24TH ANNUAL MEETING OF THE ORGANIZATION FOR HUMAN BRAIN MAPPING

POSTER LISTINGS

June 17–21, 2018

SUNTEC CONVENTION AND EXHIBITION CENTRE | SINGAPORE
Poster Listings

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**POSTER CATEGORY KEY**

**Poster Numbers #1000-2972**

- **Display Days:** Your poster should be displayed on your assigned poster board Tuesday-Thursday.
- **Set-Up Time:** Please set-up your poster from 8:00 – 9:00 am on Tuesday morning ONLY. **Posters placed before this time, will be removed.**
- **Poster Stand-By Times:**
  - Even numbered posters between #1000-2972 will stand-by and present their poster on Tuesday, June 18, Wednesday, June 20 and Thursday, June 21 from 12:45 – 13:45.
  - Odd numbered posters between #1001-2972 will stand-by and present their poster on Tuesday, June 18, Wednesday, June 20 and Thursday, June 21 from 13:45 – 14:45.
- **Poster Reception:** Thursday, June 21 from 16:00 – 17:30. You may stand by your poster during this time.
- **Poster Teardown:** Presenters should remove their posters IMMEDIATELY after the poster reception on Thursday night at 17:30.

**IMPORTANT! Posters not removed by the end of the posted teardown time will be recycled.**

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To view full abstract text and ePosters, visit www.aievolution.com/hbm1801
ABSTRACTS

Tuesday, June 19, Wednesday, June 20, and Thursday, June 21

* Indicates poster will also be presented during an Oral Session.

All Information listed, including author affiliations, appear as submitted during the Call For Abstracts.

BRAIN STIMULATION METHODS

Deep Brain Stimulation

1000 Effective subthalamic stimulation modulates risk-reward trade-off during sequential gambling
Friederike Immer1,2, Andreas Horn1, David Meder1, Wolf-Julian Neumann1, Philipp Plettig3, Gerd-Helge Schneider2, Hartwig Siebner1, Andrea Kühn2,3
1Department of Neurology, Charité – Universitätsmedizin Berlin, Berlin, Germany, 2Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Berlin, Germany, 3Department of Biological Psychology and Cognitive Neuroscience, Freie Universität Berlin, Berlin, Germany

1001 Brain connectivity change with deep brain stimulation and levodopa treatment in Parkinson’s disease
Karsten Mueller1, Robert Jech2, Filip Růžička1, Štefan Holiga1, Tommasa Ballardini1, Ondrej Bezdicek2, Harald Müller1, Josef Vymazal2, Evden Růžička1, Matthias Schroeter1, Dubas-Urgošík2
1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 2Department of Neurology and Center of Clinical Neuroscience, Charles University in Prague, Prague, Czech Republic

1002 PET study of subthalamic deep brain stimulation and incidental sequence learning in Parkinson’s disease
Marijan Jahanshahi1,2, Leonoro Wilkinson3, Gary Hatton3, Yen Tai3, Nicola Pavese6, Catherine Jones6, Patricia Limosin2, David Brooks2
1UCL Institute of Neurology, London, United Kingdom, 2Clinical Hospital of Chengdu Brain Science Institute, MOE Key Lab for Neuroinformation, University of Electronic Science and Technology of China, Chengdu, China, 3UCL Institute of Neurology, London, United Kingdom, 4Hammersmith Hospital, Imperial College, London, United Kingdom, 5Institute of Neurosciences, University of Newcastle, Newcastle, United Kingdom, 6Department of Psychology, Cardiff University, Cardiff, United Kingdom

1003 Delayed Feedback Approach for Desynchronizing Closed-Loop Deep Brain Stimulation
Oleksandr Popovyk1, Borys Lysyansky2, Peter Tass2
1Institute of Neuroscience and Medicine - INM-7, Research Center Juelich, Juelich, Germany, 2Department of Neurosurgery, Stanford University, Stanford, CA

1004 FMRI Hemodynamic Response for Deep Brain Stimulation
Suresh Jothi1, Radhika Madhavan2, Saikat Saha3, Marisa DiMarzio1, Eric Fiveland2, Julia Pruska1, Michael Gillooly1, Jeffery Ash4, Jennifer Durphy5, Julie Plitts1, Ileana Hanca2
1General Electric Global Research, Bangalore, Karnataka, 2General Electric Global Research, Bangalore, India, 3Albany Medical Center, Albany, United States, 4General Electric Global Research, Niskayuna, NY, 5Albany Medical Center, Niskayuna, NY, 6Albany Medical Center, Albany, NY

Direct Electrical/Optogenetic Stimulation

1005 Mapping the functional and anatomical signatures of chemogenetically modulated neurons in the insula
Joannes Grandjean1, Francesca Mandino1, Ling Yun Yeow1, Chai Lean Teoh1, Chris Jun Hui Ho1, Amalina Attia1, Lai Guan Ng2, Malini Olivo1, Yu Fu3, Akhila Balachander2
1Singapore Bioimaging Consortium, Singapore, Singapore, 2Singapore Immunology Network, Singapore, Singapore

1006 Insular function with emotional experience and interoceptive awareness using the awake surgery
Kazuya Motozawa1, Satoshi Umeda2, Yuri Terasawa3, Atsushi Natsume1, Toshihiko Wakabayashi1
1Nagoya University Graduate School of Medicine, Nagoya, Japan, 2Department of Psychology, Keio University, Tokyo, Japan

1007 Think of Me: a resting-state fMRI and meta-analytic study of forced thinking
Daniel Barron1,2,3, Ani Liu2, Daniel Friedman2, Hugh Wang2, Patricia Dugan2, Thomas Thesen2
1Yale University, Hamden, CT, 2NYU, New York City, 3NYU, New York City, United States

Invasive Stimulation Methods Other

1008 Electroconvulsive therapy induces age-dependent volume increase in the human dentate gyrus
Akihiro Takebayashi1,2,3, Jun Ku Chung1, Eric Piltman1, Mallar Chakravarty1, Kyosuke Sawada1, Jinichi Hirano1, Bun Yamagata1, Ariel Graft-Guerrero2, Taisho Kishimoto1, Masaru Mimura1
1Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan, 2Centre for Addiction and Mental Health, University of Toronto, Toronto, Canada, 3Douglas Mental Health University Institute, Montreal, Quebec

Non-invasive Electrical/tDCS/tACS/tRNS

1009 Understanding the effects of transcranial direct current stimulation on response inhibition
Lucia Li1, Ines Violante2, Ewan Ross2, Robert Leech2, Adam Hampshire3, David Opitz2
1Neural Plasticity and Neurorehabilitation Laboratory, University of Southern California, Los Angeles, CA, 2Computational Neuro-Rehabilitation Laboratory, University of Southern California, Los Angeles, CA, 3Neurology Institute, University of Toronto, Toronto, Canada

1010 Exploring tDCS-induced changes in brain network connectivity based on the neural target using HDtDCS
Stephanie Lefebvre1, Mayank Jag2, Nicolas Schweighofer2, Danny JJ Wang2, Sook-Lee Liew3,4
1Neural Plasticity and Neurorehabilitation Laboratory, University of Southern California, Los Angeles, United States, 2Laboratory of Neuro Imaging Keck School of Medicine of USC University of Southern California, Los Angeles, CA, 3Computational Neuro-Rehabilitation Laboratory, University of Southern California, Los Angeles, CA, 4Laboratory of Neuro Imaging, Keck School of Medicine of USC, Los Angeles, CA, 5Neural Plasticity and Neurorehabilitation Laboratory, University of Southern California, Los Angeles, CA
1011 Assessing the impact of conductivity uncertainties on the accuracy of TES electric field calculation

Selma Kemmerer1, Teresa Schuhmann1, Sanne ten Oever1, Tom de Graaf1, Peter de Weerd1, Alexander Sack1
1Maastricht University, Maastricht, Netherlands

1012 Can theta tACS modulate response inhibition in healthy young adults at behavioral level?

Hannah Brauer1,2, Navah Kadish1, Anya Pedersen1, Michael Sinatchkin1, Vera Moliadze1
1Institute of Medical Psychology and Medical Sociology, UKSH, University of Kiel, Kiel, Germany
2Department of Child and Adolescent Psychiatry and Psychotherapy, ZIP gGmbH, UKSH, University of Kiel, Kiel, Germany
3Clinical Psychology and Psychotherapy, Institute of Psychology, University of Kiel, Kiel, Germany

1013 Assessing the impact of conductivity uncertainties on the accuracy of TES electric field calculation

Guilherme Saturning1, Axel Thielischer1, Kristoffer Madsen1, Thomas Knösche4, Konstantin Weiser1,2
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2Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre, Denmark
3Technical University of Denmark, Department of Applied Mathematics and Computer Science, Kgs. Lyngby, Denmark
4Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1014 Imaging stimulation to modulate resting state functional MRI connectivity (rsfMRI) of the DMN

Daniel Keesser1, Jana Wörsching2, Valerie Kirsch1, Temmuz Karali1, Birgit Ertl-Wagner1, Frank Padberg2
1Department of Psychiatry, Department of Radiology, LMU, Munich, Germany
2Department of Psychiatry, LMU, Munich, Germany
3Department of Neurology, LMU, Munich, Germany
4Department of Radiology, LMU, Munich, Germany

1015 Critical Role of the Right VLPCF in Emotional Regulation of Social Exclusion: A TDCS Study

Zhenhong He1
1University of Manchester, Manchester, United Kingdom

Non-invasive Magnetic/TMS

1016 Theta burst stimulation of TPJ – a new potential target for depression treatment

Martin Tik1, Henrýk Bukowski2, Anna-Lisa Schuler1, Allan Hummer1, Claus Lamm2, Christian Windischberger1
1Medical University of Vienna, Vienna, Austria
2University of Vienna, Vienna, Austria

1017 The Necessity of Individualized TMS Targets: Inter-subject Variability of DLPCF Activation

Nicole Geissberger4, Martin Tik1, Ronald Sladky1, Michael Woletz1, André Hoffmann1, Matic Prinčič1, Christian Windischberger1
1Medical University of Vienna, Vienna, Austria
2University of Zurich, Zurich, Switzerland

1018 Repetitive TMS reduced functional connectivity between the stimulation site and default-mode-network

Yuanqi Shang1, Da Chang1, Jian Zhang1, Donghui Song2, Wei Peng1, Ze Wang1,2
1Center for Cognition and Brain Disorders, Department of Psychology, Hangzhou Normal University, Hangzhou, China
2Temple University, Philadelphia, PA

1019 Intermittent transcranial magnetic stimulation (iTBS) improves post-stroke aphasia

Rodolphe Nenert1, Jane Allendorfer2, Amber Martin1, Joseph Griﬃs1, Victor Sung1, Harrison Walker1, Amy Amara1, Victor Mark1, Xiaohua Zhou1, Jerzy Szaflarski1
1UAB, Birmingham, AL
2University of Alabama at Birmingham, Birmingham, AL

1020 Effect of theta burst stimulation on activations in visual network: fMRI objects recognition paradigm

Martin Gajdos1, Lubomíra Anderková2, Irena Rektorová2
1Masaryk University, Brno, Czech Republic
2CEITEC Masaryk University, Brno, Czech Republic

Non-Invasive Stimulation Methods Other

1021 Real-time fMRI amygdala neurofeedback training lowers PTSD symptoms with hippocampus volume increase

Masaya Misaki1, Beni Mulyana1,2, Raquel Phillips1, Vadim Zotev1, Chung-Ki Wong1, Brent Wurfe1,2,3, Frank Krueger1, Matthew Feldner4, Jerzy Badurko4
1Laurence Institute for Brain Research, Tulsa, OK
2School of Computer Engineering, University of Oklahoma, Tulsa, OK
3Laureate Psychiatric Clinic and Hospital, Tulsa, OK
4School of Systems Biology, George Mason University, Fairfax, VA

1022 EEG study on the effect of transcutaneous vagal nerve stimulation on central noradrenergic activity

Christopher Warren1, Katianna-Daphne Tona2, Lineke Ouwerkerk2, Jos Bosch3, Sander Nieuwenhuis2
1Utrecht University, Utrecht, Netherlands
2University of Utrecht, Utrecht, Netherlands
3University of Amsterdam, Amsterdam, Netherlands

1023 Photoactivation effects on subliminally enhanced cognitive conﬂict

Adina Minc1
1University of Oradea, Oradea, Romania

1024 Gentle rocking stimulation impacts the regulation of sleep in poor sleepers

Aurore Perrault1, Sophie Schwartz2, Laurence Bayer2
1University of Geneva, Geneva, Switzerland
2Center for Sleep Medicine - HUG, Geneva, Switzerland

1025 Transcranial Static Magnetic Field Stimulation (tSMS) of the Human Supplementary Motor Area

Jose Angel Pineda-Pardo1, Ignacio Obeso1, Michele Dileone1, Bryan Strange2,3, José Angel Obeso1, Antonio Oliviero1, Guglielmo Foffani1
1CINAC, Hospital Universitario HM Puerta del Sur, Universidad CEU-San Pablo, Madrid, Spain
2Laboratory for Clinical Neuroscience, Centre of Biomedical Technology, Technical Univ. of Madrid, Madrid, Spain
3Department of Neuroimaging, Reina Sofia Centre for Alzheimer’s Research, Madrid, Spain
4Hospital Nacional de Parapléjicos, Toledo, Spain

1026 Image Distortion in 7 Tesla and its significance for high-field Amygdala neurofeedback

Johan Van der Meer1, Lydia Heilrung2, Myung-Ho In3, Florian Gottig1, Viola Borchardt4, Martin Walter5
1Queensland Institute of Medical Research, Brisbane, Australia
2University of Zurich, Zurich, Switzerland
3Mayo Clinic, Rochester, United States
4Clinical Affective Neuroimaging Laboratory (CANLAB), Magdeburg, Germany
5University of Oulu, Oulu, Finland
6Eberhard Karls University, Tübingen, Germany

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1027 Reversible disruption of amygdala and anterior cingulate cortex using ultrasound neurostimulation

Dravide Folliot1, Lennart Verhagen2, Charlotte Constans3, Rogier Mars2,3, Pierre Pouget1, Jean-François Aubry4, Matthew Rushworth5, Jerome Salle6

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4Institut Langevin Ondes et Images, ESPCI ParisTech, CNRS, INSERM, Paris, France, 
5Department of Radiation Oncology, University of Virginia, Charlottesville, VA

1028 Structural-functional outcomes of MR guided focused ultrasound thalamotomy in essential tremor

Jose Angel Pineda-Pardo1, Raul Martinez-Fernandez2, Rafael Rodriguez-Rojas3, del Alamo Marta2,
Hernández-Fernández Frida4, Guglielmo Foffani5, Michele Dileone6, Lydia Vela7, José Ángel Obeso6

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4CINAC, Hospital Universitario HM Puerta del Sur, Universidad CEU-San Pablo, Mostoles, Madrid, Spain

1029* Focal non-invasive disruption of resting-state connectivity using ultrasound neurostimulation

Lennart Verhagen1, Davide Folliot1, Rogier Mars2,3, Charlotte Constans3, Pierre Pouget1, Jean-François Aubry1, Matthew Rushworth5, Jerome Salle6

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4Institut Langevin Ondes et Images, ESPCI ParisTech, CNRS, INSERM, Paris, France

TDCS

1030 Predicting response to bilateral tDCS over M1: An EEG and TMS study

Gabrielle Klees-Themens1, Félix Larochelle-Brunet1, Florence Bovet1, Elizabeth Jacob-Brassard1, Hugo Théoret1

1Université de Montréal, Montréal, Québec, Canada

1031 A Systematic Analysis of Simulations for tDCS Montages Applied in Reading

Sagarika Bhattacharjee1, Rajan Kashyap1, John E. Desmond2, Brenda Rapp1, Kenichi Oishi5, Hiroki Moto1, Hui Ai1, Pengfei Xu1, Shaozheng Qin1, Yuejia Luo1, Dandan Zhang4

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1032 Functional Connectivity Mediates Language Outcomes under Transcranial Direct Current Stimulation

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TMS

1033 MRI Predictors of Response to Prefrontal Transcranial Direct Current Stimulation in Depression

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1034 Online effects of tDCS on prefrontal cortex metabolites in healthy subjects

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1035 Improvement of speech fluency by transcranial direct current stimulation in adults who stutter

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1036 Neuroplasticity and network connectivity of the motor cortex following stroke

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1037 Enhanced DLPFC activity is associated with suppression of memory but not emotion: a TDCS pilot study

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1038 Remote Activation of the Dopaminergic System by Prefrontal Transcranial Direct Current Stimulation

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1039 Short-Interval Intracortical Inhibition with Multi-Locus Transcranial Magnetic Stimulation

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1040 The effect of cold pain on the short-interval intracortical inhibition

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1041 Individual DLPFC Dose-Response Profiles through concurrent TMS/fMRI
Martin Tik1, Michael Wolezcz2, Matic Prinčič2, Nicole Geissberger1, Anna-Lisa Schuler1, Allan Hummer1, Christian Windischberger1
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1042 Navigation for Multi-Locus Transcranial Magnetic Stimulation
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1043 TMS reveals a “premotor” and “motor” phenotype in the human prefrontal cortex
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1044 Dynamic Changes of the Fronto-hippocampus Functional Connectivity after Theta-Burst Stimulation
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1045 Revealing brain activity in response to magnetic stimulation of the DLPFC with concurrent TMS-fMRI
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1046 TMS coil orientation affects spatial distribution of motor-evoked potentials
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1047 Real-time EEG source state triggered Transcranial Magnetic Stimulation with millisecond resolution
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1048 Prefrontal Cortex Control of Autonomic Stress Response is Improved with High-Dose Theta-Burst Tms
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1049 TMS target tracking in TMS-fMRI experiments
Michael Wolezcz1, Martin Tik1, Matic Prinčič2, Anna-Lisa Schuler1, Christian Windischberger1
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1050 Relationship between TMS and HI-MRS measures of GABA and Glx following Lorazepam administration
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1051 Novel 3D printed headset for navigation of brain stimulation and brain recording
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1052* Inhibitory TMS differentially affects brain network communication depending on the stimulation site
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1053 Resting State Changes Following Adjuvant Transcranial Magnetic Stimulation in Voice Treatment
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DISORDERS OF THE NERVOUS SYSTEM

1054 Disentangling craving, valence and arousal in nicotine dependence with parametric fMRI
Andres Manolli1, Amelie Haug1, Ronald Sladky2, Lea Hula1, Matthias Kirschner1, Anneette Brühl1, Erich Schiffritz1, Boris Quednow2, Marcus Herdener1, Frank Scharnowski1,2
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1055 Cannabis Addiction: Lasting Shift between Ventral versus Dorsal Striato-Frontal Functional Networks
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1056 Association between myeloarchitecture and functional topology of cortex and behavioral relevance
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1057 Support vector machine classifier reveals that variations in subject fMRI maps encode impulsivity
Harshwardhan Deshpande1,2, Jonathan Lisinski1, Sarah Snider1, Mikhail Koffarnus1, Warren Bickel1, Stephen LaConte1,2
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1058* Down-regulation activity patterns of smoking cue reactivity prevents smoking behaviors
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1061 The effects of adolescent ketamine exposure on brain morphology and function in chronic users
Yi-Hsuan Liu1, Chio-Chung Hung1, Chu-Chung Huang1, i-Ting Lee1, Chun-Ming Chen1, Jeng-Ren Duann2,3, Tony Szu-Hsien Lee4, Chiang-shan R. Li5,6, Neil G. Muggleton6,7,8,9, Ching-Po Lin10,11,12
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1062 Cannabis and craving: a DTI investigation of cerebellar white matter
Julia Sweigert1, Melissa Reilly1, Gabriella Greco1, Mary Lammer1, Natalia Kleinhaus1
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1063 Increased Intrinsic Ventral Tegmental Area Connectivity Following Multimodal Marijuana Cue Exposure
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1064 Genetic Risk Factor for Smoking Alters Reward Processing in Non-Smokers
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1065 Reduction of subcortical volumes in patients with alcohol dependence
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1066 Reduced cortical thickness of insular cortex in heavy smokers
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1067 Sex effects of cigarette smoking on caudate and amygdala volume
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1068 Altered brain network in subjects with smartphone dependence
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1069 Characterization of the amygdalo-hypothalamic circuit response to food cues in the absence of hunger
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1070 Opioid antagonist treatment modulates brain responses to monetary reward
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1071 Effect of neurofeedback training in the neural activity of the insular subregions in chronic smokers
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1072 Neuroimaging biomarkers of clinical improvement after rTMS treatment in cocaine addiction
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1073 The recognition of facial emotions is affected in regular marijuana users
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1074 Function connectivity analysis of administered cannabis use in resting state networks
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1075 Dysconnectivity of corticostriatal circuitry in methamphetamine-dependent patients with psychosis
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1076 Real-time neurofeedback as an add-on to standard treatment in patients with alcohol use disorder
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1077 Shifts in the Functional Topography of Frontal Cortex-Striatum Connectivity in Alcohol Use Disorder
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1078 Nicotine dependence and acute nicotinic stimulation modulate attention but not inhibitory control
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1079* Amygdala dysfunction encodes the shift from `liking' to `wanting' in nicotine use disorder
Amelie Hauag1, Andrei Manoliu2, Cindy Lor3, Ronald Sladky4, Lea Hulko5, Matthias Kirschner1, Annette Brüh6, Erich Seifritz7, Boris Queenow8, Marcus Hersder2, Frank Scharnowski9
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1080 Behavioral inhibition and neural alcohol cue-reactivity in ADHD and alcohol use disorder
Sarah Gerhardt1, Mathias Luderer1, Esther Sabouns1, Rahila Nuriyeva2, Georg Meyer zu Schwabedissen3, Johanna Seidt1, Oliver Hennig4, Barbara Alm1, Denk Hermann1, Wolfgang Sommer1, Falk Kiefer1, Sabine Vollstadt-Klein3
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1081 Cannabis Dependently Influences Male and Female Users: An MRS Study
Sharlene Newman1, Hu Cheng1, Ashley Schnakenberg-Martin1, Brian O'Donnell1
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1082 Striatal dopamine receptor 2 and 3 availability in Alcohol Use Disorder
Gianni Spitta2, Tobias Gleich1, Jürgen Gallinat2,1, Ralph Buchert1, Kristin Zacharias1, Oisin Butler3
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1083 Data Fusion to Investigate Multimodal MRI Patterns Associated with Chronic Heavy Marijuana Use
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1084 Interactions of Sex and Alcohol Use Disorder in Functional Connectivity of Theory of Mind Networks
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Alzheimer’s Disease and Other Dementias

