNS imaging of pain modulation: from spinal cord to brain**
Valeria Oliva[1], Rosalyn Moran[2], Anthony Pickering[1], Jonathan Brooks[1]
[1]University of Bristol, Bristol, United Kingdom, [2]King's College London, London, United Kingdom

2238 **Temporal understanding of neural mechanisms in pain prediction and perception**
Suhwan Gim[1,2], Choong-Wan Woo[1,2]
[1]Sungkyunkwan University, Suwon, Korea, Republic of, [2]Center for Neuroscience Imaging Research, Institute for Basic Science, Suwon, Korea, Republic of

2239 **Brain Measures of Offset Analgesia using Functional Near-Infrared Spectroscopy**
Hendrik Santosa[1], Benedict Alter[2], Ajay Wasan[2], Theodore Huppert[1]
[1]University of Pittsburgh, Pittsburgh, PA, [2]University of Pittsburgh Medical Center, Pittsburgh, PA

2240 **Cortical gray matter volume predicts pain relief following radiosurgery for trigeminal neuralgia**
Peter Shih-Ping Hung[1], Alborz Noorani[1], Mojgan Hodaie[1]
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2241 **Spatio-temporal dynamic of pain perception modulated by mindfulness intervention: An EEG study**
Emilia Iannilli[1], Jonathan McKinley[1], Maria Hancu[1], Ilknur Telkes[1], Marisa DiMarzio[1], Michael Gillogly[1], Lucian Williams[1], Stefana Stan[1], Julie Pilitsis[1]
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2242 **Pain relief reverses hippocampal abnormalities in trigeminal neuralgia**
Alborz Noorani[1], Peter Shih-Ping Hung[1], Jia Y. Zhang[2], Mojgan Hodaie[1]
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2244 The Structure and Function of the Nucleus Accumbens is a Potential Biomarker of Chronic Pain
Meena M. Makary[1,2,3], Pablo Polosecki[4], Guillermo Cecchi[5], Ivan DeAraujo[6], Daniel Barron[7], R. Todd Constable[7], Peter Whang[7], Donna Thomas[8], Hani Mowafi[9], Dana Small[7], Paul Geha[10]
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2250 Structural pathways traversing the splenium play a role in pain perception
Guillermo Aristi[1], Christopher O'Grady[1], Manyoel Lim[1], Amita Goyal[1], Steven Beyea[1], Chris Bowen[1], Javeria Hashmi[1]
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2251 Symptoms of Havana Syndrome are linked with alterations in white matter microstrcuture.
Guillermo Aristi[1], Chris Bowen[1], Margaux Ross[1], Cynthia Cailkin[1], Alon Friedman[1], Javeria Hashmi[1]
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2254 Individual variability of regional multivariate patterns in pain prediction
Lada Kohoutova[1], Tor Wager[2], Choong-Wan Woo[3]
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2256 Chronic pain is not associated with accelerated structural brain aging
Peter Sörös[1], Carsten Bantel[1]
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2267 Individual Patterns of Functional Connectivity in Chronic Back Pain and Chronic Migraine
Astrid Mayr[1], Anne Stankewitz[1], Vasudev Devulapally[1], Pauline Jahn[1], Andreas Straube[1], Enrico Schulz[1]
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2268 Neurobiological Evidence of Pain Vulnerability in Children
Chelsea Kaplan[1], Andrew Schrepf[1], Ishtiaq Mawla[1], Eric Ichesco[1], Kevin Boehnke[1], Tony Larkin[1], Saige Rutherford[1], Alexandre Tsodikov[1], David Williams[1], Afton Hassett[1], Daniel Clauw[1], Steven Harte[1], Richard Harris[1]
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2269 Cortical thickness mediates the association between pain and sleep in older adults
Soamy Montesino Goicolea[1], Pedro Valdes-Hernandez[1], Joseph Riley III[1], Roger Fillingim[1], Adam Woods[1], Ronald Cohen[1], Eric Porges[1], Yenisel Cruz-Almeida[1]
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2277 Neural foundations of chronic pain: An ALE meta-analysis of regional brain activation
Noah Waller[1], Semra Aytur[1], Kimberly Ray[2], Donald Robin[1]
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2287 Effect size and reliability of the Neurological Pain Signature
Xiaochun Han[1], Lauren Atlas[2], Luke Chang[1], Leonie Koban[3], Elizabeth Reynolds Losin[4], Mathieu Roy[5], Choong-Wan Woo[6], Tor Wager[1]
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2293 Functional connectivity between the amygdala and pain-related brain regions in youth with FAPD
Natoshia Cunningham[1], Hadas Nahman-Averbuch[2], Gregory Lee[2], Christopher King[2], Robert Coghill[3]
[1]Michigan State University, Grand Rapids, MI, [2]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, [3]Cincinnati Children's Hospital, Cincinnati, OH