1085 Fiber specific markers of white matter lesions in dementia
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1086 The Anterior-Posterior Disconnection of Subjective Memory Impairment in Resting State
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1087 The Orientation System in AD/MCI: An EEG Microstate Analysis
Ammun Dafni1, Shlomzion Kahana-Merhavi1, Shahar Arzy2
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1088 A New Correlation Analysis to Capture the Neuroanatomical Features Related to Amyloid Deposition
Chenfei Ye1, Marilyn Albert1, Timothy Brown2, Johnny Hsu2, Ting Mo1, Brian Caffo1, Michael Miller3, Susumu Mori2, Kenichi Oishi3
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1089 Clinicopathophysiology of α7 nicotinic receptor in Meynert cholineric regions in aging and dementia
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1090 Latent Factors Underlying Atrophy, Behavioral and Tau Heterogeneity in Alzheimer’s Disease
Nambo Suri1, Elizabeth Morris1, Jianzhong Chen1, Mert Sabuncu1, 2, B. T. Thomas Yeo1, 3, 4, 5, 6, 7, 8, 9
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1091 NODDI Highlights Promising New Markers In Presymptomatic C9orf72 Carriers
Junhao Wen1,2, Hui Zhang1, Daniel C. Alexander1,2, Alexandre Routier1,4, Daisy Rimnac1,3, Marion Mouat1, Jiaying Zhang2, Olivier Colliot1,2, Isabelle Le Berre1,3, Anne Bertrand1,2, 3, 4, 5, 6, 7, 8, 9

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1092* Rare genetic events in sporadic Alzheimer’s disease: a network propagation approach
Marzia Antonella Scelsi1, Juan Eugenio Iglesias1, Jonathan Schott1, Sebastien Ourselin1, Andre Altmann1
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EEG-based neurophysiological correlates of hallucinations in Alzheimer’s disease
Meenakshi Dauwan2, Mascha Linszen1, Alina Lemstra3, Philip Scheltens3, Cornelis Stam3, Iris Sommer4
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Region-specific Detection of White Matter Hyperintensity in Preclinical Alzheimer’s Disease
Dan Wu1, Marilyn Albert1, Kenichi Oishi1, Anja Soldan1, Corinne Pettigrew1, Michael Miller1, Susumu Mori1
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1096 Cerebral blood flow, white matter signal abnormalities, and cortical thinning in MCI
Chan-Mi Kim1, Rachel Alvarado1, Kimberly Stephens1, Hsiao-Ying Wey2, Danny JJ Wang2, David Salat1
1MGH/MIT/HMS Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, 2Laboratory of Neuro Imaging, Keck School of Medicine of USC, Los Angeles, CA
Identification of the early stage of Alzheimer’s disease by integrating sMRI and rs-fMRI
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1098 Local resting state alterations during the development of Alzheimer’s disease in the DELCODE cohort
Coraline Metzger1,2,3, Martin Dyrb1, Daniel Bittner1, Xiaochen Hu4, Frank Jessen2, Stefan Teipel4, Michel Grathé2, Oliver Peters4, Felix Menne2, Manuel Fuentes4, Josef Priller4, Eike Spruth5, Christiano Franke1, Anja Schneider4, Klaus Fliessbach4, Barbara Kotter4, Jens Wiltfang1, Claudia Bartels6, Katharina Bürger2, Cihan Catak2, Ingo Klimm4, Judith Henf4, Christoph Laske4, Martina Buchmann4, Annika Spottke4, Manuela Thelen4, Michael Heneka5, Frederic Brorsson6, Alfredo Ramirez6, Michael Wagner6, Steffen Wolsfgruber6, Sandra Roeseke6, Ingo Frommann6, Alexander Polcher7, Laura Dobisch7, Emrah Duezel8
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1099 Relation between fMRI Eigenvector Centrality and CSF biomarkers for AD in cognitively healthy adults
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Identification of the early stage of Alzheimer’s disease by integrating sMRI and rs-fMRI
Seyed Hani Hojjati1, Ata Ebrahimzadeh1, Ali Khazaee2, Abbas Babajani-Feremi2
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Single-subject classification of pre-symptomatic FTD gene carriers using multimodal MRI
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1101 Differential severity-dependent contributions of brain abnormalities to memory deficits in the AD Fang Ji1, Ofer Pasternak1, Eric Kwun Kei Ng1, Joanna Su Xian Chong1, Siwei Liu1, Liwen Zhang1, Hee Youn Shim1, Ying Min Loke1, Boon Yeow Tan2, Narayanaswamy Venketasubramanian3, Christopher Li-Hsian Chen1, Juan Zhou1,2,3
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1102 Atrophy of the posterior part of the Nucleus basalis Meynert in amyloid positive SD
Shumel Li1, Marcel Daamen1, Steffen Wolfsgruber1, Angelika Schmittt1, Ingo Frommann1, Michel Grothe2, Annika Spattke1, Stefan Teipel2, Thomas Klockgether1, Michael Wagner3, Michael Heneka4, Oliver Peters5, Anja Schneider1, Katharina Buerger1, Jens Wittfang1, Christoph Laske1, Enrah Duze1, Tony Stoeckler1, Henning Boecker1, Frank Jessen1, Lukas Scheef1, on behalf of the DELCODE Consortium1
1German Center for Neurodegenerative Diseases (DZNE), Bonn, Germany, 2German Center for Neurodegenerative Diseases (DZNE), Rostock, Germany, 3German Center for Neurodegenerative Diseases (DZNE), Berlin, Germany, 4German Center for Neurodegenerative Diseases (DZNE), München, Germany, 5German Center for Neurodegenerative Diseases (DZNE), Göttingen, Germany, 6German Center for Neurodegenerative Diseases (DZNE), Tübingen, Germany, 7German Center for Neurodegenerative Diseases (DZNE), Magdeburg, Germany, 8German Center for Neurodegenerative Diseases (DZNE), Cologne, Germany, 9German Center for Neurodegenerative Diseases (DZNE), Germany

1103 Unbiased assessment of Amyloid-ß load with Voxel-wise Receiver Operating Characteristic Curves
Joseph Theriault1, Pedro Rosa-Neto2, Sulantha Mathatharachchi3, Thorick Pascoal4, Isadora Alves5, Lyudine Collij6, Serge Gauthier7, Melissa Savard8, Stoecker1, Henning Boecker1, Frank Jessen1, Lukas Scheef1, on behalf of the DELCODE Consortium1
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1104 Variability Patterns in Amnestic Mild Cognitive Impairment and Alzheimer’s Disease
Liwen Zhang1,2,3, Eric Kwun Kei Ng1, Joanna Su Kian Chong1, Hee Youn Shin1, Yng Miin Loke1, Boon Loo Yap1, Boon Loo Yap1, Christopher Li-Hsian Chen2,3, Juan Zhou1,6
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1105 Aberrant functional connectivity patterns of the posteromedial cortex in Alzheimer’s disease
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1106 T1-w/T2-w ratio values are higher in Alzheimer’s disease compared to controls
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1107 Structural, microstructural and metabolic alterations in Primary Progressive Aphasias variants
Alexandre Routier1,2, Marie-Odile Habert1,4, Anne Bertrand1,6, Aurélios Kos1,4, Pierre-Maxime David1,4, Hugo Berti1,6, Olivier Godfrey5, Frédérique Etchart-Bouyx1, Olivier Moreaud1, Florence Pasquier1, Philippe Couriat1, Karim Bennys1, Claire Boutoule Bretonniere1, Olivier Martinaud2,8, Bernard Laurent1, Jérémie Parente2, Michèle Pue1,8, Serge Belliard4, Raffaello Migliaccio1,2, Bruno Dubois1,2,20, Olivier Collot1,2,20, Marc Teichmann1,20,21
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1108 18F-AV1451 Binding in Nonfluent/Agrammatic Primary Progressive Aphasias
Kesshi Jordan1, Renaud La Joie2, Adrienne Visani1, Maria Luisa Mandelli2, Sladjana Lukic3, Aniane Welch1, Zachary Miller1, Bruce Miller1, Gil Robinovici3, Maria Luisa Gorno-Tempini4
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1109 Cerebrovascular disease influences brain network connectivity in prodromal and clinical AD
Ashwati Vipin1,2, Yng Miin Loke1, Siwei Liu1, Saima Hilal2, Hee Youn Shin1, Xiu Xu1, Boon Yeow Tan1, Narayanaswamy Venketasubramanian1, Christopher Li-Hsian Chen2,3, Juan Zhou1,6
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1110 Effects of White Matter Hyperintensity on Neuropsychiatric Symptoms in Alzheimer’s Disease
Noriko Ogama1,2, Takashi Sakurai1, Naoki Saji1, Toshiharu Naka1, Shinpei Niida1, Kenji Toba1, Takashi Sakurai1,2, Naoki Saji1, Toshiharu Naka1, Shinpei Niida1, Kenji Toba1
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1118 In vivo mapping of beta-amyloid on grey matter atrophy in dementia with Lewy bodies

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1119 Heterogeneous tau-PET signal in the hippocampus resolves discrepancies between imaging and pathology

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1120 Atrophy progression in logopenic Primary Progressive Aphasia follows healthy network architecture

Maria Luisa Mandelli1, Sladjana Lukic1, Ariane Welch1, Yann Cobigo1, Christina Watson1, Maya Henry2, John O’Brien3, Andrew Blamire4, John-Paul Taylor4, Maya Henry2, Zachary Miller1, Wendy Sheve1, Howard Rosen1, Bruce Miller1, William Seeley1, Maria Luisa Gorno-Tempini1

UCSF, San Francisco, United States, 2University of Texas, Austin, United States

1121 Impaired Brain Spontaneous Activity of Alzheimer Disease Revealed by Multicenter resting fMRI (N=688)

Jiachen Li1, Dan Jin2, Bing Liu3, Dawei Wang4, Pan Wang5, Qing Wang4, Chunshui Yu6, Xi Zhang6, Xinqing Zhang7, Yuying Zhou7, Yong Liu2,3,8, Ying Han9

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1117 Genome-Wide Association Study of Brain Connectivity Changes for Alzheimer’s Disease

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1116 Latent Atrophy Factors Relate to Specific Cognitive Impairments in Posterior Cortical Atrophy

Colin Groot1, B. T. Thomas Yeo2, Jacob Vogel3, Xiaoming Zhang4, Nanbo Sun5, Paul Crane6, Maya L. Mandelli1, Sladjana Lukic1, Ariane Welch1, Yann Cobigo1, Morgane Henry2, Zachary Miller1, Wendy Sheve1, Howard Rosen1, Bruce Miller1, William Seeley1

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1115 Memory System Functional Connectivity and Working Memory Performance in Subjective Memory Complaints

Raymond Viviano1, Jessica Hayes2, Patrick Pruitt2, Zachary Fernandez1, Sanneke van Roonden3, Jeroen van der Grond1,2, Serge Rombouts4, Jessica Damaoix5

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1114 Grey matter connectivity in the precuneus predicts atrophy rates in preclinical Alzheimer’s disease

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1113 Functional connectivity dynamics in dementia with Lewy bodies and Alzheimer’s disease

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1112 Neuro-inflammation affects neural network connectivity in Alzheimer’s disease

Luca Passamonti1, Kamen Tsvetanov2, Peter Jones3, Richard Bevan-Jones3, Robert Arnold3, Robin Borchert1, Elijah Mak1, Su Li4, John O’Brien5, James Rowe6

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1111 Impaired whole brain functional connectivity in Alzheimer’s disease: a multicenter study (N=688)

Dan Jin1,2, Ang Li2, Bing Liu3, Pan Wang4, Dawei Wang3, Qing Wang3, Kailin Xu4, Chunshui Yu5, Xinqing Zhang4, Yuying Zhou4, Xi Zhang4, Tianzai Jiang1,2, Yang Han5, Yong Liu4,5

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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21

Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
1156 Distinct patterns of functional network disruptions in degenerative dementias
Kamalini Ranasinghe1, Hardik Kathare2, Leighton Hinkley3, Jungho Cha4, Maria Luisa Gorno-Tempini5, Gil Rabinovici6, John Houde6, Keith Vosse6, Srikantan Nagarajan7
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1157 Neural Underpinnings of Harm-avoidance Learning in Anxiety
Franziska Goei1, Jessica Aylward2, Anahit Mkrtchian3, Jonathan Roiser4, Oliver Robinson2
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1158 Physiological Evidence of reappraisal’s Effect on Stress Response in Individuals with Test Anxiety
Qiang Huang1, Renlie Zhou2
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1159 Disruptions of White Matter Structural Connectome in Adolescents with Generalized Anxiety Disorder
Jimbo Zhang1, Linfan Fan1, Fan Yang2, Mei Liao3, Yuin Wang1, Tianyi Zhai1, Yan Zhang4, Lingjiang Li5, Linyan Su6, Zhengjia Dai7
1Sun Yat-sen University, Guangzhou, Guangdong, China, 2Guangdong Mental Health Center, Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangzhou, Guangdong, 3Department of Psychiatry, The Second Xiangya Hospital of Central South University, Changsha, Hunan, 4Department of Psychiatry, Guangzhou Huaih Hospital, Guangzhou, Guangdong, 5University of Southern California, Los Angeles, CA, 6UCSF, San Francisco, United States, 7Memory and Aging Center, University of California, San Francisco, San Francisco, CA, 8Rutgers University, New Brunswick, NJ, 9University of Illinois at Chicago, Chicago, IL

1160 Decreased White Matter Integrity in PTSD: Preliminary Results from the PGC-ENIGMA-PTSD Working Group
Emily Dennis1, Negar Fari2, Seth Disner3, Dmitry Isaev4, Chadi Abdallah5, Maria Densmore6, Stefan Du Plessis7, Jessica Frieling8, Elbert Geuze9, Courtney Haswell10, Milissa Kaufman11, Sinead Kelly12, Mitzy Kennes13, Saskia Koch14, Jim Logopoulous15, Ruth Lanius16, Lauren Lebois17, Mark Logue18, Danielle Miller19, Mark Miller20, Katie McLaughlin21, Miranda Olff22, Laura Navijin23, Daniel O’Doherty24, Matthew Peever25, Kerry Ressler26, Annerine Roos27, Janna Rose28, Jonathan Roiser29, Dan Stein30, Nic van der Wee31, ENIGMA-Anxiety Working Group25
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1161 Specific Phobia: specific reaction to specific feared stimuli or more? An fMRI study
Joscha Böhmle1, Isabel Kleemann1, Jonathan Repple2, Katharina Förster3, Nils Opel4, Ronny Redlich4, Dominik Grotegerd4, Katharina Dohm4, Dario Zarembo5, Christian Bürger5, Susanne Meineit5, Verena Enneking5, Tim Hahri5, Fabian Seeger6, Hanna Schwarzmeier6, Isabelle Schneider7, Urike Lueken7, Udo Dannonlon8, Daniel Pine9
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1162 Neurobiology of extinguished fear and machine learning
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1163 Analyzing subcortical volumes in adult and pediatric social anxiety disorder in ENIGMA-Anxiety
Nycke Groenewold1, Janna Marie Bas-Hoogerd1, Alyssa Amod1, Laura van Velzen1, Moji Aghajani2, Courtney Filippi3, Andrea Gold4, Christopher Ching5, Karin Roelofs6, Tomas Furrmack7, Kristoffer Månssson8, Thomas Straube9, Jutta Peterbus9, Heide Klump9, K. Luan Phan9, Christine Loechner10, Alexander Doruyter11, Jesus Pujoc12, Narics Cardoner13, Laura Blanco-Hinojo14, Katja Beesdo-Baum15, Kevin Hilbert16, Benjamin Kreifelts17, Michael Erb18, Qiang Gong19, Su Lu20, Jair Soares21, Mon-Ju Wu21, P. Michel Westenberg22, Dominik Grotegerd23, Elisabeth Leeb23, Udo Dannonlon21, Peter Zwanger24, Dick Vetten25, Daniel Pinc26, Neda Jahanshad27, Paul Thompson28, Don Stein29, Nic van der Wee30, ENIGMA-Anxiety Working Group31
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Altered Dynamic Amplitude of Low-Frequency Fluctuation in Generalized Anxiety Disorder
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Autism

1166 Functional connectivity of the insular sub-regions associated with severity in children with ASD
Jinping Xu1, Hongwei Wang2, Ziyun Xu3, Zhenni Zhou4, Yugen Gan5, Qingmo Hu6
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1167 Attenuated Long-range Temporal Correlations of Neuronal Oscillations in Young Children with Autism
Huibin Jiao1, Yanwei Li2, Dongchuan Yu3
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1168 Thalamocortical and Corticocortical Hyperconnectivity in Autism Spectrum Disorder
Tetsuya Iidaka1, Tomohiro Kagota2, Yoko Mano3
1Nagoya University, Nagoya, Aichi, 2Nagoya University, Nagoya, Japan

1169 White matter endophenotypes and correlates of clinical diagnosis of autism spectrum disorder
Yuta Aoki1, Bun Yamagata2, Takashi Itahashi3, Motaoki Nakamura4, Masaru Mimura5, Ryu-ichiro Hashimoto6, Nobumasa Kata7
1Showa University, Tokyo, Japan, 2Keio University, Tokyo, Japan, 3Department of Neuropsychiatry, Keio University school of Medicine, Tokyo, Japan

1170 Normative models of cortical thickness in autism
Richard Bethlehem1, Jacob Seiditz2, Rafael Romero-Garcia3, Michael Lombardo4
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1171 Atypical functional connectome gradient and hierarchy disruption in autism
Seok-Jun Hong1, Reinder De Wael2, Richard Bethlehem3, Sara Lariviere4, Safie Vaile5, Jonathan Smallwood6, Daniel Margulies7, Boris Bernhardt8
1Multimodal Imaging and Connectome Analysis Lab, Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada, 2Autism Research Centre, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, 3Institute of Systems Neuroscience, Medical Faculty, Heinrich Heine University, Düsseldorf, Germany, 4University of York, Heslington, United Kingdom, 5Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1172 Latent ASD factors with dissociable functional connectivity patterns and behavioral symptoms
Siyi Tang1, Nanbo Sun1, Dorothea Flores2, Xiuming Zhang2, Adriana Di Martino2, B. T. Thomas Yeo3,4,5,6,7,8,9,10
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1173 Altered measures of diffusion at the grey-white matter boundary in autism spectrum disorder
Anke Bletsch1, Caroline Mann1, Derek Andrews2, Eileen Daly2, Maria Gudbrandsen3, Flavio Dell’Acqua4,5, Amber Ruigrok6, Rafael Romero-Garcia7, Simon Baron-Cohen1, Declan Murphy8,9, Christine Ecker2,10
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1174 Reduced ratio of inner to outer Surface Area of the brain in Autism Spectrum Disorders (ASD)
Caroline Mann1, Anke Bletsch1, Derek Andrews2, Eileen Daly2, Clodagh Murphy9, Maria Gudbrandsen3, Declan Murphy8, Christine Ecker2
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1175 Higher variability of individual functional brain networks in young children with autism
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1176 Shared and distinct resting state connectivity alterations in autism and anorexia nervosa
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1177 Neural associations between eating pathologies and autistic traits in a non-clinical sample
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1178 Interhemispheric resting-state functional connectivity and corpus callosum volume changes in autism
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1179* Reproducible Functional Connectivity Alterations are Associated with Autism Spectrum Disorder
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1180 Altered network connectivity in Autism Spectrum Disorder during emotional face processing
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1181 Brain Dynamics During Speech Processing in Adults with Autism Spectrum Disorder
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1182 Atypical Sensorimotor and Language Network Connectivity in Toddlers with Autism Spectrum Disorder
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1183 Neural Correlates of Implicit Emotional Prosodic Processing in Adults with Autism Spectrum Disorder
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1184 Data driven analysis suggests disrupted cerebro-cerebellar connectivity in High-Functioning ASD
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1185 Distance-based identification of heterogeneous symptom neural correlates at the individual level
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1186 Aberrant Functional Integration of Multi-Sensory and Hub Areas in Young Children with Autism
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1187 Motor Gamma Oscillations in Pre-school Children with Autism Spectrum Disorder
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1188 Effects of Neurodevelopmental risk factors on cortical microstructure in the developing infant brain
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1189 A brain signature with high positive predictive power of ASD diagnosis
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1190 Functional and chemical imaging of language processing in Autism Spectrum Disorder
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1191 Neuromodulation of the face-processing network with fMRI Brain-Computer Interfaces in Autism
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1192 Morphology Independent Diffusion Anomalies of Superficial White Matter in Autism Spectrum Disorders
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1209 Using structural MRI to identify bipolar disorders: Multi-site machine learning in 3020 individuals
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1210 Diffusion imaging and lithium imaging in euthymic bipolar disorder
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1211 ECT induced cortical plasticity in major depressive disorder
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1212 Asymmetric Functional Connectivity in Depression Using Ultra-high Field Resting-state fMRI
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1213 Functional Brain Abnormalities in Major Depressive Disorder: A Chinese Multi-site Resting fMRI Study
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1214 Predicting Remission in a Late-Life Depression Treatment Trial using Baseline and Single-Dose fMRI
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1215 Abnormal functional rich club organization in major depressive disorders
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1216 Electroconvulsive therapy modulates gray matter increase in a hub of an affect processing network
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1217 Age modulates the association between neuroticism and hippocampus volume in Major Depression
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1218 Alexithymia is associated with decreased gray matter volume in depressed patients
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1219 Functional Disconnection of the Hippocampal Networks in Major Depressive Disorder
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1220 Neuroimaging Phenotype of Major Depressive Disorder Based on Genetic Loading for Schizophrenia
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1221 Differential Gene Expression Profile Analysis in Corticosterone Treated PC12 cells
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1222 Network Dynamics Predict rTMS Treatment Response in Depression
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1223 Different Brain Responses to the Emotional Stimuli after EPA and DHA Treatment on Major Depression
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1224 Dynamic Functional Network Connectivity in Major Depressive Disorder
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1225 Imaging genetic evidence links maltreatment, obesity and major depression
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1227 Disrupted functional connectivity patterns of the insula subregions in major depressive disorder
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1230 Neural correlates of cognitive-attentional syndrome – a comparative study
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1228 Relationships between Depression Vulnerability and Brain Networks: a multimodal EEG fMRI study
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1231 A reinforcement learning perspective on ER depression – vmPFC activation and connectivity
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1232* Longitudinal Structural Covariance Associated with Antidepressant Electroconvulsive Therapy Response
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1233 Depressive Rumin middle a Microstructural-Functional Failure of Network of Networks Derek Pitzer1, Christopher Beever2, Jason Shumake3, David Schneyer4
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1234 Targeting the emotional brain - a Randomized Clinical Trial of real-time fMRI neurofeedback training
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1235 Differential effect of childhood maltreatment on white matter in unipolar and bipolar depression
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1236 Neural correlates of individual differences in healthy optimism in the ventral striatum
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1237 Ketamine therapy induced changes in functional connectivity in major depressive disorder
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1238 Effect of ketamine on processing emotionally valenced stimuli in major depressive disorder
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1239 Corticobasal Tracts in Major Depressive Disorder: A Multimodal Perspective
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1240 Sub cortical and cortical grey matter alterations in treatment resistant depression
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1241 Temporal dynamics of intrinsic brain activity predict suicidal ideation in depressed patients
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1242 Disrupted Brain Network Modular Architectures in Depression, Bipolar Disorder and Schizophrenia
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1243 Increased Variability in Brain Activation Watching Positive Movie Clips in Patients with Depression
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1244 A subject-independent pattern-based Brain-Computer Interface for Depression
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1245 Identifying subclinical and low mental illness risk subgroups of adolescents using SPS
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1246 Altered cortical metastability in depression is related to hippocampus functional connectivity
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1247 A subject-independent pattern-based Brain-Computer Interface for Depression
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Brain correlates of transdiagnostic risk for psychotic and mood disorders in youth