2294 Distinct Brain Oscillatory Patterns during Conditioned Pain Modulation in Chronic Pain
Hyerang Jin[1], Bart Wltjes[2], Mathieu Roy[3], Sylvain Baillet[1], Cecile de Vos[2]
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2295 Facilitated Cortical Nociceptive-Evoked Responses in Subjects With Extensive Sensorimotor Training
Anna Zamorano[1], Federico Arguissain[1], Boris Kleber[2], Peter Vuust[2], Herta Flor[3], Thomas Graven-Nielsen[1]
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2308 Age-related changes in pain processing and resting state functional connectivity
Pedro Valdes-Hernandez[1], Soamy Montesino Goicolea[1], Roger Fillingim[1], Joseph Riley III[1], Adam Woods[1], Ronald Cohen[1], Eric Porges[1], Yenisel Cruz-Almeida[1]
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Perception: Tactile/Somatosensory

2178 Reproducibility of corticokinematic coherence in EEG
Harri Piitulainen[1], Mathieu Bourguignon[2], Mia Illman[3], Veikko Jousmäki[4]
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2192 Whole brain mapping of somatosensory responses in the common marmoset
Justine Clery[1], Yuki Hori[1], David Schaeffer[1], Kyle Gilbert[1], Joseph Gati[1], Ravi Menon[1], Stefan Everling[1]
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2197 Shared response modelling of somatosensory digit representations using 7T fMRI
Oliver Contier[1,2], Esther Kühn[3], Michael Hanke[2,4]
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2228 Hand & face somatotopy shown by MRI-safe vibrotactile stimulation with new soft pneumatic actuators
Sanne Kikkert[1], Harshal Sonar[2], Jamie Paik[2], Nicole Wenderoth[1]
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2288 The Comparison of LLL and Electrical Stimulation Induced Brain Activations: a rodent fMRI study
Changwei Hsieh[1], Yun-An Huang[2], Chao-Hsien Hsieh[3,4], Shen-Mou Hsu[3], Changwei Wu[5]
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Perception: Visual

2174 Retinotopic cortical mapping as an objective functional monitoring tool of macular therapy
Allan Hummer[1], Markus Ritter[2], David Linhardt[1], Anna Ledolter[2], Michael Woletz[1], Maximilian Pawloff[2], Ursula Schmidt-Erfurth[2], Christian Windischberger[1]
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2175 Parcel-based eigenvector centrality reveals configuration of cerebral network during movie-watching
Akitoshi Ogawa[1]
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2177 Binocular Rivalry Dominance & Suppression Preferentially Rely on Dorsal & Ventral Stream Connections
Elizabeth Bock[1], Sylvain Baillet[2], Jeremy Fesi[1], Janine Mendola[1]
[1]McGill University, Montreal, Quebec, [2]McGill University, Montreal

2180* Investigating Neurophysiological Sources of Multimodal Neuroimaging in Humans
Fatemeh Ebrahiminia[1,2,3], Morteza Mahdiani[4,1], Seyed-Mahdi Khaligh-Razavi[1]
[1]Royan Institute, Tehran, Iran, [2]Tehran University, Tehran, Iran, [3]Cognitive Sciences & Technologies Council, Tehran, Iran, [4]Amirkabir University, Tehran, Iran

2181 Investigating the laminar profile of predictive signalling in human V1 with 7T fMRI
Chantal Miller[1], Alice Hickling[1], Joost Haarsma[1], Liliana Galindo[1], Colleen Rollins[1], Catarina Rua[2], Christopher Rodgers[2,3], Floris de Lange[4], Peter Kok[5], Jane Garrison[1], Graham Murray[1]
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2183 Neural activity in extensive cortical and subcortical networks supports visual object recognition
Max Levinson[1], Ella Podvalny[1], Steven Baete[1], Biyu He[1]
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2184 Neurochemical Changes in Retinal Degeneration
Aislin Sheldon[1], Jasleen Jolly[2,3,1], I. Betina Ip[1], Ivan Alvarez[1], Sophie Templer[1], Adam Steel[4], William Clarke[1], Saad Jbabdi[1], Robert MacLaren[2,3], Susan Downes[2,3], Holly Bridge[1]
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2190 Progression of visual pathway white matter degeneration in glaucoma
Shereif Haykal[1], Nomdo Jansonius[1], Frans Cornelissen[1]
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2191 Representational distinction of numbers, letters, and novel characters in the "number form area"
Darren Yeo[1,2], Courtney Pollack[3], Rebecca Merkley[4,5], Daniel Ansari[5], Gavin Price[1]
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2199 Animacy of perspective-taking objects modulates neural representations of mentally rotated objects
Jane Han[1,2], Insub Kim[3], Won Mok Shim[2,1]
[1]Sungkyunkwan University, Suwon, Gyeonggi-do, Korea, Republic of, [2]Center for Neuroscience Imaging Research, Institute for Basic Science, Suwon, Gyeonggi-do, Korea, Republic of, [3]Stanford University, Stanford, CA

2202 Do Unsupervised Deep Neural Networks Model Neural Activity Patterns in Visual Brain Areas?
Anna Truzzi[1], Rhodri Cusack[1]
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2232 Experimental achromatopsia treatment reveals the extant of cortical recovery in adulthood
Ayelet McKyton[1], Eyal Banin[1], Netta Levin[1]
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2258 Face and body emotion perception across development and associated white matter microstructure
Isobel Ward[1], Erika Raven[1], Stephan de la Rosa[2], Sila Genc[1], Chantal Tax[1], Maxime Chamberland[1], Derek Jones[1], Christoph Teufel[1], Elisabeth von dem Hagen[1]
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2261 FMRI reveals anterior V1 activation in a retinitis pigmentosa patient
Allan Hummer[1], Markus Ritter[2], David Linhardt[1], Maximilian Pawloff[2], Ursula Schmidt-Erfurth[2], Christian Windischberger[1]
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2270 Involvement of magnocellular and parvocellular pathways in reading and visual recognition
Pedro Paz-Alonso[1], Garikoitz Lerma-Usabiaga[1], Maddi Ibarbia[1]
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2271 Depth-cue invariance as a fundamental principle of visual object recognition
Luiza P. Volpi[1], Hassan Akhavein[1], Reza Farivar[1]
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2273 A bilateral model of congenital prosopagnosia – connectivity between FFA and ATL
Roman Kessler[1], Paula Albert i Gracanea[1], Kristin Marie Zimmermann[1], Kirsten Schmidt[1], Andreas Jansen[1]
[1]Laboratory for Multimodal Neuroimaging, Marburg, Hessen

2279 Anticipatory responses to cross-category predictive cues: fMRI on face and place sensitive areas
Lena Schliephake[1], Marlen Roehe[1,2], Nina Heins[1,2], Ima Trempler[1,2], Ricarda Schubotz[1,2]
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2284 Neuroimaging data from multiple sources in PRoNTo v3.0: spatiotemporal patterns of face processing
Isabel David[1,2], Jessica Schrouff[1], Tong Wu[1,3], Konstantinos Tsirlis[1], Gilles Pourtois[4], Christophe Phillips[5], Janaina Mourao-Miranda[1]
[1]University College London, London, United Kingdom, [2]Federal Fluminense University, Niteroi, RJ, Brazil, [3]Imperial College London, London, United Kingdom, [4]Ghent University, Ghent, Belgium, [5]University of Liege, Liège, Belgium