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Reward anticipation in healthy subjects, unipolar depression, bipolar disease and schizophrenia

GIMME-Derived Functional Connectivity Biomarkers Predict Internalizing Symptoms

Christopher Eberle1, Maximilian Schneider1, Victor Spoormaker1, Anja Richter2, Oliver Gruber3, Elisabeth Binder1, Michael Czisch1, Philipp Samann1
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Impact of early traumatic experiences in brain GABA concentrations in depressed women

Javier Amado Lermo1, Sarael Alcânter1, Norma Bernal Santamaria1, Margarita López-Tillal1, Richard Eddin1, Monica Flores Ramos1
1Instituto Nacional de Psiquiatria, Mexico City, Mexico, 2Universidad Nacional Autónoma de Mexico, Queretaro, Oax., 3Instituto Nacional de Psiquiatria Ramon de la Fuente Muñiz, Mexico City, Mexico

Revealing the heterogeneity of depression using repetitive transcranial magnetic stimulation

Peter Fettes1,2, Farrah Mansouri1, Laura Schulze1, Fidel Vila-Rodríguez2, Peter Giacobbe1, Raymond Lam2, Sidney Kennedy2, Zafiris Daskalakis3, Daniel M. Blumberger1, Jonathan Donnan1
1University of Toronto, Toronto, Canada, 2Krembil Research Institute, Toronto, Canada, 3Department of Psychiatry, University of British Columbia, Vancouver, British Columbia

Activation of the emotion processing circuit over a course of a 12-week pharmacotherapy trial in LLD

Helmet Karim1, Carmen Andreescu1, Dana Tudarascu1, Meryl Butters1, Jordan Karp1, Charles Reynolds III1, Howard Aizenstein1
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Differential topological organization of brain networks in multiple sclerosis

Thijs Charalambous4, Elizabeth Powell5,6, Jonathan Clayden5, Ferran Prados7, Carmen Tur1, Baris Ranber1, Declan Chard1, Sebastien Ourselin1, Claudia Wheeler-Kingshott8,9, Alan Thompson1, Ahmed Tassy1
1UCL Institute of Neurology, Faculty of Brain Sciences, University College London, London, United Kingdom, 2Medical Physics and Biomedical Engineering, University College London, London, United Kingdom, 3UCL GOS Institute of Child Health, University College London, London, United Kingdom, 4Translational Imaging Group, CMIC, University College London, London, United Kingdom, 5Institute for Health Research (NIHR) University College London Hospitals (UCLH), Biomedical Research Centre, London, London, United Kingdom, 6Department of Brain and Behavioural Sciences, University of Pavia, Pavia, Italy

Gray matter atrophy in multiple sclerosis: regional selectivity and connectivity

Florence Chiang1, Rebecca Romero1, Susie Huang1, Fang Yu1, Bunhut Tantiwongsob2, Peter Fox1
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Sample entropy analysis of BOLD response to the Stroop task in patients with chronic fatigue syndrome

Zack Shari1, Kevin Finegan2, Sandeep Bhuta1, Timothy Ireland1, Donald Staines1, Sonya Marshall-Gradsinski1, Leighton Barnden1
1National Centre for Neuroimmunology and Emerging Diseases, Griffith University, Gold Coast, QLD, 2Medical Imaging Department, Gold Coast University Hospital, Gold Coast, QLD

Diagnosis and prognosis of patients with severe chronic disorders of consciousness using fMRI

Betty Wutz1, Stefan Golaszewski2, Frank Rattay3, Cristina Florea3, Kerstin Schwenker1, Eugen Trinka1, Kenji Leibnitz1, Masayuki Murata1
1Osaka University, Suita, Japan, 2Paracelsus Medical University, Salzburg, Austria, 3Vienna University of Technology, Vienna, Austria, 4National Institute of Information and Communications Technology, Suita, Japan

Reliability of connectivity-based cortical parcellation in individuals with spinal cord injury

Ann Choo1,2, Visar Belegu1, Haris Sair1, Limin Chen1, Martin Lindquist1, Cristina Sadowsky2, James Pek11,2
1Johns Hopkins University School of Medicine, Baltimore, MD, 2Kennedy Krieger Institute, Baltimore, MD, 3Vanderbilt University Institute of Imaging Science, Nashville, TN, 4Johns Hopkins University School of Public Health, Baltimore, MD

Comparison of microstructural changes in multiple sclerosis lesions across multiple MRI measures

Md Nasir Uddin1,2, Teresa Figley3, Chase Figley4
1University of Manitoba, Winnipeg, Manitoba, 2University of Manitoba, Winnipeg, Canada, 3University of Minnesota, Minneapolis, MN, 4University of Minnesota, Minneapolis, MN
1274 Disruption of Subregional Posteromedial Corticothalamic Connectivity in Disorders of Consciousness
Yue Cui1,2, Ming Song3,4, Darren Lipnicki5, Yi Yang3, Bing Liu1,2,3, Chuyang Ye2,5, Lingzhong Fan1,2,3, Jing Su1,2,3, Jianghong He1, Tianzi Jiang1,2,3,4
1Brainnetome Center and Institute of Automation, Chinese Academy of Sciences, Beijing, China, 2National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 3University of Chinese Academy of Sciences, Beijing, China, 4CHEBA (Centre for Healthy Brain Ageing), School of Psychiatry, University of New South Wales, Sydney, Australia, 5Department of Neurosurgery, PLA Army General Hospital, Beijing, China

1275 Effects of zolpidem on the EEG spectral power and resting state functional connectivity in UWS
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1276 Ultra-high MR field quantification of infratentorial atrophy in multiple sclerosis
Mohamed Mourin El Mendili1, Maria Petracca1, Kornelius Podranski2,3,4,5,6,7,8, recipe, Siro Coccozza1, Matilde Inglese1,6
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1277 Local Anaesthetic Injection Indicates Central Nervous System Involvement in Burning Mouth Syndrome
Kiran Benteng1, Steve Williams2, Tara Renton1, Matthew Howard1
1Kings College London, London, United Kingdom, 2Department of Neuroimaging, King’s College London, London, United Kingdom, 3Department of Oral Surgery, King’s College London, London, United Kingdom

1278 Differences in functional response to sensory and motor stimulation in Carpal Tunnel syndrome
Katherine Koenig1, Emily Grandy2, Brinda Pogul3, Mark Lower4, Peter Evans5, Zong-Ming Li6
1Cleveland Clinic, Cleveland, OH, 2The Cleveland Clinic, Cleveland, OH, 3Cleveland Clinic, Cleveland, OH, 4Department of Neurology, Cleveland Clinic, Cleveland, OH

1279 White matter organization in Restless Legs Syndrome/Willis-Ekbom Disease: a ROI analysis
Yue Cui12, Ming Song3,4, Darren Lipnicki5, Yi Yang3, Bing Liu1,2,3, Chuyang Ye2,5, Lingzhong Fan1,2,3, Jing Su1,2,3, Jianghong He1, Tianzi Jiang1,2,3,4
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1280 The alterations of brain cortical thickness and volume in obese patients after bariatric surgery
Li Liu1, Yang Hua2, Guanyao Li2, Chunxin Hu1, Gang Ji2, Yongzhan Nie2,3, Gang Ji2, Yongzhan Nie2,3
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1281 Hippocampal Subfields in Adolescent Inpatients with Restrictive Anorexia Nervosa
Anna Myrvang1, Torgill Vonberg1, Kristin Stedal1, Oyvind Ra1, Tor Endstad1, Jan Rosenvinge1, Per Aslaksen1
1University of Tromsø, Tromsø, Norway, 2Oslo University Hospital, Oslo, Norway, 3University of Oslo, Oslo, Norway

1282 Cortical Folding in Anorexia Nervosa
Fabio Bernardoni1, Joseph King2, Daniel Geisler1, Julan Birckenstock1, Friederike Tam1, Kerstin Weidner1, Viet Roessner2, Tonyo White3, Stefan Ehrlich2
1Universitätsklinikum Dresden, Dresden, Germany, 2Universitätsklinikum Dresden, Dresden, Saxony, 3Technische Universität Dresden, Dresden, Germany, 4Erasmus University Medical Centre, Rotterdam, Zuid Holland

1283 Body mass index and local cortical morphometry in anorexia nervosa
Jenni Leppanen1, Valentina Cardi1, Janet Treasure1, Kate Tchanturia1
1King’s College London, London, United Kingdom

1284 FMRI response to palatable taste in obesity with and without Binge-eating disorder: a pilot study
Eunice Chen1
1Temple University, Philadelphia, PA

1285 Altered global brain-network properties as trait marker in restrictive eating disorders
Daniel Geisler1, Ilko Boehm2, Viola Borchard2, Joseph King1, Friederike Tam1, Viet Roessner2, Martin Walter1, Stefan Ehrlich2
1Division of Psychological and Social Medicine and Developmental Neuroscience, TU Dresden, Dresden, Germany, 2University of Oulu, Oulu, Finland, 3Department of Child and Adolescent Psychiatry, Faculty of Medicine, TU Dresden, Dresden, Germany, 4Eberhard Karis University, Tubingen, Germany

1286 Presurgical language lateralization in Temporal Lobe Epilepsy patients by using fMRI, DTI and VBM
Mohamed Mounir El Mendili1, Maria Petracca1, Kornelius Podranski2,3,4,5,6,7,8, recipe, Siro Coccozza1, Matilde Inglese1,6
1Department of Neurology - Icahn School of Medicine at Mount Sinai, New York, NY, 2National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 3University of Chinese Academy of Sciences, Beijing, China, 4CHEBA (Centre for Healthy Brain Ageing), School of Psychiatry, University of New South Wales, Sydney, Australia, 5The Mind Research Network and Lovelace Biomedical and Environmental Research Institute, Albuquerque, NM, 6Key Laboratory for Neuroinformation of Ministry of Education, School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu, China, 7Queensland Brain Institute, University of Queensland, Brisbane, Australia

1287 Paravascular spaces in post-traumatic epilepsy patients
Dominique Duncan1, Giuseppe Barisoni3, Arthur Toga1, Meng Law4
1Keck School of Medicine of University of Southern California, Los Angeles, CA, Los Angeles, CA

1288 Assessment of multispectral voxel based morphometry in focal epilepsy patients
Raviteja Kotikalapudi1,2,3,4, Pascal Martin2, Benjamn Bender1, Niels Focke4,2,5
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1289 Post-ictal Hypoperfusion Measured by CT Perfusion Imaging: Localizing the Seizure Onset Zone
Emmy Li1, Chris d’Este2, Ismael Gaxiola Valdez1, Ting Lee1, Paolo Federico1
1University of Calgary, Calgary, Alberta, 2University of Western Ontario, London, Ontario

1280 The alterations of brain cortical thickness and volume in obese patients after bariatric surgery
Li Liu1, Yang Hua2, Guanyao Li2, Chunxin Hu1, Gang Ji2, Yongzhan Nie2,3, Gang Ji2, Yongzhan Nie2,3
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Eating Disorders

1280 The alterations of brain cortical thickness and volume in obese patients after bariatric surgery
Li Liu1, Yang Hua2, Guanyao Li2, Chunxin Hu1, Gang Ji2, Yongzhan Nie2,3, Gang Ji2, Yongzhan Nie2,3
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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
Multimodal assessment of functional reorganization in temporal lobe epilepsy. Two case reports

Elise Roig1, Emilie Cousin1, Cedric Pichat1, Lorella Minotti2, Anne-Sophie Job3, Alexandre Krainik2, Philippe Kahane4, Monika Baciu5
1Univ. Grenoble Alpes, CNRS LPPC UMR 5105, Grenoble, France, 2Univ. Grenoble Alpes, Grenoble Institute of Neuroscience & Neurology Department CHUGA, Grenoble, France, 3Univ. Grenoble Alpes, UMS IRMOGe CHU, F-38000 Grenoble, Grenoble, France

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Case Study: Evaluation of White Matter Disorganization in Temporal Lobe Epilepsy

Localization of seizure onset zone using empirical mode decomposition of ECoG recordings

Olfactory fMRI can reveal lateralized Piriform Cortex dysfunction in Temporal Lobe Epilepsy

Connectome-based functional biotyping of focal cortical dysplasia

Seizure onset zone localization using empirical mode decomposition of ECoG recordings

Evidence for seizure-associated blood-brain barrier disruption in epilepsy patients

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Intracranial EEG-fMRI analysis of High Frequency Oscillations in Patients with Focal Epilepsy

Source Modeling of High Frequency Activity in Tripolar Electroencephalography of Epilepsy Patients

Evidence for ultra-fast fMRI signal variance in drug-naive vs. medicated patients with epilepsy

Neuropsychological and Electroencephalography network change after surgery in Pediatric Epilepsy Patients

Mapping Cortical Excitability with Local Phase Synchronization in EEG Source Space

A neurophysiological signature of slowed processing speed in epilepsy

Seizure onset zone localization by comparing patient postictal hypoperfusion to healthy controls

Deep convolutional neural networks for detection of cortical dysplasia: a multicenter validation

To view full abstract text and ePosters, visit www.aievolution.com/hbm1801

Multimodal assessment of functional reorganization in temporal lobe epilepsy. Two case reports

Elise Roig1, Emilie Cousin1, Cedric Pichat1, Lorella Minotti2, Anne-Sophie Job3, Alexandre Krainik2, Philippe Kahane4, Monika Baciu5
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1307 Brain Network Analysis Based on Cortical Thickness Data in Mesial Temporal Lobe Epilepsy with HS
Kan Deng1, Guo Biri1, Jian Zhang2, Dongfang Zou3, Hongwu Zeng4, Bingsheng Huang5
1School of Biomedical Engineering, Health Science Center, Shenzhen University, Shenzhen, China, 2School of Medicine, Health Science Centre, Shenzhen University, Shenzhen, China, 3Shenzhen Children’s Hospital, Shenzhen, China

1308 Visualizing the traces of epileptic seizures within ictal networks
Bastian David1, Theodor Rüber1, Ralf Deichmann1, Bernd Weber1, Gottfried Schlaug2, Elke Hattingen1, Christian Elger3
1Department of Epileptology, University of Bonn Medical Center, Bonn, Germany, 2Brain Imaging Center, Goethe University Frankfurt, Frankfurt, Germany, 3Beth Israel Deaconess Medical Center / Harvard Medical School, Neuroimaging and Stroke Recovery, Boston, United States, 4Department of Radiology, University of Bonn Medical Center, Bonn, Germany

1309 Alpha5 subunit-containing GABA-A receptors and memory in MRI-negative temporal lobe epilepsy
Colm McGinnity1,2, Daniela Riano Barros1,2, Rainer Hinz3, James Myers1, Siti Nurbaya Yaakub1, Rolf Heckemann1,4, John Duncan5,6, Josemier Sander7,8, Anne Lingford-Hughes6, Matthias Koepf7,8, Alexander Hammers5,9,10
1Centre for Neuroscience, Department of Medicine, Imperial College London, London, United Kingdom, 2MRC Clinical Sciences Centre, Hammersmith Hospital, London, United Kingdom, 3School of Biomedical Engineering & Imaging Sciences, King’s College London, London, United Kingdom, 4Wolfson Molecular Imaging Centre, University of Manchester, Manchester, United Kingdom, 5MedTech West at Sahlgrenska University Hospital, Gothenburg, Sweden, 6Institute of Clinical Sciences, Gothenburg University, Gothenburg, Sweden, 7NIHR University College London Hospitals Biomedical Research Centre, UCL Institute of Neurology, London, United Kingdom, 8Chalfont Centre for Epilepsy, Chalfont St. Peter, United Kingdom, 9Neuropsychopharmacology Unit, Department of Medicine, Imperial College London, London, United Kingdom, 10Neurodis Foundation, CERMEP, Imagerie du Vivant, Lyon, France

1310 Degenerative and compensatory VBM changes of the unaffected hemisphere in Rasmussen encephalitis
Conrad Philibert1, Bastian David1, Theodor Rüber1, Bernd Weber1, Christian Elger3
1University of Bonn, Bonn, Germany, 2University of Bonn, Bonn, North-Rhine-Westphalia, 3Department of Epileptology, University of Bonn Medical Center, Bonn, Germany

1311 Relationship of Controllability and Strength reveals altered Hubness in Drug Resistant Epilepsy
Ganne Chainay1, Danielle Bassett2, An Kohn3, Ankit Khambhati3, Xiaosong He4, Nooh Siderman1, Hela Said1, Elfen Elne1, Na Young Kim1, Joseph Tracy3
1Thomas Jefferson University, Philadelphia, PA, 2University of Pennsylvania, Philadelphia, PA, 3University of Pennsylvania, Philadelphia, PA

Medical illness with CNS impact (e.g. chemotherapy, diabetes, hypertension)

1312 Gray matter structure in obesity & neural response to palatable taste: cross-modality meta-analysis
Eunice Chen1, Temple University, Philadelphia, PA

1313 Functional consequences of hypertension on the brain: White matter burden and connectivity
Chnton Shafi1, Meng-Kang Hsieh2, Yong Fan3, Guray Erus4, William Haley5, Christos Davatzikos6, R Bryant7, Ilya Nasrallah8
1Department of Radiology, Hospital of the University of Pennsylvania, Philadelphia, PA, 2Department of Radiology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, 3Nephrology and Hypertension Division, Mayo Clinic, Jacksonville, FL, 4University of Pennsylvania, Philadelphia, PA, 5Department of Diagnostic Medicine, Dell Medical School, University of Texas at Austin, Austin, TX

1314 The effect of hypertension and blood pressure on brain structure: a meta-analysis
Amanda Worker1, Danai Dim1, Matthew Kempston1, Steve Williams1
1Department of Neuroimaging, King’s College London, London, United Kingdom

1315 Gray matter differences in obesity: validation of meta-analytic findings in an independent sample
Isabel Garcia Garcia1, Andraeanne Michaud2, Mahsa Dador3, Yashar Zeighami1, Alain Ogger2
1McGill University, Montreal, Canada, 2Montreal Neurological Institute, McGill University, Montreal, Canada, 3McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Canada

1316 Corpus Callosum and Gross Motor Deficit in Early Treated Perinatally HIV-Infected Children
Watsamon Jantarabenjakul1,2, Neda Jahanshad1, Taila Nii2, Alyssa Zhu2, Arvin Saremi3, Canon Corbin3, Jedsaporn Sirisamer4, Tuangtip Theerawat1, Jirachayo Sophonphan2, Montida Veeravigom1, Weerasak Chonchoiya3, Mananta Pothisrit4, Netsiri Dumrongpisutikul5, Pipat Saeyap4, Pannika Vorapalk6, Thanyawee Puthanakit2,3, Jintanat Anantaworanich4,5, Kathleen Malee6, Paul Thompson7, Chatsunu Parchaoren1,2
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1317 Altered Brain Developmental Trajectories in Children with Perinataly Acquired HIV
Taila Nii1, Hei Lam2, Arvin Saremi3, Thanyawee Puthanakit2,3, Linda Aurpibul4, Robert Paul5, Stephen Ker6, Katherine Clifford7, Sukaiya Lerdum7, Mananta Pothisrit4, Pannee Visrutaratana8, Pope Kasolarako9, Tulathip Suwanlerk4, Paul Thompson4, Victor Voicour1, Jintanat Anantaworanich1, Neda Jahanshad1, Ilya Nasrallah8
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Obsessive-Compulsive Disorder and Tourette Syndrome