2285 Predicting conscious perception in patients with striate cortex lesions: A MEG study
Vanessa Hadid[1], Annalisa Pascarella[2], Tarek Lajnef[1], Michèle MacLean[1], Dang K. Nguyen[3], Karim Jerbi[1], Franco Lepore[1]
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2286 Rhythmic sampling of visual features in the brain during object recognition
Laurent Caplette[1], Karim Jerbi[1], Frédéric Gosselin[1]
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2290 Population receptive fields in V1 are altered in glaucoma
Melissa Wright[1], Krish Singh[1], Simon Rushton[1], D. Samuel Schwarzkopf[2], James Morgan[1], Slawomir Kusmia[1], Tony Redmond[1]
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2298* Genetic influence is linked to cortical morphology in category-selective areas of visual cortex
Nooshin Abbasi[1], John Duncan[2], Reza Rajimehr[2]
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2299 Ultra-High Field fMRI Reveals Top-Down Modulations to Identical Visual Input in High-Level Cortices
Logan Dowdle[1], Geoffrey Ghose[1], Kamil Ugurbil[1], Essa Yacoub[1], Luca Vizioli[1]
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2301 Shared experience drives non-uniform prototypical spatial signals
Angela Zhang[1], Sebastien Proulx[1], Yiran Chen[1], Reza Farivar[1]
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2304 Recurrent Neural Pathways in Motion and Shape Visual Perception: a TMS Study
Nataliia Zhozhikashvili[1]
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2306 Visual cortex activation in subjects with artificially impaired vision: a model of optic neuritis
Pavel Hok[1], Jan Kremláček[2], Tereza Svrčinová[1], František Odstrčil[3], Irena Šínová[4], Martina Rybáriková[4], Anna Arkhipova[1], Ivona Korčáková[5], Jan Valošek[5], Jan Mareš[1], Petr Hluštík[1], Petr Kaňovský[1], Martin Šín[4]
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2309* The brainlife.io cloud services for human visual-field mapping & population receptive field estimate
David Hunt[1], Bradley Caron[2], Steven O'Riley[1], Soichi Hayashi[3], Franco Pestilli[1]
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2312 N170 as a brain representation for generic real-world visual expertise: a review and meta-analysis
Minghao Dong[1], Yifei Chen[2], Xuemei Xie[3]
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2313 Differential roles of the two face networks in processing identity and social information
Rui Dai[1], Sheng He[2]
[1]Chinese Academy of Sciences, Beijing, China, [2]Department of Psychology, Minneapolis, MN

2315 Reconstruction of continuous motion direction from fMRI data
Riccardo Barbieri[1], Felix Töpfer[1,2], Joram Soch[1,3], Carsten Bogler[1,3], John-Dylan Haynes[1,3,4,5,6,2,7,8]
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Sleep and Wakefulness

2179 BOLD & Physiological Correlates of Microsleeps and Awakening
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2189 A daytime nap benefits spatial and motor skills but a night of sleep enhances cognitive strategies
Nicholas van den Berg[1], Balmeet Toor[2], Alyssa Pozzobon[3], Julia Al-Kuwatli[1], Laura Ray[4], Stuart Fogel[5]
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2206 Toward a Complete Taxonomy of Resting State Networks Across Wakefulness and Sleep
Evan Houldin[1], Zhuo Fang[2], Laura Ray[3], Adrian Owen[4], Stuart Fogel[5]
[1]Western University, London, Ontario, [2]University of Ottawa, Ottawa, Ontario, [3]Sleep Research Unit, The Royal's Institute of Mental Health Research, Ottawa, Ontario, [4]University of Western Ontario, London, Ontario, [5]University Of Ottawa, Ottawa, Ontario

2208* Non-REM Sleep Network Connectivity Represents an Altered, Not a Reduced State of Consciousness

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2213 Alterations in overnight changes of Glutamate+Glutamine levels in children and adolescents with ADHD