1324 Ventromedial prefrontal cortex metabolite levels in OCD: a proton MRS study
Marcelo Battistuzzo1, Marcelo Hoexter2, Roseli Shavitt2, Euripides Miguel2, Anke Henning3
1University of Sao Paulo, Sao Paulo, Brazil, 2USP, Sao Paulo, SP, 3Institute for Biomedical Engineering and ETH, Zurich, Switzerland

1325 Disordered Developmental Trajectories of Thalamo-Cortical Connectivity in youth with Obessive
Hans Perek1, Vaibhav Diwadkar2, Asadur Chowdury2, Phillip Easter2, Gregory Hannan3, John Arnold4, David Rosenberg5
1Wayne State University, Sterling Heights, MI, 2Wayne State University, Detroit, MI, 3University of Michigan, Ann Arbor, MI, 4University of Calgary, Calgary, Canada

1326 Cerebro-Cerebellar Resting-State Functional Connectivity of Alterations in OCD
Goi Chik Eng1, Bhanu Gupta1, Haniram Jayaraman1, Jackki Hoon Eng Yim2, Roger Chun Man Ho2, Cyrus Su Hui Ho2, Melwyn Weibin Zhang3, Rathi Mahendra3, Kang Sim4, Shi Annabel Chen4
1Nanyang Technological University, Singapore, Singapore, 2Institute of Mental Health, Singapore, Singapore, 3National University Health Systems, Singapore, Singapore

1327 A Structural Connectivity Study of the Frontal Inferior Cortex in Obsessive Compulsive Disorder
Ivy Uzovski1, Cyri1 Poupon1, Cedric Pichat1, Pauline Favre2, Benjamin Fredembach1, Hervé Mathieu1,2,3, Maxence Rigon1, Laurent Lamoille4,5, Alexandre Kraink5,6, Olivier David1,2, Emmanuel Barbier1,2,3, Mircea Polosan1,2,3,4
1Grenoble Institut des Neurosciences, Université Grenoble Alpes, Grenoble, France, 2Neurospin, Institut Gustave Roussy, Villejuif, France, 3Univ. Grenoble Alpes, CNRS LNC CNRS 5105, Grenoble, France, 4Institut Universitaire de France, 5INSERM U1216, Grenoble, France, 6Unité Mixte de Service IRMaGe, CHU Grenoble Alpes, Grenoble, France, 7Unité Mixte de Service 3552, CNRS, Grenoble, France, 8Department of Psychiatry, CHU Grenoble Alpes, Grenoble, France

1328 Dysfunctional connectomics in obsessive-compulsive disorder during basic visuomotor integration
Alexandra Morris1, Mathura Ravishankar1, Phillip Easter2, David Rosenberg2, Vaibhav Diwadkar2
1Wayne State University, Detroit, MI

1329 Complementary evidence for dysconnectivity and activation profiles in youth with OCD
Amy Friedman1, Ashley Burgess2, Karthik Ramaseshan2, Phillip Easter2, Asadur Chowdury2, David Rosenberg2, Vaibhav Diwadkar2
1Wayne State University School of Medicine, West Bloomfield, MI, 2Wayne State University, Detroit, MI

1330 Investigating direction of information flow in obsessive compulsive disorder with resting state fMRI
Hai-long Li1, Xinyu Hu1, Lianqing Zhang1, Lu Lu2, Xiaoxiao Hu2, Xuan Bu3, Shi Tang3, Yanchun Yang2, Qiyong Gong2, Xiaoqi Huang1
1Huaxi MR Research Center (HMRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, 2Department of Psychiatry, West China Hospital of Sichuan University, Chengdu, China

Other Psychiatric Disorders

1331 Distinct brain activity in patients with functional constitution associated with psychiatric symptom
Qingchao Jia1, Guanya Li1, Mingzhu Xu1, Yang Hu2, Li Liu2, Yi Zhang2, Yongzhan Nie3
1Center for Brain Imaging, School of Life Science and Technology, Xidian University, Xi’an, Shaanxi, China, 2Xijing Gastrointestinal Hospital, The Fourth Military Medical University, Xi’an, Shaanxi, China

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**1332** Children with ADHD exhibit lower fMRI spectral exponent than their typically developing counterparts
Moses Sokunbi
De Montfort University, Leicester, United Kingdom

**1333** Neuroimaging-informed phenotypes of suicidal behavior
Fabrice Pereira1, Gerd Wagner2, Stéphane Richard-Devantay3, Stefanie Köhler1, Karl-Jürgen Bär1, Gustavo Turecki4, Fabrice Joallant5
1University Hospital Centre of Nimes, Department of Radiology, EA2415, Nimes, France, 2Department of Psychiatry and Psychotherapy, Jena University Hospital, Jena, Germany, 3MCGill group for Suicide Studies, McGill University, Montréal, Canada, 4INSERM U934, Centre de Psychiatrie et Neurosciences (CPN), Université Paris Descartes, Sorbonne, Paris, France

**1334** Neurophysiological intermediate Phenotype Profiles in Attention-Deficit/Hyperactivity Disorder
Beatrix Barth1, Kerstin Mayer-Carius1, Ute Strehl2, Augustin Keß1, Florian Häußinger1, Andreas Fallgatter1, Ann-Christine Ehlis2
1Department of Psychiatry and Psychotherapy, University of Tuebingen, Tuebingen, Germany, 2Institute for Medical Psychology and Behavioral Neurobiology, University of Tuebingen, Tuebingen, Germany, 3Hector Research Institute of Education Sciences and Psychology, University of Tuebingen, Tuebingen, Germany, 4Werner Reichardt Centre for Integrative Neuroscience (CINI), University of Tuebingen, Tuebingen, Germany, 5LEAD Graduate School & Research Network, University of Tuebingen, Tuebingen, Germany

**1335** Regional gray matter reduction in adolescents engaging in non-suicidal self-injury
Ayaka Ando1, Corinna Reich1, Friederike Schiel1, Anastasia Bykov1, Peter Parzer1, Franz Resch1, Romuald Brunner1, Michael Kaess2
1Heidelberg University, Heidelberg, Germany, 2University of Bern, Bern, Switzerland

**1336** ADHD and the cortex; evidence from large clinical and population based samples
Martine Haagman1, Ryan Muetzel2, Elena Shuskoaya3, Joao Guimarães3, ENIGMA-ADHD Working group4, The Generation-R Consortium5, Jan Buiterbaan6, Paul Thompson7, Steven Farbione8, Philip Shaw9, Henriette Tienmeier10, Janita Bratten11, Barbara Franke11
1Radboud University Medical Center, Nijmegen, Gelderland, Erasmus MC, Rotterdam, Netherlands, 2Radboud University Medical Center, Nijmegen, Gelderland, Erasmus MC, Rotterdam, Netherlands, 3Donders Institute, Nijmegen, Netherlands, 4Imaging Genetics Center, Keck School of Medicine of University of Southern California, Los Angeles, CA, 5Department of Psychiatry, SUNY Upstate Medical University, Syracuse, NY, 6National Institute of Mental Health, Bethesda, MD, 7Department of Child and Adolescent Psychiatry, University Hospital, Frankfurt am Main, Germany, 8University of Tuebingen, Tuebingen, Germany, 9University of Giessen, Giessen, Germany

**1337** Anterior insula hyperactivation in ADHD when faced with distracting negative stimuli
Nora Vetter1, Judith Buse1, Lea Backhausen1, Michael Smolka1, Katya Rubia2, Veit Roessner3
1Technische Universität Dresden, Dresden, Germany, 2King’s College London, London, United Kingdom

**1338** Resting-State fMRI reveals Network Disintegration during Delirium
Simone Monfort1, Edwin Dellen1, Aletta Bosch2, Willem Otte2, Maya Schutte2, See-Hoi Choi3, Tae-Sub Chung2, Sunghyun Kyeong2, Arjen Slooter2, Joe-Jin Kim3
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**1339** Automated Reconstruction of White Matter Pathways in ADHD Using Anatomical Priors
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**1340** Cross-disorder connectome examination reveals generally vulnerable connections of the human brain
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**1341** Neural correlates of hostile intention attribution during laughter perception in conduct disorder
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**1342** Alternations in brain structural connectome of children and youth with prenatal alcohol exposure
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**1343** Brain-behavior patterns define a dimensional biotype in medication-naive adults with ADHD
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**1344** Cross Site Classification of Adult ADHD Using Functional Independent Components
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1345 Alteration in Corticospinal Tract in Subtypes of ADHD Revealed by Quantitative Tractography
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1346 Neuroinflammation Predicts Dopaminergic Deficit in Early Parkinson Disease: DAT SPECT Imaging Study
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1347 Relationship between Functional Connectivity and Serum α-synuclein revealed by Dual Regression ICA
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1348* An Epidemic Spread Model Replicates Atrophy Patterns in Parkinson’s Disease
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1349 White Matter Matter Signaturecaries of Inherited and Sporadic Dystonia
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1350 Severity of Motor Impairment in Parkinson’s disease patients with Freezing of Gait
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1351 Decreased Pallidal Vesicular Monoamine Transporter type 2 availability in Parkinson’s disease
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1352 Graph analysis of brain networks in Parkinson’s disease patients with beta-amyloid positive
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1353 Exploring the neural correlates of gait asymmetry in idiopathic REM Sleep Behavoir Disorder
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1354 Altered functional connectivity of the praxis network in Parkinson’s disease
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1355 Associations between plasma biomarkers, network integrity, and cognition in Parkinson’s disease
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1356 Probing the longitudinal neurodegeneration in SCA7 using VBM
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1357 The Effect of Cycling Exercises on Motor Cortex Functional Connectivity of Parkinson’s Disease
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1358 DMN-MDN interactions are disrupted in early stage Parkinsons Disease
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1359 White and Grey Matter Changes After MPTP Administration in Vervet Monkeys
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1360 Three-dimensional Network Architecture of Dystonia in Resting State Functional MRI
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1361* Automated measures from neuromelanin MRI reveal neurodegeneration in REM sleep behaviour disorder
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1362 Atrophy-guided network changes in patients with Multiple Sclerosis
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1363 Parkinson-plus Syndromes Classification between Human Rating and Automated Brain Quantification Tool
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1364 Amygdala atrophy as a biomarker for mild cognitive impairment in early Parkinson’s disease
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1365 Altered brain activations during working memory task in Parkinson’s disease
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1366 Brain Flexibility as a Biomarker for Diagnosing and Monitoring Progression in Parkinson’s Disease
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1367 Episodic memory performance is related to frontoparietal connectivity strength in Multiple Sclerosis
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1368 A view on executive function in premanifest Huntington’s disease: an fMRI virtual reality study
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1369* Thinning of CA1-Striatum Pyramidal Linked to Episodic Memory Impairment in Parkinson’s disease
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1370 Dissociating heterogeneity in de novo Parkinson’s disease with patient similarity networks
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1371 Functional connectivity alterations of dorsal premotor cortex subregions in Parkinson's disease
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1372 Parkinson's disease: a disease of dynamic switching among the brain states
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1373 Grey matter volume and functional connectivity in relation to the benefit of GPi DBS in dystonia
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1374 Degree of Centrality within the motor network for Parkinsons dDisease
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1375 Characterizing the connectome in Parkinson’s disease patients with visual hallucinations
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1376 Structural abnormalities in Parkinson's disease and their relation to skin alpha-synuclein
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1378 Alteration of basal ganglia connectivity induced by MRgFUS-subthalamotomy in Parkinson's disease

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1383 Changes in resting state connectivity after botulinum toxin therapy of cervical dystonia

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1384 Predicting Cognitive Impairment in Parkinsons dDiseas using Clinical Data and Structural MRI

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1386 Effect of motor planning and dopaminergic medication on cerebellar network in Parkinson's Disease

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1388 Microstate analysis of cortical synchrony in Parkinson Disease with mild cognitive impairment

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1390 Cortical Morphometry Effects of Parkinsons dDiseas: A Preliminary ENIGMA-Parkinson's Study

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1392 Network Connectivity Measured by Diffusion Tensor Imaging MRI and Prognosis in Parkinson’s Disease

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1417 Interpretable and stable prediction of schizophrenia using machine learning with structured sparsity
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1418 Victimization and brain responses to emotional facial expressions in individuals with psychosis
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1419 Quantitative Structural Imaging Changes After a First Episode of Psychosis
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1420 Multivariate associations between multimodal imaging and behavioral and clinical data in psychosis
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1421 Modeling the Psychopathology in Schizophrenia via Machine Learning: A Worldwide Multi-Center Study
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1422 Individual Variability of Brain Network Structure in Depression, Bipolar Disorder and Schizophrenia
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1423 Fronto-temporal white matter tracts predict remission or non-remission state in early schizophrenia
Wei-Chia Liu1, Yung-Chin Hu1, Chih-Min Liu2,3, Tzung-Jeng Hwang2,3, Hai-Gwo Hwu2,3, Wen-Yih Isaac Tsegi1,4
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1424 A Combined Magnetoencephalography, 7T fMRI, and 7T MRS Spectroscopy Study in First Episode Psychosis
Timothy Gawne1, Gregory Overbeek1, Jefferey Killen1, David White1, Meredith Reid2, Nouha Salibi1, Thomas Denney2, Charles Ellis3, Adrienne Lahti1
1University of Alabama at Birmingham, Birmingham, United States, 2Auburn University, Auburn, United States, 3Louisiana Tech, Ruston, United States
**Disorders of the Nervous System**

**Schizophrenia and Psychotic Disorders, continued**

1425* Different impaired speed of brain FC, GM and SNP in schizophrenic progress: a multimodal study

Na Luo1,2,3, Lin Tian1, Vince Calhoun4, Jiayu Chen1, Dongdong Lin5, Victor Vergara6, Fuqian Zhang4, Jing Su2,3,5
1Brainnetome Center, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 2National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 3University of Chinese Academy of Sciences, Beijing, China, 4Wuxi Mental Health Center, Wuxi, China, 5The Mind Research Network, Albuquerque, United States

1426 Using resting state to classify and predict 12-month functional outcome in psychosis patients

Lana Kambetz-Iliakovic1, Shatoliao Hoa1, Johanna Weise1, Anne Ruef2, Linda Antonucci3, Marco Poilin3, Peter Falkai4, Nikolaos Koutsouleris2
1Ludwig-Maximilian University, Department of Psychiatry, Munich, Germany, 2Ludwig-Maximilian University, Department of Psychiatry, Munich, Germany, 3Ludwig-Maximilian University, Department of Psychiatry, Munich, Germany, 4University of Bari, Institute of Psychiatry and Neurological Sciences, Bari, Italy, 5Department of Radiology, Ludwig-Maximilians University, Munich, Germany, 6Ludwig-Maximilian University, Department of Psychiatry, Munich, Germany

1427 Meta analysis of 91 studies - Brain correlates with executive reaction times in schizophrenia

Katharina Moeller1, Ronald Van Hecke1, Simon Eickhoff1,2,3,4,5,6, Grigis3, Josselin Houenou2,1
1UMR 5287-CNRS, INCIA-University of Bordeaux, Bordeaux, France, 2Addiction Psychiatry/SANPsy, University of Bordeaux, Bordeaux, France, 3Institute for Cognitive and Brain Sciences, Tehran, Iran, 4Institute of Medical Science and Technology, Shahid Beheshti University, Tehran, Iran, 5Department of Radiology, Ludwig-Maximilians University, Munich, Germany, 6Ludwig-Maximilian University, Department of Radiology, Munich, Germany

1428 Frequency Dependence Changes in Dynamic Functional Connectivity Strength of Brain in Schizophrenia

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1429 Linking fMRI to Mobile Technologies in Schizophrenia: Pathophysiology of Executive deficits

Majid Abdollahi1, Maud Dupuy1, Marc Auriaombe2,3, Melina Fatséas2,3, Fuschia Serre2,3, David Misodrai4, Arnaud Tessier4, Pierre Schwetizer5, Joel Swendsen6, Sandra Chanraud5,1
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1430 Two Different Stories About Functional Connectivity in Schizophrenia: An fMRI Study

David Tomecek1, Jiri Horacek1, Filip Spaniel1, Jaroslav Tintěra2,1, Jaroslav Hlinka3,1
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1431 Dopamine-related Striatal Abnormalities as a promising biomarker of Schizophrenia

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1432 Thalamic intrinsic functional brain connectivity as a cross-diagnostic marker of psychosis

Jonathan Ipsen1, Dan Stein2, Jennifer Hislet3, Henk Temmingh1, Fleur Howells1
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1433 Diffusion Kurtosis Imaging Shows Gray Matter Abnormalities in Schizophrenia

Faye McKenndy1, Laura Miles1, Mariana Lazar2
1NYU School of Medicine, New York, NY

1434 EEG microstates, prodromal symptoms and cognitive decline in 22q11.2 deletion syndrome

Mirelena Tomescu1, Tonia Rho1, Valeria Kebets2, Maude Schneider3, Christoph Eliez4,5, Functional Brain Mapping Laboratory, Department of Fundamental Neuroscience, University of Geneva, Geneva, Switzerland, 6ECE, CIRC, SINAPSE & MNP, Singapore, Singapore, 7Office Médico-Pédagogique Research Unit, Department of Psychiatry, University of Geneva, Geneva; Switzerland

1435 A DWI study on short-range association U-fibers using a novel atlas in schizophrenia

Ellen JF1, Samuel Sarrazin2, Marion Leboyer2, Miguel Guevara3, Pamela Guevara4, Cyril Poupon5, Anton Grigis2, Josselin Houenou2
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1436 Modulation of resting-state connectivity and working memory in high schizotypal adults

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1437 Structural networks of insight in psychotic disorders

Daaoua Larabi4, Esther Opmeer1, André Aleman1, Gerlinda Pijnenborg1, Lisette van der Meer5, Marie-Jose van To6, Bransilava Curcic-Blake7
1University Medical Center Groningen, Groningen, Netherlands, 2University of Groningen, Groningen, Netherlands, 3Lentis Psychiatric Institute, Zuidlaren, Netherlands

## Sleep Disorders

1438 Brain Alterations in Insomnia Disorder: A Neuroimaging Meta-analysis

Masoud Tahmaspen1, Khadijah Noori1, Fatemeh Samaei1, Mojtaba Zare1, Kai Spiegelhalter1, Eus van Someren2,3, Simon Eckhoff2, Claudia Eckhoff3,9,10
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1439 Abnormal theta- and beta-band cortical rhythms in IRBD patients during a visuospatial attention task

Seong Jin He1, Donghoon Yeol1, Kwang Su Cho1, Pukyeong Seo1, Hyun Kim1, Kr-Young Jung2, Kyoung Hwan Kim1
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1440 Working memory and dorsal attention network of shift workers: a preliminary fMRI study

Woo Jung Kim1, No-Yaung Shin1, Yunjin Bak2, Yeol Choi1, Shin-ae Yoon2, Jong-Kwan Choi3,4, Jiyoung Bae3, Kook-Jin Ahn2
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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
Novel high resolution visualisation of white matter in stroke
Rishma Vidyasagar1, Robert Smith3, Fernando Calamante2, Gemma Lamp2, Peter Goodin1, Leeanne Carey2
1Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, 2Department of Anatomy and Neuroscience, University of Melbourne, Melbourne, Australia, 3The Florey Department of Neurosurgery and Mental Health, The University of Melbourne, Melbourne, Australia, 4School of Allied Health, LaTrobe University, Melbourne, Australia

Enhanced function of typical hubs supports near-normal language ability after early focal lesions
Anjali Raju Beharelle1, Solomi Asanidade2, Danny Sui2, Anthony Dick9, Susan Levine9, Ana Salodkin9, Anthony McIntosh7, Steven Smoll9
1SNS Lab, University of Zurich, Zurich, Switzerland, 2University of California, Irvine, Irvine, CA, 3University of Michigan, Ann Arbor, MI, 4Florida International University, Miami, FL, 5University of Chicago, Chicago, IL, 6University of Toronto, Toronto, Canada

Multiple factors shape the neural responses to brain damage: anatomy, topology, etiology
Binke Yuan1, Yuxing Fang1, Yanchao Bi1
1Beijing Normal University, Beijing, China

Predicted brain age after stroke
Natalia Egorova1, Franziskus Liem2, Vladimir Hochinski2, Amy Brodtmann1
1The Florey Institute of Neuroscience and Mental Health, Melbourne, Victoria, Australia, 2University of Zurich, Zurich, Switzerland, 3Western University, London, Ontario, Canada

Predicting recovery of upper limb function with MCA infarction patients using diffusion tensor image
Doo Young Kim1, Yu Mi Hwang2, Woo-Suk Toe2, Junsoo Noh1, Yoonhye Na2, Sung-Bom Pyun1
1Department of Physical Medicine and Rehabilitation, Korea University College of Medicine, Seoul, Korea, Republic of, 2Brain convergence research center, Korea University, Seoul, Korea, Republic of, 3Department of Biomedical Sciences, Korea University, Seoul, Korea, Republic of

Brain mapping for long-term recovery of gait after supratentorial stroke
Doo Hyun Kim1, Hyun Min Jun2
1VHS Medical Center Seoul, Seoul, Sout-l'ukpyolsi, 2VHS Medical Center Seoul, Seoul, Gunggi