Carina Volk[1], Valeria Jaramillo[1], Melanie Furrer[1], Mirjam Studler[1], Ruth O'Gorman Tuura[1], Reto Huber[1]
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2214 Shared genetic etiology between sleep duration, behavior, and cortical thickness

Masoud Tahmasian[1], Fateme Samea[2], Habibolah Khazaie[3], Mojtaba Zarei[2], Shahrzad Kharabian[4], Felix Hoffstaedter[4], Julia Camilleri[4], Peter Kochunov[5], B.T. Thomas Yeo[6], Simon Eickhoff[7], Sofie Valk[8]
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2225 Extracting Beat Information in Sleeping Brain

Yan Wang[1], Yuanye Wang[1], Qihong Zou[1], Huan Luo[1], Jia-Hong Gao[1]
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2229 Concurrent fMRI-EEG to study maintenance of wakefulness in healthy and sleep-prone subjects

Jari Gool[1,2,3], Rolf Fronczek[2,3], Ysbrand Van der Werf[1], Gert Jan Lammers[2,3]
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2243* The impact of sleep deprivation on cortical functional integration and cognition.

Nathan Cross[1], Florence Pomares[1], Aude Jegou[1], Alex Nguyen[1], Aurore Perrault[1], Dylan Smith[1], Umit Aydin[1], Christophe Grova[1], Thien-Thanh Dang-Vu[1]
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2245 Exploring how auditory stimulation during sleep affects brain activity using MEG

Alix Noly-Gandon[1], Hugo Jourde[2], Keelin Greenlaw[2], Emily Coffey[2]
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2249 Altered Cognitive Control Activations After Moderate Sleep Loss

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2262 Increased Default-Mode Network Connectivity with Fatigue and Sleepiness Following a Brain Injury

Erlan Sanchez[1,2], Caroline Arbour[1,2], Héjar El-Khatib[1,2], Andree-Ann Baril[3], Hélène Blais[2], Nadia Gosselin[1,2]
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2263 Dynamic functional maps capture new features of information integration and consciousness in sleep

Anjali Tarun[1,2], Danyal Wainstein[3], Virginie Sterpenich[4], Laurence Bayer[5], Lampros Perogamvros[4], Nikolai Axmacher[3], Sophie Schwartz[4], Dimitri Van De Ville[1,2]
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2264 Continuous enhancement of default mode network activity during deep sleep

Lang Qin[1,2], Su Shu[1], Shuqin Zhou[1], Jing Xu[3], Yayan Yin[4], Qihong Zou[1], Jia-Hong Gao[3]
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2280 EEG and behavioural correlates of mild sleep deprivation and vigilance

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2296 EEG scaling properties in individuals with high vs low dream recall: A machine learning study

Tarek Lajnef[1], Thomas Thiery[1], Louis Leconte[1], Golnoush Alamian[1], Jean Marc Lina[2], Jean-Baptiste Eichenlaub[3], Marie Perrine Ruby[4], Karim Jerbi[5]
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2302 The relationship between cognitive ability and BOLD activation across sleep-wake states.

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2303 Towards a characterization of the loss of wakefulness using a time varying connectivity approach

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2305 A sequence of activity across thalamic nuclei occurs at arousal from NREM sleep

Beverly Setzer[1], Nina Fultz[1], Giorgio Bonmassar[2], Laura Lewis[1]
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2311 Slow wave sleep is associated with structural markers of brain health
Andree-Ann Baril[1], Alexa Beiser[1], Charles DeCarli[2], Erlan Sanchez[3], Susan Redline[4], Daniel Gottlieb[4], Emer McGrath[5], Hugo Aparicio[1], Sudha Seshadri[6], Matthew Pase[7], Jayandra Himali[6]
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Perception and Attention Other