Disruptions in rich club organization of acute ischemic stroke patients predict functional outcome
Sofia Ira Ktena1,2, Robert Smith3, Markus Schirmer2,3,4, Mark Etherton2, Anne-Katrin Giese2, Brittany Mills2, Daniel Rueckert1, Ona Wu5, Natalia Rost2
1Biomedical Image Analysis Group, Imperial College London, London, United Kingdom, 2Stroke Division & Massachusetts General Hospital, Harvard Medical School, Boston, MA, 3Computer Science and Artificial Intelligence Lab, Massachusetts Institute of Technology, Boston, MA, 4Department of Population Health Sciences, German Centre for Neurodegenerative Diseases, Boston, MA, 5Athinoula A. Martinos Center for Biomedical Imaging, Dept Radiology, Massachusetts General Hospital, Boston, MA

Network neurodegeneration after focal ischaemic stroke
Michelle Velasquez1, Sarah Pathak1, Emilio Warden1, Evan Curwood2, Juan Zhou1, Amy Brodtmann3
1University of Oxford, Oxford, United Kingdom, 2University of Melbourne, Melbourne, Australia, 3Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, 4Duke-National University of Singapore Medical School, Singapore, Singapore

Effective Connectivity of the Ipsilesional Action Observation Network After Stroke
Kaori Ito1, Kathleen Garrison1, Panthea Heydari1, Mona Sabhani1, Julie Werner1, Carolee Weinstein1, Lisa Aziz-Zadeh2, Sook-Lei Liew1
1University of Southern California, Los Angeles, CA, 2Yale University, New Haven, CT, 3California State University, Dominguez Hills, Los Angeles, CA

Frequency Fluctuations in Resting-State Predict High versus Low Depressive Symptoms after Stroke
Leeanne Carey1, Peter Goodin2, Gemma Lamp2, Tamara Tse3, Rishma Vidyasagar4
1La Trobe University, Melbourne, Victoria, Australia, 2Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, 3Florey Institute of Neuroscience and Mental Health, Melbourne, Victoria, Australia

Microstructure underlying white matter hyperintensities: influence of age and lesion load on DTI
Ludovica Griffanti1, Peter Rothwell1, Mark Jenkinson1, Giovanna Zamboni1
1FMRIB, Wellcome Centre for Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom, 2University of Oxford, Oxford, United Kingdom

Injury of corticofugal tracts from the secondary motor area in patients with putaminal hemorrhage
Jeong Pyo Seo1, SungHo Jang1
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Alterations in Functional connectivity with short and long post-stroke duration invested with fMRI
Lijuan Zhang1, Chunxiang Jiang2, Li Yi1, Xiaoma Liu3, Sagi Caj2, Rui Meng2
1Chinese Academy of Sciences, Shenzhen Institutes of Advanced Technology, Shenzhen, China, 2University of Chinese Academy of Sciences, Beijing, China, 3Neurology,Peking University Shenzhen Hospital, Shenzhen, China

Verbal fMRI activation changes in post-stroke aphasia after combined brain stimulation and language
Jane Allendorfer1, Rodolphe Nenert1, Amber Martin1, Joseph Griffis1, Jennifer Vannest2, Victor Sung1, Harrison Walker1, Amy Amar1, Victor Mark1, Xiaohua Zhou1, Jerzy Szaforski1
1University of Alabama at Birmingham, Birmingham, AL, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

Severity of motor deficit and spasticity affects brain functional connectivity of stroke patients
Nabilah Bhimrat1, Evelynne Castel-locanar1, Xavier De Boisssezon2, Claire Lebely1, Hélène Gros-Dagnac1, Isabelle Loubinoux1, Philippe Marque1
1ToNIC, Toulouse Neuroimaging Center, Université de Toulouse, Inserm, UPS, Toulouse, France, 2Department of Rehabilitation and Physical Medicine, Pôle Neurosciences, CHU de Toulouse, Toulouse, France, 3Inserm CIC 1436, CHU Toulouse, Université Toulouse III Paul Sabatier, Toulouse, France
Subconcussive head impacts may affect pruning in youth and high school American football players
Gowtham Murugesan1, Ryan Fisicaro1, Elizabeth Davenport1, Ben Wagner1, James Holcomb1, Jillian Urban1, Mireille Melikyan1, Derek Jones1, Joel Stitziel2, Christopher Whitlow1, Joseph Malijian1
1 UT Southwestern Medical Center, Dallas, TX, 2 Wake Forest School of Medicine, Winston-Salem, NC

Meta-Analysis of Diffusion MRI in the ENIGMA Military Brain Injury Group: Preliminary Results
Emily Dennis1, Elisabeth Wilde1, Mary Newsom1, Randall Scheibel1, Maya Troyanskaya1, Carmen Velez2, Benjamin Wade3, Anne Marie Drennrn4, Gerald York4, Erin Bigler5, Tracy Abdillakov6, Brian Taylor7, Carlos Jaradillo8, Blessen Espen9, Heather Belanger10, Rajendra Morey11, Courtney Haswell12, Harvey Levin12, Sidney Hinds12, William Walker12, Neda Jahanshad12, Paul Thompson12, David Tatea
1 University of Southern California, Los Angeles, United States, 2 University of Utah, Salt Lake City, UT, 3 Baylor College of Medicine, Houston, TX, 4 University of Missouri, St. Louis, MO, 5 UCLA, Los Angeles, CA, 6 Defense and Veterans Brain Injury Center, San Antonio, TX, 7 Alaska Radiology Associates, Anchorage, AK, 8 Brigham Young University, Provo, UT, 9 Polytrauma Rehabilitation Center, South Texas Veterans Health Care System, San Antonio, TX, 10 James A. Haley Veterans Hospital, Tampa, FL, 11 Psychiatry, Duke University, Durham, NC, 12 Department of Defense/United States Army Medical Research and Materiel Command, Fort Detrick, MD, 13 Imaging Genetics Center, Keck School of Medicine of University of Southern California, Los Angeles, CA

Connectomic changes due to cerebral micro-hemorrhages after traumatic brain injury in older adults
Andre Inimig, Kenneth Rostowski, Alexander Maher
1 University of Southern California, Los Angeles, CA

Degeneration of Distribution Properties for the TBI cases with Chronnic Symptoms
Maheen Adamson1,2, Keith Man1,4,5, Anna-Clare Milazzo1,5, Bernard Ng2, Sajiil Soman1,2,6, Jordan Nechvatal1, Jennifer Kong7, Stephanie Kolakowsky-Hayner4, Ansgur Forst4,5, J. Wesson Asphalt1,2, Xiaojuan Kang8
1 Defense and Veterans Brain Injury Center (DVBBC), Veterans Affairs Palo Alto Healthcare System, Palo Alto, CA, United States, 2 Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA, United States, 3 Department of Neurosurgery, Stanford University School of Medicine, Stanford, CA, United States, 4 Defense and Veterans Brain Injury, Silver Spring, MD, United States, 5 War Related Illness and Injury Study Center, Veterans Affairs Palo Alto Health Care System, Palo Alto, CA, United States, 6 Bith Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, United States, 7 Department of Rehabilitation Medicine, Ichohn School of Medicine at Mount Sinai, New York, NY, United States, 8 Department of Neurology and Neurological Sciences, Stanford University School of Medicine, Stanford, CA, United States

Structural brain changes of mild or moderate traumatic brain injury patients: a morphometry study
Eunkyung Kim1, Han Gil Seo1, Hyun Hoeng Lee1, Seung Hak Lee1, Seung Hong Choi1, Roh-Eul Yoo1, Won-Sang Cho1, Byung-Mo Oh1
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Structural network alterations in adolescence acute to chronic mild traumatic brain injury
Ai Wern Chung2, Khoo Im3, Rebekah Mannix3, Ellen Grant3
1 Division of Newborn Medicine, Boston Children’s Hospital, Harvard Medical School, Boston, MA, USA, 2 Division of Emergency Medicine, Boston Children’s Hospital, Harvard Medical School, Boston, MA, USA

Functional Connectivity in the Executive Control Network following Mild Traumatic Brain Injury
Natalie Dailey1, Sahil Bajaj1, Ryan Smith1, Adam Raikes1, Anna Alkozei1, William Killgore1
1 University of Arizona, Tucson, AZ

Effect of blue light therapy on cortical volume, sleep, and anxiety symptoms following mTBI
Sahil Bajaj1, Adam Raikes1, Natalie Dailey1, John Vanuk1, Anna Alkozei1, Brieann Satterfield1, Mareen Weber1, Isabella Ross1, Scott Rauch2, William Killgore1
1 University of Arizona, Tucson, AZ, 2 McLean Hospital, Department of Psychiatry, Harvard Medical School, Belmont, United States

Increased Network Connectivity Across All Frequency Bands in Adolescents With Concussion
Anna Hyder1, Naznin Virji-Babul2, Farouk Nathoo3
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Recovering consciousness: Thalamic sonication in acute post-trauma recovery
Martin Monte1, Caroline Schnakers2, Paul Vespa3
1 UCLA, Los Angeles, United States, 2 Casa Colina Research Institute, Pomona, United States

Differences in corpus callosum injury between cerebral concussion and diffuse axonal injury
HonDo Lee1, SungHo Jang2
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Loss of consciousness and injury of the ascending reticular activating system in mTBI: A DTT study
Jeong Pyo Seo1, JiWoon Lim2, SungHo Jang2
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Using multimodal imaging to investigate working memory and response to methylphenidate after TBI
Amy Jolly1, Sara De Simon1, Adam Hampshire2, Peter Jenkins1, Niiall Bourke1, David Sharp1
1 Imperial College London, London, United Kingdom, 2 Imperial College London, London

Longitudinal Neuroanatomical Analysis in Severe Traumatic Brain Injury
Evan Lutkenhoff1, Matthew Wright1, Paul Vespa2, Martin Monte2
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Alterations in Structural Correlation Networks with Prior Concussion in Collision-Sport Athletes
Muhammad Usman Sadig1, Diana Svalic2, Trey Shenk3, Evan breedlove4, Victoria Poole4, Greg Tamas4, Kausar Abbas5, Thomas Talavage5
1 School of Electrical & Computer Engineering, Purdue University, West Lafayette, IN, 2 Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN

Assessing the relative contribution of lesions and white matter damage to behaviour following TBI
Niiall Bourke1, Amy Jolly1, Karl Zimmerman1, James Cole1, Sara De Simon1, Peter Hellyer1, David Sharp1
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Electrophysiology and neuroimaging to identify biomarkers of sensorimotor dysfunction after TBI
Soha Saleh1, Benjamin Maas2, Didier Allexandre3, Armand Hoaxh4, Tyler Vitellio5, David Cunningham2, Guang Yue5
1 Kessler Foundation, West Orange, NJ, 2 Case Western Reserve University School of Medicine, Cleveland, OH
Emotion and Motivation Other

1489 Neural Correlates of Humor Motivation: An fMRI study
Yu-Cheng Chen1, Wei-Chin Hsu1, Yu-Chen Chau1
1National Tsing Hua University, Hsinchu, Taiwan, 2National Taiwan University of Science and Technology, Taipei, Taiwan

1490 Meta-analytic brain networks underlying emotion regulation
Nils Kohn1, Michael Riedel1, Taylor Sato1, Angela Laird1, Simon Eickhoff1, Carmen Morawetz2
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1491 How Valuation Biases Belief Formation: Dynamic Causal Mechanisms of Optimistic Updating
Bojana Kuzmanovic1, Lionel Rigoux1,2, Marc Tittgemeyer1
1Max Planck Institute for Metabolism Research, Cologne, Germany, 2Translational Neuromodulation Unit, Zurich, Switzerland

1492 The effectiveness of experiential emotion regulation versus cognitive defusion: An fMRI study
Yulin Wang1,2, Iris Vantieghem1, Debao Dong1, Daniele Marinazzo2, Marie Vandekerckhove1
1Vrije Universiteit Brussel, Brussels, Belgium, 2Ghent University, Ghent, Belgium, 3Brussels University Hospital, Brussels, Belgium, 4University of Electronic Science and Technology of China, Chengdu, China

1493* Regulating negative emotions affects dietary choice via modulation of value signals in vmPFC
Carmen Morawetz1, Hauke Heekeren1, Stefan Bode2
1Freie Universität Berlin, Berlin, Germany, 2The University of Melbourne, Melbourne, Australia

1494 Effects of Childhood Abuse and rs1360780 of the FKBP5 gene on Amygdala Functional Connectivity
Laura Dzeidlov1, Ilya Veer1, Nicole Oei2, Andreas Hein2, Henrik Walter1, IMAGEN consortium2
1Charité - Universitätsmedizin Berlin, Berlin, Germany, 2University of Amsterdam, Amsterdam, Netherlands, 3Multiple Institutes, Multiple Cities in Europe

1495 Handgrip Squeeze Increases Locus Coerules Activity
Xu Chen1, Ringo Huang1, Aaron Seitz1, Xiaoqiang Hu1, Shawn Nielsen2, Rico Velasco1, David Clewett2, Kristie Tu1, Briana Kennedy2
1UC Riverside, Riverside, CA, 2University of Southern California, Los Angeles, CA, 3New York University, New York, New York, United States

1496 Amygdala functional connectivity after negative stimulus exposure
Dara Ghahremani1,2, Ziwei Zhang1, Nicole Petersen1, Edythe London1
1UCLA, Los Angeles, CA

1497 Effects of approach and avoidance motor response training towards angry faces: An fMRI study
Heung Sik You1, Doo Young Kim1, Sang Hee Kim1
1Korea University, Seoul, Korea, Republic of

Emotional Learning

1498 Linking Implicit Approach-Avoid Behavior to Amygdala Activity during Fear Acquisition
Daniele Delloro1, Travis Evans1, Sirsha Gaddipati1, Jennifer Britton1
1University of Miami, Coral Gables, FL

1499 Interaction of acute stress and hair cortisol level in neural correlates of appetitive conditioning
Onno Kruse1, Isabel Tapia León1, Rudolf Stark1, Tim Klucken1
1University of Siegen, Siegen, Germany, 2Psychotherapy and Systems Neuroscience, Giessen, Germany

1500 Neural patterns of threat relevant social information during aversive learning
Irem Undeger1, Renee Visser2, Andreas Olsson1
1Karolinska Institute, Stockholm, Sweden, 2Medical Research Council – Cognition and Brain Sciences Unit, Cambridge, United Kingdom

1501* Closed-loop amygdala neurofeedback using emotional faces
Ronald Slodky1, Nada Frei1, Amelie Haug1, Yury Koush1, David Willinger1, Gustavo Pamplona1, Annette Bruhl1, Philip Stampa1, Frank Schamowski1
1University of Zurich, Zurich, Switzerland, 2Yale University, New Haven, CT

1502 Relationship between Sensation-seeking and Neural Correlates of Appetitive Conditioning
Isabel Tapia León1, Onno Kruse1, Rudolf Stark1, Tim Klucken1
1University of Siegen, Siegen, Germany, 2Psychotherapy and Systems Neuroscience, Giessen, Germany

1503 Mindfulness reduces amygdala reactivity to fear and self-reported stress in children: a RCT
Clemens Bauer1, Camila Caballero1, Ethan Scherer1, Martin West1, Michael Mrazek2, Dawa Phillips3, Susan Whitfield-Gabrieli1, John Gabrieli1
1Massachusetts Institute of Technology, Cambridge, MA, 2Harvard Graduate School of Education, Cambridge, MA, 3Center for Mindfulness & Human Potential, University of California, Santa Barbara, CA

1504 Surprise! Appetitive Prediction Error Shapes Extinction Learning
Martina Thiele1,2, Kenneth Yuen1,2, Raffael Kolinisch2
1Johannes Gutenberg University Medical Center, Mainz, Germany, 2German Resilience Center, Mainz, Germany

1505 Social interacting interface with neurofeedback signals for patients with autism spectrum disorder
Yi-Li Tseng1, Yi-Ling Chien1, Yang-Min Lin1, Yu-Pei Huang1
1Fu Jen Catholic University, New Taipei City, Taiwan, 2National Taiwan University Hospital, Taipei, Taiwan

Emotional Perception

1506 Multivariate pattern analysis (MVPA) of cross-modal emotional processing
Jocelyne Whitehead1, Jorge Armony2
1McGill University, Montreal, Quebec, 2McGill University, Montreal, Canada

1507 Insular Activity during Disgusting Sound Listening evaluated by Heartbeat Evoked Magnetic Fields
Yukako Kato1,2, Yuichi Takes1, Satochi Umeda1, Yukihiko Gato1, Masaru Mimura1, Makoto Fukuda2
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1508 Linking emotional arousal at encoding to subsequent memory performance at recognition using fMRI
Eva Loos1, Tobias Egli2, David Coynel1, Andreas Papassotiropoulos1, Dominique de Quervain1, Annette Milnik1
1University of Basel, Basel, Switzerland

1509 The Classification of Facial Expressions with Multiple Cultural Backgrounds: A Preliminary Study
Sutao Song1, Chunchu Liu2, Lijie Huang2, Zhiyuan Cao2, Jiacai Zhang2, Jing Feng2, Yuehua Tong3
1School of Education and Psychology, University of Jinan, Jinan, China, 2Information Science and Technology, Beijing Normal University, Beijing, China, 3Institute of Automation, Chinese Academy of Sciences, Beijing, China

1510 EEG reactions during the recognition of sentences concerning “myself” and “others”
Alexander Savostyanov1, Andrey Bocharov1, Alexander Saprygin2, Mikhail Vlasov2, Tuyana Alusheva2, Taisia Glushenkova2, Gennady Knyazev1
1Institute of Physiology and Basic Medicine, Novosibirsk, Russian Federation, 2Novosibirsk State University, Novosibirsk, Russian Federation, 3Shukshin Altai State Academy of Education, Biysk, Russian Federation

1511 Resting state connectivity correlates of trait alexithymia
Maria Reingardt1, Clara Gustafsson2, Håkan Olsson3, Malin Björnsdotter2,3
1Karolinska Institutet, Stockholm, Sweden, 2University of Gothenburg, Gothenburg, Sweden, 3Center for Social and Affective Neuroscience (CSAN), Linköping University, Linköping, Sweden

1512 Age-related decline of the insular cortex and emotion recognition
Yun Terasawa1, Satoshi Umeda1, Shiro Nishikata1, Toshiaki Kikuuchi1, Takaki Maeda2, Ryosuke Den2
1Department of Psychology, Keio University, Tokyo, Japan, 2Komagino Hospital, Tokyo, Japan, 3Japan Agency for Medical Research and Development, Tokyo, Japan, 4Department of Neuropsychiatry, Keio University, Tokyo, Japan

1513 Functional associations of the insula cortex with trait-like empathy – a fMRI study
Yun Li1, Tingting Zhang1, Ling Li4
1Key Laboratory for NeuroInformation of Ministry of Education, UESTC, Chengdu, China

1514 Altered neural oscillation in schizophrenia during facial recognition: an MEG study
Yuichi Takei1, Yutaka Kato2, Minami Tagawa2, Takehumi Ohki2, Noriko Sakurai2, Masato Fukuda4, Masahiro Nishiyama2
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1515* Bidirectional modulation between Temporal Pole and Amygdala in Emotion Processing:A Stereo-EEG study
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1516 Common and specific neural responses to emotional faces in depression and social anxiety
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1517 Anterior insula activity of semantic warning predicts later amygdala activation of aversive stimuli
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1518 Is Emotional Capture Driven by the Amygdala or the Insula? Evidence in Favor of the Insula
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1519 Resting-state functional connectivity predicts vocal emotion recognition in children
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1520 Neural Correlates of Alexithymia in Absence of Disorders: an ALE Meta-Analysis
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1521* Emotions induced by naturalistic stimuli explain right hemisphere activity in an independent sample
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1522 Neurofeedback training to influence conscious perception of emotional stimuli
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1523 Error-correction output codes for emotion recognition using partial least squares method
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EMOTION AND MOTIVATION
Emotional Perception, continued

1524 Pattern of brain activation related to early life stress in response to facial emotional expression
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1525 Empathy-related response towards faces of female rape victims — An fMRI study
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1526 Differences in Facial Emotion Recognition in Alexithymia Depending on Emotional Contents
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1527 Neural Mechanisms Underlying Emotional Incongruence and Emotion Regulation
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1528 A functional neuroimaging assay from the Adult Attachment Projective Picture System
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1529 Emotion recognition capability correlates with the global integration of the prefrontal cortex
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1530 Implicit priming of emotional control goal decreases neural markers of emotional processing
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1531 Mapping the Adolescent Reward System: Activation and Functional Connectivity
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1532 Effect of Contingent Reward on Learning Self-Regulation in SMA using fNIRS-Based Neurofeedback
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1533 Disentangling Reward Anticipation with Simultaneous Pupillometry / fMRI
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1534* Multilocus genetic profile scores account for gender differences in reactivity of the reward system
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1535 Noradrenergic primary and secondary reward processing in healthy subjects
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1536 The Pleasure of Feeling in Control: Reward Signal is Modulated by Action-Contingency
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1537 Neural responses to naturalistic alcohol cues differ by real-world contextual relevance
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Sexual Behavior

1538 Flexible reconfiguration of dynamic functional connectivity states underlying and PE disease
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1539 Neural dysactivity determines sexual dysfunction: Meta-analysis of functional neuroimaging studies
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GENETICS

Genetic Association Studies

1540 No association between white matter fractional anisotropy and the 5-HTTLPR
Tim Klucken1, Isabella Tapia Lebrón1, Carla Blecker1, Onno Kruse1, Tobias Stölder2, Rudolf Stark1,2
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Effects of the (Pro)relin receptor gene polymorphism on brain structure and cognitive function

1542

Tomoko Totsune, Kazuhito Totsune, Manabu Nakagawa, Hikaru Takeuchi, Hiroyuki Tomita, Ryuta Kawashima