2194 Changes in resting-state functional connectivity by cognitive fatigue
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2209 Electroacupuncture alters insular cortex functional connectivity in obesity patients during food-cue
Yang He[1], Karen Deneen[1], Ganggang Lv[1], Jia Wang[1], Zhida Zhang[1], Yuanyuan Ren[2], Yi Zhang[1]
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2219 Cortical processing of interoceptive prediction errors using inspiratory resistive loads
Olivia Faull[1], Sebastian Rieger[2], Stephanie Marino[1], Laura Nanz[1], Roger Luechinger[3], Franciszek Hennel[3], Klaas Pruessman[3], Lars Kasper[1], Sandra Iglesias[1], Klaas Enno Stephan[1]
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2223 Functional Connectivity of Amygdala in a Simple and Short Picture Viewing Task
Yasunori Kotani[1], Nobukiyo Yoshida[2], Yoshimi Ohgami[1], Akira Kunimatsu[2], Shigeru Kiryu[3], Yusuke Inoue[4]
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2224 Connectivity Dynamics of the Right Anterior Insula Revealed by fMRI-constrained EEG Source Analysis
Yoshimi Ohgami[1], Yasunori Kotani[1], Nobukiyo Yoshida[2], Akira Kunimatsu[2], Shigeru Kiryu[3], Yusuke Inoue[4]
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PHYSIOLOGY, METABOLISM AND NEUROTRANSMISSION

Cerebral Metabolism and Hemodynamics

2316 Quantification of Brain Oxygen Extraction Fraction (OEF) Using QSM and a Hyperoxic Challenge
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2317 Modified resting state fMRI protocol for improved denoising and assessment of vascular function
Rachael Stickland[1], Apoorva Ayyagari[1], Kristina Zvolanek[1], Stefano Moia[2], Molly Bright[1]
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2320 Whole Brain Aerobic Glycolysis Indices Measured with MRI and 18FDG PET: Preliminary Validation
Shengwen Deng[1], Dengrong Jiang[2], Crystal Franklin[1], Wei Zhang[1], Betty Heyl[1], Michael O'Boyle[1], Glenn Fulbright[1], Paul Jerabek[1], Hanzhang Lu[2], Peter Fox[1]
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2321 Effect of vascular oxygen heterogeneity on the BOLD fMRI signal : a simulation study
Mathieu Walsh[1,2], Élie Genois[1,2], Louis Gagnon[1,2], Michèle Desjardins[1,2]
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2325 How to Best Model the fMRI Carbon Dioxide Response Function: A Comparison of Three Methods
Azin Esmaelbeigi[1,2], Seyed Mohammad Shams[1,2], Jean Chen[1,2]
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2326 Regional and depth-dependence variations of cortical blood-flow assessed with high-resolution ASL
Manuel Taso[1], Fanny Munsch[1], Li Zhao[2], David Alsop[1]
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2327 Non-linear characteristics of the negative blood oxygen-level dependent response in human brain
Jung Hwan Kim[1], Amanda Taylor[1], Natasha Del La Rosa[1], David Ress[1]
[1]Baylor College of Medicine, Houston, TX

2328* Metabolic basis of human brain network nodes in resting-states of eyes-closed and eyes-open
Yury Koush[1], Robin de Graaf[1], Peter Herman[1], Douglas Rothman[1], Fahmeed Hyder[1]
[1]Yale University, New Haven, CT