Effect of Pro32 Leu polymorphism on amyloid-18 levels

1543

Megumi Hamatake, Taku Nakashima, Takeshi Otsuka, Yasuyuki Toki

Unearthing the Evolutionary History of Genetic Variants Influencing Human Cortical Surface Area

1544

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The PCSK6 Polymorphism Effect on Human Brain White Matter Asymmetries

1545

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Genetics factors influencing a common neurobiological substrate for mental disorders

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Thomas Muehleisen, Till Andlauer, Felix Hoffstaedter, Alexander Teumer, Celine Reinbold, Katharina Wittfeld, Stefan Heins, Per Hoffmann, Per Hoffmann, Susanne Moebus, Anja Teube, Henning Teismann, Heike Wersching, Klaus Berger, Markus Nothen, Hans-Joergen Grabbe, Katrin Amunts, Simon Eickhoff, Philipp Saemann, Bertram Mueller-Myhsok, Sven Cichon

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ENIGMA-Vis: A Portal to View Genetic Effects on the Human Brain Based on Large-Scale GWAS

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X-chromosome gene expression in health shape brain volume change in X-monosomic humans and mice

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BDNF Val66Met Polymorphism Modulates the Functional Connectivity of Olfaction-memory Network

1549

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Association of cross-disorders polygenic risk with age-related cortical and functional architecture

1550

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Eye Blink Rate as a Biomarker for Dopamine Indirect Pathway

1551

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The ENIGMA Cortical GWAS Collaboration identifies 81 genetic loci influencing cortical structure

1552

Neda Jahanshad, ENIGMA Cortical GWAS Consortium

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A non-invasive approach to Distinguish Mutation and Non-mutation cases of Glioma using MRI Images

1553

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High-dimensional voxel-wise genotype-wide association study

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Genetic Modeling and Analysis Methods

Heritability estimates on resting state fMRI connectivity phenotypes using ENIGMA analysis pipeline

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New 2StepLMM using Left and Right Volumes as Repeated Measures Improves Heritability Estimates

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Genetics of brain structure and function: 3,144 GWAS from UK Biobank data

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Methodological considerations in relating brain-wide transcriptomic and neuroimaging data

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Shared genetic and neurobiological implementation for task probing common cognitive concepts

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Cognitive functions and psychiatric diseases share genetic bases with resting state networks

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Genetic and environmental influence on functional connectivity among many brain regions

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Stratifying Common Genetic Risk May Provide Insight Into Schizophrenia And Subcortical Brain Volumes

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Sexually dimorphic influences of Aromatase microsatellite polymorphism (CYP19 (TTTAn)) on the brain

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Microstructural Heritability of the Corpus Callosum in Human

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Genetic diversity in the morphology of the corpus callosum

François Chouinard-Decorte1, John Lewis2, Jack Kent3, Melanie Carless4, Joanne Curran4, Tom Dyer5, Harald Göring6, Rene Olvera7, Peter Fox7, Laura Almosy7, Ravindranath Duggirala7, John Blangero8, David Glahn9, Alan C. Evans10

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Hemisphere-dependent Heritability of Human Brain White Matter Connectivity

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Dose response of the 16p11.2 distal copy number variant on intracranial volume and basal ganglia

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1564* Microstructural Heritability of the Corpus Callosum in Human

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Genetic diversity in the morphology of the corpus callosum

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Hemisphere-dependent Heritability of Human Brain White Matter Connectivity

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Neurogenetic Syndromes

1558 Transcriptional Alignment of Brain Network Disruption in Gene Dosage Disorders
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1559 Convergent subcortical brain alterations in 22q11.2 deletion syndrome and schizophrenia
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1557 Highly Atypical White Matter in 22q11.2 Deletion Syndrome: an ENIGMA-DTI Consortium Study
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1571 Smaller hippocampal subfield volumes in young adults with Down syndrome at 7 tesla
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Transcriptomics

1568 Transcriptomic Alignment of Brain Network Disruption in Gene Dosage Disorders
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1570 Highly Atypical White Matter in 22q11.2 Deletion Syndrome: an ENIGMA-DTI Consortium Study
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Thomas Scheidemantel4, Hudson Taylor4, Nancy Lee5, Declan Murphy7, Edward Bullmore7,
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UCLA, Los Angeles, CA, 9http://enigma.ini.usc.edu/ongoing/enigma-22q-working-group/22qwg/,
Los Angeles, United States

Transcriptomics

1572 Gene-brain-neuroticism in adults
Qiang Xu1, Feng Liu1, Wen Qin1, Bing Liu2, Tianzi Jiang2, Chunshui Yu1
1Tianjin Medical University General Hospital, Tianjin, China, 2Brainnetome Center & National, Institute
of Automation, Chinese Academy of Sciences, Beijing, China

1573 Untangling spatial specificity using null models for brain-wide neuroimaging and
transcriptomic data
Ben Fulcher1, Aurina Armatkevicu2, Alex Fornito4
1Sydney University, Sydney, NSW, 2Monash University, Melbourne, Australia, 3Monash University,
Clayton, Australia

HIGHER COGNITIVE FUNCTIONS

Decision Making

1574 The Time Course of Prediction Errors in Sequential Decision Making
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California, Los Angeles, CA, 4Center for Neuroimaging Science and Informatics, University of Southern
California, Los Angeles, CA, 5Department of Psychology, University of Southern California, Los Angeles, CA

1575 Human oculomotor system codes perceptual choices independent of sensory inputs and
motor outputs
Yuan-hao Wu1, Lisa Velosos1, Simon Ludwig1, Felix Blankenburg2
1Freie Universität Berlin, Berlin, Germany, 2Berlin School of Mind and Brain, Humboldt-Universität zu
Berlin, Berlin, Germany, 3Bernstein Center for Computational Neuroscience Berlin, Berlin, Germany

1576 Anodal tDCS on medial frontal cortex enhances social conformity and confirmation bias
Yi Huang1, Shaqian Jia Min Lim1, Rongjun Yu1
1National University of Singapore, Singapore, Singapore

1577 Transforming brain signals related to value evaluation and self-control into behavioural choices
Rujing Zha1, Junjie Bu2, Zhengde Wei3, Xiaochu Zhang2
1USTC, Hefei, China, 2USTC, Hefei, China, 3Shanghai Mental Health Center, Shanghai Jiao Tong
University School of Medicine, Shanghai, China

1578 Acute changes of 5-HT levels are not related to amount or delay processing in
intertemporal choice
Philipp Neukami1, Yacila Deza Araujo1, Michael Marxen1, Shakoor Pooehi2, Uwe Schwarzenbolz3,
Thomas Henkel1, Michael Smolka4
1Technische Universität Dresden, Dresden, Germany
2Communications University of China, Beijing, China, 3University of Southern California, Los Angeles, CA

1579 Quantum Reinforcement Learning during Decision Making: A Behavioral and fMRI Study
Ni-An Li1, Zhengde Wei3, Xiaochu Zhang2
1School of Life Sciences, University of Science and Technology of China, Hefei, Anhui, China,
2Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China,
3USTC, Hefei, China

1580 Making hard decisions shapes the neural coding of preferences
Stefan Bode1, Katharina Voigt1, Sebastian Speer1, Carsten Murawski1
1The University of Melbourne, Melbourne, Victoria

1581 Decisions to explore are preceded by increased baseline arousal
Anjali Raja Beharelle1, Marcus Grueschow1, Rafael Polania2, Marius Moisa1, Todd Hare1, Christian Ruff1
1SNS Lab, University of Zurich, Zurich, Switzerland

1582 Brain connectivity states predict participant engagement in web-based behavioral training
Marzie Sagha1, Jonathan Greenberg2, Karim Mukhida3, Sara Lazaro1, Javeria Hashmi4
1Dalhousie University, Halifax, Nova Scotia, 2Harvard Medical School, Mass General Hospital,
Cambridge, MA, 3Dalhousie University, NSHA, Halifax, Nova Scotia, 4Dalhousie University,
Halifax, Canada

1583 Modeling and Decoding Dynamic Decision-Making
Yvonne Yau1, Thomas Hinault1, Mahsa Dada1, Madeline Taylor1, Yashar Zeighami1, Lesley Fellows1,
Alain Daghet1
1Montreal Neurological Institute, McGill University, Montreal, Canada, 2John Hopkins University,
Baltimore, MD
Executive Function

1604
Causal account of brain network computations driving value-based choice
Marius Moisă1, Rafael Polania1, Marcus Grueschow2, Christian Ruff2
1SNS lab, University of Zurich, Zurich, Switzerland
2University of Zurich, Zurich, Switzerland, 3SNS lab, University of Zurich, Zurich, Switzerland

1605
Individuals rely less on social information when it is acquired voluntarily
Mark Orlaff1, Dongui Chung1, Brennan Delattre1, Jacob Lee1, Brooks King-Casas2, Pearl Chiu1
1Virginia Tech Carilion Research Institute, Roanoke, VA

1606
From avoiding risk to learning the optimal level – tDCS modulates risk taking in criminal offenders
Leonardo Nolette1, Lisa Wagels1,2,3, Lena Hofhansel4, Lara Keller4, Olivia Choy4, Adrian Raine4, Ute Häfner2,3
1Department of Psychiatry, Psychotherapeutics and Psychosomatics, Medical Faculty, RWTH Aachen, Aachen, Germany, 2JARA-Institute Brain Structure Function Relationship, Research Center Jülich and RWTH Aachen, Aachen, Germany, 3Institute of Neuroscience and Medicine 10, Research Center Jülich, Jülich, Germany, 4Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania, Philadelphia, United States

1607
Brain stimulation evidence for separable influences of value calculation and arousal on risky choice
Marcus Grueschow1, Miguel Garcia2, Sebastian Weissengruber1, Marius Moisa2, Christian Ruff1
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1608
Broad modulatory effects of dopamine on neural computations underlying impulsive decision-making
David Cole1, Lionel Rigoux1, Florian Brandl1, Andrea O. Diaconescu1, Zoltan Nagy1, Erich Seifritz1, Klaas Stephan2, Boris Queudnouf2
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1609
Language Distance Drives Adaptive Effects in the Anterior Cingulate Cortex in Bilinguals
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1610
Functional connectivity patterns systematically vary according to current task control demands
Doug Schultz1, Tokuya Ita1, Levi Solomon1, Rich Chen1, Ravi Mill1, Michael Cole1
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1611
Developmental changes in response inhibition linked to white matter maturation
Katherine Skok Madsen1,2, Louise Baruël Johansen1, Terry Jenni1, William Beard1
1Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, 2Institute of Technology, Metropolitan University College, Copenhagen, Denmark, 3Center for Human Development, University of California San Diego, La Jolla, CA

1612
An fMRI Investigation of Hot and Cool Executive Functions in Healthy Adults
Hoki Fung1, Su Ren Gan2, Shu-Hui Lee2,3, SH Annabel Chen2,4,5
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1613
Cognitive control is differentially modulated by ACC sulcal pattern in bi- and monolinguals
Nicolò Del Maschio1, Simone Sulpiri1, Keerthi Ramanujan1, Davide Fedeli1, Guosheng Ding1, Annalisa Caccia2,2, Junbin Abutaleb2
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1614
Lateralized beta-power as an online index of cognitive control processes
Adrian Fischer1, Roland Nigg2, Tilmann Klein1, Claudia Danielmeier1, Markus Ullsperger2
1OtGU, Magdeburg, Germany, 2Otto-von-Guericke University, Magdeburg, Germany, 3University of Nottingham, Nottingham, United Kingdom

1615
Investigating the neural correlates of cognitive flexibility with the Flexible Item Selection Task
Dina Dajani1, Paola Odrizola1, Melanie Winters1, Willa Voorhies1, Selene Marcano2, Adriana Baez2, Anthony Dick1, Lucia Uddin3
1University of Miami, Miami, FL, 2Yale University, New Haven, CT, 3University of Miami, Coral Gables, FL, 4Florida International University, Miami, FL

1616
Verbal Fluency Test and Its Hemispheric Correlates in Healthy Seniors and Neurocognitive Disorders
Hanna Lu1,2, Sandra S. M. Chan1, Linda C. W. Lom1
1The Chinese University of Hong Kong, Hong Kong, Hong Kong, 2Guangzhou Brain Hospital, Guangzhou, China

1617
Combined EEG and EMG differentiations between the Go/NoGo and Stop-Signal tasks
Lisa Raud1, Rene Westerhusen1, Niamh Dooley1, Rene Huster1
1University of Oslo, Oslo, Norway, 2Royal College of Surgeons in Ireland, Dublin, Ireland

1618
The Effects of Acute Alcohol Consumption on Insula Connectivity During Response Inhibition
Lauren Sherman1, Gail Rosenbaum1, Ashley Smith1, Morgan Bödtke1, Kara Fettich1, Jamie Patrianakos2, Laurence Steinberg1, Jason Chein1
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1619
Neural Correlates of Inhibition Function: Effects of Acute Aerobic Exercise and Cardiovascular Fitness
Li Lin1, Cui Jie1, Fan Ming-Xia1
1East China Normal University, Shanghai, China

1620
Data-driven characterization of executive function comorbidity across pediatric psychiatric disorders
Junaid Merchant1, J Bradley Cherry1, Mary Shaptek1, Meredith Powers2, Srishti Rau1, Yetta Myrick2, Xiaozhen You1, Madison Berl2, Lauren Kenworthy2, Chandan Vaidya1
1Georgetown University, Washington, DC, 2Children’s National Health Systems, Washington, DC
States of Mind: A hidden Markov model approach to spontaneous thoughts

Covert and overt face recognition, one or two routes?

Functional connectivity changes after behavioral interventions for mild cognitive impairment

Explore the DLPFC and ACC activities during the scientific conflict tasks: A preliminary fMRI study

EEG-correlates of mental attention are modified by the mode of cognitive tasks presentation

Imagery

Visual Imagery of Faces and Cars in Face-Selective Visual Areas

A Mixed-Methods Approach to Visual Imagery in Auditory Comprehension

Shared representations for observed and imagined stimuli

Allocentric spatial memory ability predicts intrusive memories in posttraumatic stress disorder
Music

1658 Decoding functional brain-imaging data to identify developmental disorders: the case of amusia
Philippine Althoyn1, Anne Cacín1, Sam Norman-Haignere2, Yohana Lévéque3, Isabelle Peretz4, Barbara Tillmann5, Robert Zatorre1
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1659 Neurocorrelates of predictions in musical harmony: A model-based fMRI study
Vincent Cheung1, Peter Harrison1, Lars Meyer1, Angela Friederici1, Marcus Pearce2, John-Dylan Haynes3, Stefan Koelsch4,1
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1660 Polyphyletic neuroplasticity of neural myelination associated with training of various musical arts
Wen-Sen Liu5, Ching-Ju Yang1,2, Tzu-Yi Hong1,2, Jen-Chuen Hsieh3,1
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1661 Inferior frontal gyrus supports structure-based online action planning: an fMRI study on pianists
Rober1ta Bianco3,4, Giacomo March1,2,1, Avrum Hollinger3, Christopher Steele1, Natalie Kohler1, Peter Keller6, Arno Villringer3,4, Daniela Sambler1,2,6
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1662 Neuroanatomical correlates of absolute pitch ability in blind musicians
Zhichao Xia1, Wenbin Pang1, Hua Shu1, Linjun Zhang2
1Beijing Normal University, Beijing, China, 2Beijing Language and Culture University, Beijing, China

1663 Wired for music? - a diffusion MRI based study of normative music perception skills
Archeri Raja1, Jacob Alappat2, Apurva Shah3, Megha Sharda2, Jeffrey Vall1, Madhura Ingalhalikar3, Nandini Singh4,1
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1664 Musical expertise is related to right-hemispheric language lateralization in left-handers
Esteban Villor-Rodríguez1, Jesús Adrián-Ventura2, María-Ángeles Polomar-García2, Mireia Hernández2, Gustav Oicina-Sempere2, Cesar Ávila2,3
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1665 Networks associated with adaptation and anticipation in rhythmic action
Bronson Harry1, Marcel Fialkiewicz2, Daniel Margulies4, Peter Keller1,1
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1666 Intersubject correlation analysis of EEG rhythm during listening to music
Yuta Inagaki1, Tatsuya Matsuzaki1, Kanako Ueno1, Satara Shimada1,2,1
1Meiji University, Kawasaki, Japan

1667 Effects of musical training on white matter diffusivities and speech in noise perception
Xiaoran Li1, Yi Du2
1CAS Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China

1668 The brain structure changes after musical training of composition: a DTI study on composer
Siu1a Guo1, Jinan1ong3,1, Diankun Gong1, Jing Lu1, Dezhang Yao2
1School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu, China

1669 Similarity of Individual Functional Brain Connectivity Patterns formed through Music Listening
Christof Karmanik1, Anthony Brandt1, Saba Elias3, Jennifer Townsend4, Elliott Silverman5, Jefferson Fraizer6
1Houston Methodist Hospital Research Institute, Houston, TX, 2Rice University, Houston, TX, 3Houston Methodist Research Institute, Houston, TX, 4Houston Methodist Hospital, Houston, TX, 5Lahey Hospital and Medical Center, Burlington, MA

1670 Superior frontal gyrus characterizes auditory selective attention in musically trained children
Leonie Kausel1, Francisco Zamararo2, Pablo Billeke2, Mary Elizabeth Sutherland3, Josefina Larrain-Valenzuela4, Francisco Aboliz5, Pontificia Universidad Católica de Chile, Providencia, Santiago, Chile, 2Pontificia Universidad de los Andes, Santiago, Chile, 3Pontificia Universidad Católica de Chile, Santiago, Chile, 4Pontificia Universidad Católica de Chile, Santiago, Chile, 5Pontificia Universidad Católica de Chile, Santiago, Chile

Reasoning and Problem Solving

1671 Creative Insight: The role of Nucleus accumbens and the dopaminergic mid-brain
Martin Tia1, Ronald Sladky2, Caroline Di Bernardi Lüft1, David Willinger1, André Hoffmann1, Michael Banissy1, Jaydev Bhattacharya1, Christian Windschütz1
1Medical University of Vienna, Vienna, Austria, 2University of Zurich, Zurich, Switzerland, 3Goldsmiths University of London, London, UK, 4Goldsmiths University of London, London, United Kingdom

1672 Dissociating language and thought in human reasoning
John Coetzee1, Micah Johnson1, Marco Iacoboni1, Martin Monti2
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1673 Arithmetic word problem solving is not merely text comprehension: neurocognitive evidence from fMRI
Ting-Ting Chang1,2, Tzu-Chen Lung2
1Department of Psychology, National Chengchi University, Taipei, Taiwan, 2Research Center for Mind, Brain & Learning, National Chengchi University, Taipei, Taiwan
1674 Spatial representation at different scales along the parahippocampal-retrosplenial axis
Michael Peet1, Yori Iriyori2, Rotem Monsa1, Shahar Arzy1
1Hadassah Hebrew University Medical Center, Jerusalem, Israel

1675 Nightmare math: What specific anxiety can do to the developing brain
Karim Kucan2,3, Ursina McCaskey4, Ruth O’Gorman Tuura2,4, Michael von Aster2,3,4
1Center for MR-Research, University Children's Hospital, Zurich, Switzerland, 2Children's Research Center, University Children's Hospital, Zurich, Switzerland, 3Neuroscience Center Zurich, University of Zurich and ETH Zurich, Zurich, Switzerland, 4Zurich Center for Integrative Human Physiology, University of Zurich, Zurich, Switzerland, 5Clinic for Child and Adolescent Psychiatry, German Red Cross Hospitals, Berlin, Germany

1676 Persistent Structural Differences in Developmental Dyscalculia: A Longitudinal Morphometry Study
Ursina McCaskey4, Michael von Aster2,3,4, Ruth O’Gorman Tuura2,4, Karim Kucan2,3
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1677 Numerical processing in relation to functional/anatomical landmarks of human parietal cortex
Elisa Castaldi1, Alexandre Vignaud2, Evelyn Eger1
1Cognitive Neuroimaging Unit, CEA DRF/I2BM, INSERM, NeuroSpin center, Paris, France, 2CEA DRF/I2BM, NeuroSpin center, Paris, France

1678 Number processing in typically developing children
Sertac Ustun1, Nazife Ayyildiz2, Emre Kale2, Oykü Manço Çalışır2, Pınar Uran3, Özkür Öner4, Sinan Olkun5, Metehan Çiçek1,2
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1679 Decoding Time in Human Frontal and Parietal Cortices
Masamichi Hayashi1, Wietske van der Zwaag2, Domenico Bueti3, Ryota Kanai4
1Osaka University, Suito, Japan, 2Spinco Centre for Neuroimaging, Amsterdam, Noord-Holland, 3International School for Advanced Studies, Trieste, Italy, 4Araya Inc., Tokyo, Japan

1680 Early numeracy and the associated fronto-parietal numerical networks in preschoolers: a longitudinal
Han Zhang1, Chong-Yaw Wee2, Joann Poh1, Qiong Wang1, Lynette P. Shek1,2,4, Qiang Wang2, Lynette P. Shek1,3,4, Seng Chong Yap1,2, Sophie Leung1,2,4, Elisa Castaldi1, Alexandre Vignaud2, Evelyn Eger1
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IMAGING METHODS

1681 Mapping the Dark Side: Retinotopic Deactivations in the Default Network
Tomas Knopen1, Daan van Es2, Martijn Barendregt3
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1682 Parameter optimization of MP2RAGE images on 7 T MRI
Uk-Su Choi1, Hirokazu Kawaguchi1, Yuihiro Matsuoka1, Tobias Kober1, Ichiro Kida1
1Center for Information and Neural Networks, NICT, Osaka, Japan, 2Siemens Healthcare K.K., Osaka, Japan, 3Advanced Clinical Imaging Technology, Siemens Healthcare AG, Lausanne, Switzerland

1683 Atrophy in the grey matter depending on speech score in cochlear implant users: a DARTEL-VBM study
Jeong-Sug Kyong1,2, Jae-Jun Han1, Seung-Ha Oh1, Myung-Whan Shuh1, Jun-Ho Lee1
1Seoul National University College of Medicine, Seoul, Korea, Republic of, 2Seoul National University Hospital, Seoul, Korea, Republic of

1684 The hMRI toolbox for quantitative imaging and in vivo histology using MRI (hMRI)
Christophe Phillips1, Evelyne Balteau2, Tobias Leutritz3, Antoine Lutti4, Martina Callaghan5, Bogdan Draganski1, Enrico Reimer2, Lars Ruthotto3, Maryam Seif4, Gabriel Ziegler5, Siawoosh Mohammadi3, Karsten Tabelow2
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1685 Mapping subcortical surface morphology in substance use: An ENIGMA addiction working group study
Yann Chye1, Scott Mackey2, Boris Gutman3, Paul Thompson3, Anne Uhlimann4, Patricia Conrod5, Hugh Garavan6
1Brain and Mental Health Laboratory, Monash University, Melbourne, Australia, 2Department of Psychiatry, University of Vermont, Burlington, VT, 3Imaging Genetics Center, Keck School of Medicine of University of Southern California, Los Angeles, CA, 4Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, 5University of Montreal, Montreal, Canada

1686 Fast brain tissue segmentation based on MP2RAGE at 7 T MRI
Uk-Su Choi1, Hirokazu Kawaguchi1, Yuihiro Matsuoka1, Tobias Kober1, Ichiro Kida1
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1687 Parcellation of the Human Hippocampus Based on Structural Covariance: A Replication Study
Ruyang Ge1, Paul Kot1, Xiang Liu1, William G. Honer1, Donna Lang2, Fidel Vila-Rodriguez1
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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
**IMAGING METHODS**

Anatomical MRI, continued

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**1688** Cortical Surface Complexity Changes in Patients with Transient Ischemic Attack

Wei Wei¹, Yulin Song², Yu Han¹, Chengshu Zhou¹, Dan Zhou¹, Fuding Zhang³, Qiming Xue⁴, Jining Liu⁵, Lijuan Zhao⁶, Coirong Zhang⁷, Lingyu Li⁸, Yufeng Zhang⁹, Xijie Xie¹⁰, Yating Lv¹¹

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**1689** 8-channel multi-transmit system for whole-brain 7 Tesla MRI; what’s the fuss about?