2332 Multi-session CVR variability within functional networks
Stefano Moia[1], Vicente Ferrer Gallardo[2], Rachael Stickland[3], Eneko Uruñuela[4], Maite Termenon[5], César Caballero-Gaudes[4], Molly Bright[3]
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2334 Interaction between Electroencephalographic and Cerebral Metabolic Activity in Neonatal Asphyxia
Rasheda Chowdhury[1], Zamzam Mahdi[1], Beatrice Desnous[1], Bohdana Marandyuk[2], Imen Benhmida[2], Guylaine Aubé[2], Elana Pinchefsky[1], Ala Birca[1], Mathieu Dehaes[1]
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2335 Study of the connector hubs metabolism within dual intertwined architecture in healthy controls
Fatemeh Razavipour[1], Kangjoo Lee[2,3], Stephane Blinder[1], Jean-Paul Soucy[3], Stephan Grimault[1], Habib Benali[4,1], Claudine J Gauthier[1,5], Christophe Grova[1,3]
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2337 Cerebral perfusion is related to blood pressure recovery after exercise in healthy older adults
Brittany Intzandt[1], Tudor Vrinceanu[2], Fatemeh Razavipour[3], Kristell Pothier[4], Karen Li[3], Anil Nigam[5], TTM Vu[6], Nicolas Berryman[7], Louis Bherer[5], Claudine Gauthier[3]
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2338 The role of glutamate in the cerebral blood flow response to poikilocapnic hypoxemic hypoxia
Martyn Ezra[1], Kyle Pattinson[1]
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2339 Hemodynamic changes of common EEG patterns in critically ill patients: a pilot EEG-fNIRS study
Ali Kassab[1], Denahin Toffa[1], Manon Robert[1], Frédéric Lesage[2], Ke Peng[1], Dang K. Nguyen[1]
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2342 Changes in Brain Hemodynamics and Metabolism in Preterm Infants Born at 29-36 Weeks of Gestation
Olivia Beaulieu[1], Gabriel Cote Corriveau[2], Rasheda Chowdhury[3], Marie-Michèle Gagnon[4], Melanie Gagnon[4], Marie-Noelle Simard[5], Thuy Mai Luu[2], Mathieu Dehaes[6]
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Neurophysiology of Imaging Signals

2322 BOLD signal-based perfusion lag mapping in monkey brain
Toshihiko Aso[1], Chihiro Yokoyama[1], Takuya Hayashi[1]
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2331* Cortical silencing results in paradoxical fMRI over-connectivity
Carola Canella[1], Federico Rocchi[1], Shahryar Noei[1], Daniel Gutierrez-Barragan[1], Ludovico Coletta[1], Alberto Galbusera[1], Marco Pagani[1], Massimo Pasqualetti[2], Giuliano Iurilli[1], Stefano Panzeri[1], Alessandro Gozzi[1]
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2333 Irregular heart rhythms unmask cardiac modulation of BOLD signal from respiratory influences
Csaba Orban[1], Jonathan Power[2], Michael W.L. Chee[1], B.T. Thomas Yeo[1]
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2341 Dexmedetomidine, used for studying neurovascular coupling, induces seizures in rats but not in mice.
Aleksandra Bortel[1], Roland Pilgram[1], Ze Shan Yao[1], Amir Shmuel[1]
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Pharmacology and Neurotransmission

2323 The role of serotonin in the dynamics of reversal learning: a drift-diffusion learning model
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2324 Unravelling the effects of methylphenidate on the dopaminergic and noradrenergic functional circuits
Ottavia Dipasquale[1], Arjun Sethi[2], Daniel Martins[1], Mattia Veronese[1], Swen Hesse[3,4], Michael Rullmann[3,4], Federico Turkheimer[1], Neil Harrison[5], Mitul Mehta[1], Mara Cercignani[6]
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2330 Psilocybin induces drug-level dependent disruption of resting-state network functional connectivity
Martin Madsen[1], Brice Ozenne[1], Dea Stenbæk[1], Sophia Armand[1], Maja Marstrand-Jørgensen[1], Albin Arvidsson[1], Kristian Linnet[2], Sys Johansen[2], Gitte Knudsen[3], Patrick Fisher[1]
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Physiology, Metabolism and Neurotransmission Other

2318 A physiologically-based computational model to study brain lactate exchanges
Milad Soltanzadeh[1,2], Habib Benali[1,2], Solenna Blanchard[3]
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2319 OT downregulates rewarding of novel metaphorical compliments in ovulation via dACC-OFC connectivity

Zhao Gao[1,2], Xiaole Ma[3], Xinqi Zhou[4], Benjamine Becker[4], Fei Xin[4], Lei Xu[4], Feng Zhou[4], Keith Kendrick[5]
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2336 Compact co-alignment of cortical spatiotemporal spontaneous events and evoked responses

Roland Pilgram[1], Aleksandra Bortel[1], Amir Shmuel[1]
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2340 The influence of biofeedback on cardiac regulation and prefrontal functional connectivity at rest

Andy Schumann[1], Feliberto De la Cruz[2], Stefanie Köhler[1], Lisa Brotte[3], Karl-Jürgen Bär[2]
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