Diederick Staffers¹, Matthias Caan², Steven Scholte³, Serge Dumoulin⁴, Wietse van der Zwaag⁵

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**1690** Classification of Schizophrenic Patients and Healthy Subjects Using Structural MRI

Wasana Edin Arachchi¹, Yannin Peng², Xi Zhang³, Meng Liang²

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**1691** Atypical Sulcal Pattern in Children with 16p11.2 Deletion Syndrome

Banu Ahtam¹, P. Ellen Grant¹, Kiho Im²

1Boston Children’s Hospital/Harvard Medical School, Boston, MA

**1692** Segmentation-driven Total-Variation algorithm for Fetal Brain MRI Reconstruction

Sebastien Tourbier¹, Xavier Bresson², Patric Hagmann³, Simon K. Warfield⁴, Reto Meuli⁵, Ali Gholidour⁶, Meritxell Bach Cuadra⁷

1Department of Radiology, University Hospital of Lausanne (CHUV), Lausanne, Switzerland, 2Data Science and AI Center (DSAIR), Nanyang Technological University (NTU), Singapore, Singapore, 3Children’s Boston Hospital and Harvard Medical School, Boston, United States, 4Medical Image Analysis (MIAL), Centre d’Imagerie BioMédicale, University Hospital of Lausanne (CHUV), Lausanne, Switzerland

**1693** MRTool – a toolbox for the automated processing of magnetic resonance images

Marco Gonzatto¹, Daniele Mantini²

1KU Leuven, Leuven, Belgium, 2Oxford University, Oxford, United Kingdom, 3ETH Zurich, Zurich, Switzerland

**1694** Cortical Layer Parcellation in the General Population Using Inversion-Recovery MRI

Evi Baratz¹, Otti Tomen², Itti Shamir³, Dor Kaplan⁴, Daniel Barazany⁵, Assaf Horowitz⁶, Maya Faraggi⁷, Yaniv Assaf⁸

1Tel-Aviv University, Tel-Aviv, Israel, 2Tel Aviv University, Tel Aviv, Israel, 3George S. Wise Faculty of Life Sciences, Department of Neurobiology, Tel-Aviv, Israel

**1695** Measuring the periaqueductal gray in people with gender dysphoria and controls using VBM

Rene Seigner¹, Georg Krantz², Andreas Hahn³, Manfred Kleeble⁴, Urike Kaufmann⁵, Allan Hummer⁶, Christian Windschibbeber⁷, Siegfried Kaspar⁸, Rupert Lanzenburg⁹

1Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, 2Department of Obstetrics and Gynecology, Medical University of Vienna, Vienna, Austria, 3Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria

**1696** Structural Abnormalities in Early Alcohol Use Disorder Abstinence

Reza Momenan¹, Erica Grodin¹, Nicole Maclvaine¹

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**1697** A tool for displaying Freesurfer cortical parcellation-based analysis results in MATLAB

Christopher Adamson¹, Marc Seal²

1Murdock Children’s Research Institute, Parkville, Australia

**1698** Structural Changes of Precuneus/PCC in Premenstrual Syndrome

Ying Wei¹, Peng Liu², Xuejuan Yang³, Jinbo Sun², Wei Qin²

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**1699** Anatomical Differences in patients with Traumatic Brain Injury and Chronic Memory Complaints

Xiaoqian Karg¹, Keith Main¹², Anna-Clare Milazzo¹³, Bernard Ng¹, Salil Somani¹⁴, Jordan Nechvatal¹⁵, Jennifer Kong¹, Stephanie Kolakowsky-Hayner², Ansgar Furst³, J. Wesson Ashford⁴, Maheen Adamson⁵⁶

1Defense and Veterans Brain Injury Center (DVIBC), Veterans Affairs Palo Alto Healthcare System, Palo Alto, CA, United States, 2Defense and Veterans Brain Injury, Silver Spring, MD, United States, 3War Related Illness and Injury Study Center, Veterans Affairs Palo Alto Health Care System, Palo Alto, CA, United States, 4Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA, United States, 5Beth Israel Deaconess Medical Center; Harvard Medical School, Boston, MA, United States, 6Department of Rehabilitation Medicine, Icahn School of Medicine at Mount Sinai, New York, NY, United States, 7Department of Neurology and Neurological Sciences, Stanford University School of Medicine, Stanford, CA, United States, 8Department of Neursurgery, Stanford University School of Medicine, Stanford, CA, United States

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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21

Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

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**1700** Multivoxel Pattern Analysis of Structural MRI in Children and Adolescents with Conduct Disorder

Jianing Zhang¹, Mingyu Wang¹, Shuqiao Yao¹, Bingsheng Huang¹

1School of Biomedical Engineering, Health Science Center, Shenzhen University, Shenzhen, China, 2Medical Psychological Institute, Second Xiangya Hospital, Central South University, Changsha, China

**1701** Structural Covariance of Gray Matter Volume in HIV Vertically Infected Adolescents

Jialan Li¹, Lei Guo², Zhi Wen³, Hao Lei³, Fuchun Lin³, Xin Guo³, Guangyao Wu³

1Department of Radiology, Tianjin Medical University Cancer Institute and Hospital; Tianjin Medical U, Tianjin, SD, 2Wuhan University, Wuhan, China, 3Zhangnan Hospital of Wuhan University, Wuhan, China, 4Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences, Wuhan, China, 5State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, Wuhan, China, 6Department of Magnetic Resonance Imaging, Zhangnan Hospital, Wuhan University, Wuhan, China

**1702** Neuroplasticity after acute and repeated exposure to oxytocin: a multi-site MRI analysis

Kristoffer Månsson¹,2, Diana Cortes³, Tian Lin³, Marilyn Hort³, Ian Frazier³, Desiree Lussier³, David Fefer³, Håkan Fischer³, Natalie Ebner³,4

1Stockholm University, Stockholm, Sweden, 2Karolinska Institutet, Stockholm, Sweden, 3Uppsala University, Uppsala, Sweden, 4Stockholm university, Stockholm, Sweden, 5University of Florida, Gainesville, FL, 6University of California, San Diego Health, San Diego, United States, 7Institute on Aging, Gainesville, FL

**1703** Validating cerebellar nuclei fibre composition with multiparametric MRI

Fahad Sultan¹, Saba Parween¹, Haicon Mao²

1University Umea, Umeå, Vasterbottens Lan, 2University Tübingen, Tübingen, Deutschland (DEU)

**1704** Gray Matter Alteration Associated with Polygenic Risk Scores for ADHD in Adults

Kuangkui Duan¹, Jiayu Chen², Dongdong Lin³, Vince Calhoun⁴, Wenhao Jiang⁵, Barbara Franke⁶, Jian Buitelaar⁷, Martine Hoogman⁷, Alejandro Arias-Vasquez⁷, Jessica Turner⁷, Jingyu Li⁸

1Department of Electrical and Computer Engineering,The University of New Mexico, Albuquerque, NM, 2The Mind Research Network, Albuquerque, NM, 3Department of Psychology, Georgia State University, Atlanta, GA, 4Donder’s Institute for Brain, Cognition and Behaviour, Radboud University Medical Center, Nijmegen, Netherlands
1705 Replicability and stability of structure-brain-behavior correlations as a behavioral profiling tool
Shahrzad Kharabian Masouleh1, Sarah Genon2, Felix Hoffstaedter1,2, Simon Eickhoff3
1Institute of Neuroscience and Medicine (INM-7), Research Center Jülich, Jülich, Germany, 2Institute for Systems Neuroscience Heinrich-Heine University Duesseldorf, Düsseldorf, Germany

1706 Structural Neural Correlates of Wellbeing and Resilience
Justine Gatt1, Karen Burton1, Kylie Routledge1, Katrina Grasby2, Mayuresh Korgaonkar2, Stuart Grieve3, Peter Schofield1, Anthony Harris4, C. Richard Clark2, Leanne Williams3
1Neuroscience Research Australia (NeuRA) and UNSW, Sydney, Australia, 2University of Sydney, Sydney, Australia, 3Queensland Institute of Medical Research, Brisbane, Australia, 4Finders Institute, Adelaide, Australia, 5Stanford University, Stanford, United States

1707 New Anatomical Characterizations of the Posterior Sylvian Fissure using the Human Connectome Project
Zheng Yi Sun1, Denis Rivière1, Clarice Fischer1, Jean-François Mangin2
1UNATI, CEA/DRF/Neurospin, GIF-sur-Yvette, France

1708 Schizophrenia polygenic risk is associated with cortical structure: a multimodal vertexwise analysis
Tnismam Leit1, Stephan Ripke1, Jacob Vogel2, Susanne Erk3, Eva Brandt4, Ilya Veer5, Kristina Otto6, Janina Schweiger7, Heike Tost8, Markus Noethen9, Marcella Rietze10, Franziska Deghendt11, Stephanie Witt12, Andreas Meyer-Lindenberg13, Andreas Heinz14, Henrik Walter15
1Charité Universitätsmedizin Berlin, Berlin, Germany, 2Charité Department of Psychiatry and Psychotherapy, Berlin, Germany, 3Montreal Neurological Institute, Montreal, Canada, 4Zentrum – Universitätsmedizin Berlin, Berlin, Germany, 5Central Institute of Mental Health, Mannheim, Germany, 6Institute of Human Genetics, University Hospital Bonn, Bonn, Germany, 7University of Bonn, Bonn, Germany, 8Charités – Universitätsmedizin Berlin, Berlin, Germany

1709 Structural MRI predictors of cognitive decline in multiple sclerosis
Anand Eijlers1, Iris Dekker1, Kim Meijer1, Quinten Van Geest1, Hanneke Hulst1, Martijn Steenwijk1
1VU University Medical Center, Amsterdam, Netherlands, 2Institutes of Neurology and Healthcare Engineering, London, United Kingdom

1710 Sex, Size, and Performance: Callosal Dimensions Correlate with Mental Rotation Ability in Transient Changes in Cortical Thickness During a Season of Collegiate Football
Jillian Fu1, Feng Liu1, Qiaoqiang Li2, Huaigui Liu1, Junping Wang1, Feng Liu2, Gunter Schumann2, Chunshui Yu3, Alzheimer’s Disease Neuroimaging Initiative (ADNI)4
1Tianjin Medical University General Hospital, Tianjin, China, 2Tianjin University of Commerce, Tianjin, China, 3King’s College London, London, United Kingdom, 4Alzheimer’s Disease Neuroimaging Initiative, Washington, United States

1713* Spatiotemporal Neonatal Cortical Surface Atlases Construction from 39 to 44 Weeks Using 764 Subjects
Zhengwang Wu5, Gang Li6, Li Wang7, Wei Lin1, John Gilmore5, Dinggang Shen5
1University of North Carolina at Chapel Hill, Chapel Hill, NC

1714 Polymetric risk score for depression predict conversion of aMCI by affecting hippocampal volume
Jiyuan Xu1, Wen Qin2, Qiaoqian Li3, Huaigui Liu1, Junping Wang1, Feng Liu2, Gunter Schumann2, Chunshui Yu3, Alzheimer’s Disease Neuroimaging Initiative (ADNI)4
1Tianjin Medical University General Hospital, Tianjin, China, 2Tianjin University of Commerce, Tianjin, China, 3King’s College London, London, United Kingdom, 4Alzheimer’s Disease Neuroimaging Initiative, Washington, United States

1715 A voxel-based study of brain tissue properties in 465 normal elderly adults
Marco Taubert1, Anne Rue2, Elisabeth Roggenhofer3, Lester Melie-Garcia4, Sandrine Muller5, Ferath Kherif6, Antoine Lutr7, Bagdon Draganski8
1OvGU Magdeburg, Magdeburg, Germany, 2Ludwig-Maximilian University, Department of Psychiatry, Munich, Germany, 3Geneva University Hospital, Geneva, Switzerland, 4LREN, DNC, CHUV, UNIL, Lausanne, Switzerland, 5Massachusetts General Hospital, Boston, United States, 6LREN, D - CHUV, University Lausanne, Lausanne, Switzerland

1716 A fully automated cortical surface extraction pipeline for the macaque
Claude Lepage1, Konrad Wegst2, Jakob Seidlitz3, Caleb Sponheim4, Benjamin Jung5, Adam Messinger5, Alan C. Evans6
1McGill University, Montreal, Quebec, 2University of Cambridge, Cambridge, United Kingdom, 3NIH/University of Cambridge, Bethesda, MD, 4NIH, Bethesda, MD, 5McGill University, Montreal, Canada

1717 Anatomical Variation of the Sensorimotor Cortices Are Related to Postural Stability
Julia Jaadle7, Timo Nurmi7, Jaakko Vallinoja7,8, Harri Piitulainen9
1Department of Neuroscience and Biomedical Engineering (NBE), Aalto University, Espoo, Finland, 2Aalto Neuroimaging (ANI), Aalto University, Espoo, Finland

1718 Habitud Daily Caffeine Consumption and its Cessation Changes Human Grey Matter Density
Yu-Shuang Lin1,2, Janine Weibel1,3, Hans-Peter Landolt4,5, Francesco Santini6,7, Corrado Garbassa8,9, Martin Mayer2,10, Helen Slawik11,2, Stefan Borgwardt3, Christian Cajochen4,5, Carolin Reichert2,12
1Centre for Chronobiology, Psychiatric University Hospital Basel, Basel, Switzerland, 2Transfaculty Research Platform Molecular and Cognitive Neurosciences, University of Basel, Basel, Switzerland, 3Neuropsychiatry and Brain Imaging, Psychiatric University Hospital Basel, Basel, Switzerland, 4Institute of Pharmacology and Toxicology, University of Zurich, Zurich, Switzerland, 5Zürich Center for Interdisciplinary Sleep Research, University of Zurich, Zurich, Switzerland, 6Radiological Physics, University Hospital Basel, Basel, Switzerland, 7Department of Biomedical Engineering, University of Basel, Basel, Switzerland, 8Clinical Sleep Laboratory, Psychiatric University Hospital Basel, Basel, Switzerland

1719 Patterns of Co-Alteration in Autism Spectrum Disorder: A Meta-Analytic and Network-Based Approach
Donato Lilija1, Andrea Nani1, Jordi Manuella, Tommaso Costa1, Sergio Duca2, Roberto Keller2, Franco Cauda2
1FOCUS Lab, Department of Psychology, University of Turin, Turin, Italy, 2GCS-IMR, Koelliker Hospital and Department of Psychology, University of Turin, Turin, Italy, 3University of Turin, Department of Psychology, Turin, Italy, 4Adult Autism Centre, DSM Local Health Unit ASLT2, Turin, Italy, Torino, Italy
1720 Structural differences in the occipital lobe in pediatric ADHD
Wenhao Jiang1, Jiayu Chen2, Kuaikui Duan3, Vince Calhoun4, Barbara Frankel5, Jan Bueltelaar6, Martine Hoogman7, Alejandro Arias Vasquez7, Jessica Turner8
1Georgia State University, Atlanta, GA, 2The Mind Research Network, Albuquerque, United States, 3The University of New Mexico, Albuquerque, NM, 4MindLAB, Albuquerque, NM, 5Department of Human Genetics, Donders Institute for Brain, Cognition and Behaviour, Radboud Universi, Nijmegen, Netherlands, 6Donders Institute, Nijmegen, Netherlands, 7Donders Institute for Brain, Cognition and Behaviour, Radboud University Medical Center, Nijmegen, Netherlands, 8Department of Psychology, Georgia State University, Atlanta, GA

1721 Impact of psychiatric comorbidities on brain connectivity in autism spectrum disorders
Rajesh Kan1, Jose Maximo1
1University of Alabama at Birmingham, Birmingham, AL

1722 Modulation of aggression by prefrontal transcranial direct current stimulation – an fMRI study
Carmen Weidler1, Christina Regenbogen1,2, Lena Hafhansen3, Benjamin Clemens4, Julie Breedly5, Frank Schneider6,7, Ute Habel6
1Department of Psychiatry, Psychotherapy and Psychosomatics, Medical Faculty, RWTH Aachen, Aachen, Germany, 2JARA-Institute Brain Structure and Function Relationship, Research Center Jülich and RWTH Aachen, Aachen, Germany, 3Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, 4Department of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, PA, 5Institute of Neuroscience and Medicine (INM-10), Research Centre Jülich, Jülich, Germany, 6Institute of Neuroscience and Medicine 10, Research Center Jülich, Aachen, Germany, 7JARA-Institute Brain Structure and Function Relationship, Research Center Jülich

1723 Effectiveness of neurostimulation on emotion regulation in criminal offenders
Lena Hafhansen1, Christina Regenbogen1, Carmen Weidler, Ute Habel, Adrian Raine1, Frank Schneider2, Benjamin Clemens1
1Department of Psychiatry, Psychotherapy and Psychosomatics, Medical Faculty, RWTH Aachen, Aachen, Germany, 2Institute of Neuroscience and Medicine (INM-10), Research Center Jülich, Jülich, Germany, 3Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, 4JARA-Institute Brain Structure and Function Relationship, Research Center Jülich and RWTH Aachen, Aachen, Germany, 5Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania, Philadelphia, United States

1724 Peripheral oxytocin and vasopressin modulates regional brain activity differently in schizophrenia
Siyi Li1, Leah Rubini2, Li Yao1, Su Lui1
1Westchina Hospital, Sichuan University, Chengdu, China, 2Women’s Mental Health Research Program University of Illinois at Chicago, Chicago, Chicago, IL

1725 Testing the reliability of analytic signal based functional connectomes in resting-state fMRI
Rubin Zhang1, Francesco Cotier1, Tatia Lee1,2
1Laboratory of Neuropsychology and Laboratory of Social Cognitive Affective Neuroscience, University of Hong Kong, Hong Kong, 2The State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, Hong Kong

1726* Acceleration of Golden Angle-Sampled fMRI Data with Data-Driven Priors and Low-Rank Constraints
Harry Mason1, Karla Miller1, Mark Chiew1
1University of Oxford, Oxford, United Kingdom

1727* Distortion-Matched Anatomical Imaging Using Inversion Recovery-Prepared EPI for High-Resolution fMRI
Adnan Shah1, Takashi Ueguchi2, Guoxiang Liu2
1CINet, NICT, Osaka, Japan, 2CINet, NICT, Saitama, Japan, Japan

1728 Structure detection in pseudowords: The role of morphological complexity in visual word recognition
Svetlana Schuster1, Mathias Scharinger2, Colin Brooks1, Aditi Lohin1, Gesa Hartwigsen3
1University of Oxford, Oxford, United Kingdom, 2Phonetics Research Group, Dept of German Linguistics & Marburg Center for Mind, Brain and Behavior, Marburg, Germany, 3Department of Neuropsychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1729* Ultra-high-resolution fMRI: a critical assessment
Kendrick Kay1, Keith Jamison2, Luca Vizzioli3, Ruyuan Zhang4, Eshed Margalit4
1University of Minnesota, Minneapolis, MN, 2Weill Cornell Medical College, New York City, NY, 3Stanford University, Stanford, CA

1730 BOLD and Pigheaded: Resting State Networks in the Porcine Brain
Robert Austin Bend1, Jose Manzano1, Paula Montesinos2, Javier Sanchez-Gonzalez2, Gonzalo Lopez-Martín3, Stephen Smith2, Eugene Duff4, Borja Ibdaréz1
1Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), Madrid, Spain, 2Philips Healthcare Iberia, Madrid, Spain, 3FMRIIB, Wellcome Centre For Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom, 4Institute of Psychology, Department of Paediatrics, Oxford, United Kingdom

1731* Evolving experience: Intrinsic connectivity, creativity, & intelligence predict dynamics of thought
Adam Turnbull1, Hoo-Ting Wang1, Charlotte Murphy1, Daniel Margulies1, Beth Jefferies1, Jonathan Smallwood1
1University of York, York, United Kingdom, 2University of York, York, 3Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 4University of York, Heslington, United Kingdom

1732* Cardiovascular response is phase-shifted while respiratory response has a fixed polarity in rs-fMRI
Wanyong Shin1, Catherine Koenig1, Mark Lowe1
1Cleveland Clinic, Cleveland, OH

1733* FMRI Constrained Source Analysis on Stimulus-Preceding Negativity before Face, Word and Symbol
Yasunori Katani1, Yoshihito Ohgami2, Nobukiyo Yoshida2, Akira Kunimatsu3, Shigeru Kiryu2, Yusuke Inoue4
1Tokyo Institute of Technology, Tokyo, Japan, 2The University of Tokyo, Tokyo, Japan, 3International University of Health and Welfare, Ohtawara, Japan, 4Kitasato University, Sagamihara, Japan

1734 Functional Reorganization of the Right Cerebellum VI in dyslexic Readers
Hehui Li1, Na Wei1, Xiaoxia Feng2, Manli Zhang3, Xiuju Yang1, Yue Gao1, Xiangzhi Meng1, Guosheng Ding1
1Beijing Normal University, Beijing, China, 2Peking University, Beijing, China

1735* Resting-state white matter-cortical connectivity in non-human primate brain
Tung-Lin Wu1, Feng Wang1, Muwei Li1, Kurt Schilling2, Yurui Gao3, Adam Anderson1, Li Min Chen1, Zhaohua Ding1, John Gore1
1Vanderbilt University Institute of Imaging Science, Nashville, TN, United States
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<td>Dynamic Reconfiguration of Functional Brain Networks in aMCI Patients</td>
<td>Qiuning Li1,2, Xuetong Wang1,2, Ying Han1,2, Shuyu Li1,2</td>
<td>School of Biological Science &amp; Medical Engineering, Beihang University, Beijing, China, 2Beijing Advanced Innovation Centre for Biomedical Engineering, Beihang University, Beijing, China, 3Xuanwu Hospital of Capital Medical University, Beijing, China, 4Center of Alzheimer’s Disease, Beijing Institute for Brain Disorders, Beijing, China</td>
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<td>Test-Retest Reliability of Task-evoked, Resting-state BOLD and Cerebral Blood Flow Measures</td>
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<td>MIRI137 Gene Polymorphism Is Associated with Neural Activation of the Posterior Cingulate Cortex</td>
<td>Zhifang Zhang1, Qiumei Zhang2, Wan Zhao3, Xiongying Chen4, Jun Li5</td>
<td>Beijing Normal University, Beijing, China, 2State Key Laboratory of Cognitive Neuroscience and Learning &amp; IDG/McGovern Institute for Brain Resea, Beijing, China</td>
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<td>Predicting Fusiform Face Area Activity Using Brain Surface Decoding</td>
<td>Annah Eltaher1,2, Mark Tenzer1, Jonathan Lismisk1, Stephen LaConte1,2</td>
<td>Virginia Tech Carilion Research Institute, Roanoke, VA, 2Virginia Polytechnic Institute and State University, Blacksburg, VA</td>
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<td>Tuna Stefan Aslan1, Stefan Seidel1, Ahmad Amini2, Maike Manecke2, Anna Szelenyi2, Eva Matt2, Paul R. Martin3, Christian Wöber3, Roland Beisteiner3</td>
<td>1Medical University of Vienna/Department of Neurology, Clinical fMRI Study Group-High Field MR Center, Vienna, Austria, 2Medical University of Vienna/Department of Neurology, Vienna, Austria, 3Griffith University, School of Applied Psychology, Brisbane, Australia</td>
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<td>The design matters: How to detect neuronal correlates of baby body odors</td>
<td>Laura Donners1, Thomas Hummel1, Ilona Croy2</td>
<td>1Department of Psychosomatics, Technical University Dresden, Dresden, Germany, 2Smell and Taste Clinic, Department of ORI, Technical University Dresden, Dresden, Germany</td>
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<td>Low-Acoustic-Noise DTI and fMRI with Compact 3T MRI and Sinusoidal Gradients</td>
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<td>1GE Global Research, Niskayuna, NY, 2Mayo Clinic, Rochester, MN, 3GE Global Research, Bangalore, India</td>
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<td>Catastrophizing in Chronic Low Back Pain is associated to altered cerebral processing: an fMRI study</td>
<td>Liliana Jorge1, Liana Rocha2, Antonio Cruz Jr1, Pedro Paulo Oliveira Jr1, Edson Amaro Jr1</td>
<td>1Instituto de Radiologia HCFMUSP, São Paulo, Brazil, 2Instituto do Cérebro, São Paulo, Brazil</td>
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<td>A proof-of-concept study of an efficient S1 tactile paradigm suitable for clinical application</td>
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<td>1Neuromed Research University, Sidney, Australia, 2Australian Catholic University, Sydney, Australia, 3University of New South Wales, Sydney, Australia, 4University of Wollongong, Wollongong, NSW</td>
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<td>Self-construct priming modulates oxytocin effects on ACC activity during self-reflection</td>
<td>Shihui Han1, Yi Liu2</td>
<td>1Peking University, Beijing, Beijing, 2Peking University, Beijing</td>
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<td>The effects of COMT Val158Met polymorphism on brain activity during working memory in old age</td>
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<td>1State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China</td>
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<td>Ability to Modulate Left Frontal Activation Is Associated with Switch Performance in the Middle-aged</td>
<td>Meng-Tien Wu2,3, Pei-Fang Tang1,2, Nai-Chi Chen1,2, Joshua Goh1,2, Tai-Liu Chou1,2, Yun-Chin Hsu1, Wen-Yih Tseng3</td>
<td>1School and Graduate Institute of Physical Therapy, College of Medicine, National Taiwan University, Taipei, Taiwan, 2Department of Long-Term Care, Yonghe Cardinal Tien Hospital, Taipei, Taiwan, 3Graduate Institute of Brain and Mind Sciences, College of Medicine, National Taiwan University, Taipei, Taiwan, 4Neurobiology and Cognitive Science Center, National Taiwan University, Taipei, Taiwan, 5Department of Psychology, College of Science, National Taiwan University, Taipei, Taiwan, 6Institute of Medical Device and Imaging, College of Medicine, National Taiwan University, Taipei, Taiwan</td>
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<td>Spatio-temporal regularity in mapping sequences sharpens population receptive field estimates</td>
<td>Elisa Infantti1, D. Samuel Schwarzkopf2</td>
<td>1UCL, London, United Kingdom, 2University of Auckland, Auckland, New Zealand</td>
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<td>1EPFL, Lausanne, Switzerland, 2University of Geneva, Geneva, Switzerland, 3FCBG, Geneva, Switzerland, 4EPFL, Geneva, Switzerland</td>
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<td>1Imperial College London, London, London, City of, 2Inviso London, London, United Kingdom, 3Imperial College London, London, United Kingdom</td>
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<td>Rangaprakash Deshpande1, Reza Tadayonnejad2, Gopikrishna Deshpande2, Joseph O’Neill2, Jamie Feusner1</td>
<td>1University of California Los Angeles, Los Angeles, CA, 2Auburn University, Auburn, AL</td>
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<td>Rangaprakash Deshpande1, Gopikrishna Deshpande2, Reza Tadayonnejad2, Joseph O’Neill2, Jamie Feusner1</td>
<td>1University of California Los Angeles, Los Angeles, CA, 2Auburn University, Auburn, AL</td>
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<td>Bob Hou1, Sanjay Bhatai1, Jeffrey Carpenter1</td>
<td>1WVU, Morgantown, WV</td>
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<td>Ali Khatibi1,2, Shahabeddin Vahdat1, Ovidiu Lungu2, Chadi Ceyou2, Jurgen Finsterbusch3, Veronique Marchand-Pauvert3, Julien Cohen-Adad3, Habib Benali4,5, Julien Doyon2,3</td>
<td>1BIC, MNI, McGill University, Montreal, Canada, 2UNF, CIUHM, University of Montreal, Montreal, Canada, 3Neurology Department, Stanford University, Stanford, US, 4Psychiatry Department, University of Montreal, Montreal, Canada, 5University Medical Center Hamburg-Eppendorf, Hamburg, Germany, 6INSERM, Paris, France, 7Ecole Polytechnique de Montréal, Montreal, Canada, 8Concordia University, PERFORM Center, Montreal, Canada</td>
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1755 Contributions of alexithymia and autism to the pain empathic response – a dimensional approach
Jialin Li1, Lei Xu2, Xiaoxiao Zheng3, Meina Fu4, Kesthuang Li5, Keith Kendrick6, Benjamin Becker2
1University of Electronic Science and Technology of China, Chengdu, China, 2University of Electronic Science & Technology of China, Chengdu, China

1756 Functional Connectivity between Putamen and Primary Motor Cortices for Two Finger Movement Tasks
Xinpeng Deng1, Hongxia Wang2, Zijian Feng1, Yufeng Zang2, Jue Wang1
1Center for Cognition and Brain Disorders, Institutes of Psychological Science, Hangzhou Normal University, Hangzhou, China

1757 Effects of Serotonin and Dopamine Depletion on Neural Prediction Error Computation
Anna-Lena Frey1, Ciara McCabe1
1University of Reading, Reading, United Kingdom

1758 Mapping color-selective columns in V2 across cortical depth using GE-EPI and SE-EPI
Daniel Haenelt1, Robert Trampel1, Shahin Nasr2, a, Jonathan Polimeni2, a, Roger Tootell2, a, Martin Sereno4, Nikolaus Weiskopf1
1Department of Neurophysysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 2Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, 3Department of Radiology, Harvard Medical School, Boston, MA, 4Department of Psychology, College of Sciences, San Diego State University, San Diego, CA

1759 Functional organisation along the hippocampal longitudinal axis predicts recollection
Izabela Przezdzik1, a, Myrthe Faber1, a, Koen Haak1, a, Andre Marquand1, a, Guillen Fernandez1, a, Christian Beckmann1, a
1Donders Institute for Brain, Cognition and Behaviour, Centre for Cognitive Neuroimaging, Radboud Univ, Nijmegen, Netherlands, 2Radboud University Medical Centre, Department of Cognitive Neuroscience, Nijmegen, Netherlands, 3Oxford Centre for Functional Magnetic Resonance Imaging of the Brain (FMRIB), University of Oxford, Oxford, United Kingdom

1760 The Impact of Blast Exposure and the Ameliorating Effect of a Collar Device: An fMRI study
Wei-Tang Chang1, Kelly Giovanello1, Weili Lin1, Weihong Yuan1, Kim Barber Foss1, Thomas Staci1, Ryan Galloway1, Christopher DiCesare1, Jonathan the Brain (FMRIB), University of Oxford, Oxford, United Kingdom

1761 Ultrahigh-resolution fMRI reveals distinct brain-wide networks of different hippocampal subfields
Xing Qian1,2, Michael Chee3,4, Tih-Shih Lee5, Choon Guan Lim6,7, Juan Zhou8
1Duke-NUS medical school, National University of Singapore, Singapore, Singapore, 2NYU Child Study Center, NYU Langone Medical Center, New York City, United States, 3Department of Psychology, University of Miami, Miami, United States, 4Duke-NUS Medical School, Singapore, Singapore, 5Duke-National University of Singapore Graduate Medical School, Singapore, Singapore, 6Department of Child and Adolescent Psychiatry, Institute of Mental Health, Singapore, Singapore, Singapore, 7Department of Child and Adolescent Psychiatry, Institute of Mental Health, Singapore, Singapore, 8Duke-National University of Singapore Medical School, Singapore, Singapore

1762 Localization and spatial scales of the “pain-selective” brain activities in the human using fMRI
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1763 Resting State Functional Reorganization after Self-regulation of M1 Activity Using Real-time fMRI
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1764 Intra- and Inter-scanner Reliability of RS-fMRI in Voxel-wise Whole-Brain Analysis
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1765 Decreased spatiality of large-scale connectivity patterns in older adults
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1766 Temporal dynamics and effective connectivity in the distributed system of familiar face processing
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1767 Validation of the canonical hemodynamic response function model used in fMRI studies
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1772 Global Signal, Parcellation and Null Network Models Influenced Functional Connectomic Analysis  
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1773 Expressive suppression to faces and IAPS pictures: Common and differential neural networks  
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1774 Global functional over-connectivity in 16p11.2 CNV deletion carriers  
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1775 Defining the hypersexuality network in impulse control disorders  
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1776 Activating vs. inhibiting motor responses: Attention, stimulus valence and their congruence  
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1777 Lateralization of Resting State Networks in Children  
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1778* Whole Lifespan Development of Hippocampal Functional Connectivity  
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1779 Robust arterial functional MRI (fMRI) signal and its application  
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1780 Altered resting-state fMRI activity in recently concussed youth (mostly) resolves with recovery  
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1781 Increasing Statistical Power in fMRI Studies with Maximally Informative Factors  
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1782 Functional Connectivity Underlying Cognitive Control Deficits in Autism Spectrum Disorder  
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1783 Aberrant network effective connectivity in obsessive compulsive disorder during simple motor control  
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1784 Regional variation of hemispheric functional segregation and integration  
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1785 Altered dynamic connectivity in the disorders of consciousness  
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1786 Temporal Dynamics of the Amplitude of Low Frequency Fluctuations  
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1787 Coupling Between Cerebral Blood Flow and Functional Connectivity in Bipolar and Depressive Disorders  
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1788 The Multisite Canadian Dementia Imaging Protocol: Reproducibility of Resting-State fMRI Connectivity  
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1794 Brain Hub Regions Show Greater BOLD Signal Variability
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1797 Increased hippocampal subregions functional connectivity after sleep deprivation
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1799 Simultaneous BOLD-fMRI and FDG-fPET distinguishes neural and vascular components of brain activity
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1801 Exploring the high-resolution EPI fMRI protocol to reduce susceptibility-related BOLD signal dropout
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1802 FMRI of the brainstem and hypothalamic centers involved in the arterial baroreflex
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1803 Repeated application of realtime-fMRI neurofeedback in tobacco dependent patients
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1804 Nicotine craving: an fMRI study via MR-compatible e-cigarette equipment and machine learning
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1805 Uncovering temporal dynamics of the networks for body motion processing at 9.4 tesla
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1806 Tracking acute autonomous nervous system (ANS) responses to acute stress using fMRI
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1807 The effects of a single bout of exercise on brain activity during a working memory task
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1808 On the correlation between dynamic fMRI local connectivity and dynamic PET
*Amir Omidvarnia*, Zaohlin Chen, Sharna Jamadar, Shenpeng Li, Francesco Starazzini, Jakub Baran, Ian Harding, Mangor Pedersen, Andrew Zalesky, Graeme Jackson, Gary Egan, David Abbott*1
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1809 Characterization and Modeling of Negative Hemodynamic Response Function in Human Early Visual Cortex
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1810 Real-time Brain States Classification using 3D Convolutional Neural Networks
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1811 Botulinum toxin A modulates parietal cortex activation in post-stroke arm spasticity
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1812 Characterizing Functional Plasticity of the Human Visual Pathway in Patients with Restored Vision
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1813 Pain Sensitivity is Encoded by the Predictive Power of the Cingulate Cortex and Prefrontal Cortex
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1814 Heritable subtypes of brain activation in the 7 tasks of Human Connectome Project
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1815 Effective connectivity modulation related to handedness: A DCM study of the HCP motor task
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1816 Subthalamic Nucleus Activity Differentiates Successful Stopping and Predicts Trait Impulsivity
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1817 The influence of fatigue on face and word encoding
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1818* Mechanisms of negative BOLD responses
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**Diffusion MRI**

1819 Variations in Hippocampal Structural Connectivity Differentiate Response to ECT in Major Depression
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1820 DTI can predict cognitive outcome after rehabilitation in children with acquired brain lesion
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1821 Cortical layers mapping with combined multicompartamental relaxometry and diffusion tensor imaging (7T and 11.7T)
*Justine Bouchaud*, Christophe Destrieux, Fabrice Poupon, Illyes Zemmoura, Jean-François Mangin, Cyril Poupon*1
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1822 Spatial-Angular Upsampling of Baby Diffusion MRI Data via Joint X-q Space Regularization
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1823 Role of Gaussian and non-Gaussian MRI diffusion assessment of brain in disorders of consciousness
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A Diffusion Tensor Imaging Study on Incomplete Traumatic Spinal Cord Injury
Bing Yao, Zhiqiu Jiang, Benjamin Mass, Gail Forrest, Steven Kirshblum
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Diffusion MRI based Hippocampal Projections in Offsprings of a Mouse Model of Intrauterine Injury
Dan Wu, Jun Lei, Han Xie, Michael Mclane, Iris Burd
Johns Hopkins University School of Medicine, Baltimore, MD

Diffusion Imaging and Generalized Fractional Anisotropy in Contact Sport Collegiate Athletes
Alexander Asturijus, Zach Jakobes, Carinna Torgerson, Niharika Gajawellil, Ross Romanov, Charles Liu, Meng Law, John D. von Horn
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MagnUS: An Ultra-High Performance Gradient Coil Design that Improves Diffusion and Functional MRI
Ek Tan, Dominic Graziani, Mark Vermylen, Vincent Ho, Maureen Hood, Heechin Chae, Thomas Foo
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White Matter Development In Preterm Infants At Term Equivalent Age: Assessment Using TBSS
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Whole-brain tract-specific analysis of white matter degeneration with cervical spondylotic myelopathy
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Abnormal extracellular free water and spatial configuration of neurites in schizophrenia
Nina Kraquljic, Thomas Anthony, Frank Skidmore, William Monroe, Jan Marstrander, David White, Adrienne Lahti
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Abnormal neural basis of individual variability in eye-gaze perception: an eye-tracking and DTI-MRI study
Alice Vinçon-Leite, Ana Saitovitch, Hervé Lemaître, Jean-Marc Taccchella, Elza Rechtmans, Elise Douard, Nadia Chabanile, Anne Philippe, David Grevent, Raphael Calmon, Francis Brunelle, Nathalie Boddart, Monica Zibovich
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Early White Matter Changes and Their Association with Later Motor Impairment in Very Preterm Infants
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White Matter Alterations In Heavy Cannabis Users
Gina Monteverde, Arafat Angulo, Laura Nava, Sarael Alcauter Solórzano
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**IMAGING METHODS**

**Diffusion MRI, continued**

1842 Differences in white matter integrity related to language production between young and old adults
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1843 Asymmetric Orientation Distributions Mitigate Gyral Bias in Cortical Tractography
Ye Wu¹, Yunjing Feng¹, Dinggang Shen⁵, Pew-Thian Yap¹
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1844 Probing Tissue Microstructure Using Microscopic Diffusion Kurtosis Imaging
Tiantian Xu¹, Weili Lin¹, Dinggang Shen⁵, Pew-Thian Yap¹
¹University of North Carolina at Chapel Hill, Chapel Hill, NC

1845 Anatomically-guided streamline clustering in newborns using AnatomiCuts
Viviana Siless¹, Anastasia Yendiki¹, Lilla Zollei¹
¹Athinoula A. Martinos Center for Biomedical Imaging, MGH, Harvard Medical School, Boston, MA

1846 Accurate Noise Estimation in Diffusion MRI Using x-q Space Matching
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¹University of North Carolina at Chapel Hill, Chapel Hill, NC

1847* Validation of high angular resolution diffusion MRI models in the human brain with PS-OCT
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1848 Diffusion Driven Label Fusion for White Matter Multi-Atlas Segmentation
Guillermo Gallardo¹, Sylvain Bouix², Demian Wassermann²
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1849* 400µm dMRI and tractography of early human visual system projections ex vivo using kT-dSTEAM at 9.4T
Francisco Fritz¹, Robbert Harms¹, Shibharthi Sengupta¹, Sven Hildebrand¹, Alard Roebroeck¹
¹Maastricht University, Maastricht, Netherlands

1850 Prediction of Diffusion-Weighted Appearance in Developing Infant Brain using Cycle-Consist Models
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1851 Improving current normalization approaches to detect longitudinal changes in grey matter using DTI
Florencia Jacobacci¹, Jorge Jovicich², Gonzalo Lerner¹, Arnaud Bore³, Márcia Renata Hidalgo-Marques³, Knollil Taverna Chair⁵, Edson Amarô³, Jorge Armon³, Julien Doyon⁶, Valeria Dellia-Maggioni³
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1852 Congenital Unilateral Sensorineural Hearing Loss: Neuroimaging, Hearing and Vestibular Findings
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1853 Multi-site Diffusion MRI Reproducibility
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**EEG**

1854 Evaluating different latency variability correction methods using P300 in oddball paradigms
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1855 EEG Correlates of Self-referential Content of Thoughts
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1856 Abstract and Concrete Concepts Activate Distinct Temporal Networks: an EEG Source Localization Study
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1857 Working Memory Updating Training Improves fluid intelligence in Children with Learning Disability
Wei Lu¹, Renlai Zhou¹
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1858 EEG mega-analysis of 12 studies shows differences in baseline frequency amplitude across regions
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1859 Repetition Suppression is Less Efficient in the Luteal Phase of the Healthy Menstrual Cycle
Rachael Sumner¹, Suresh Muthukumaraswamy¹
¹The University of Auckland, Auckland, New Zealand
1860 **Response of ERD/ERS-based Specific Indices upon Changes in High-frequency Vibrations**

Mi-Hyun Choi, Ji-Hun Jo, Hyeong-Sik Kim, Soon-Cheol Chung

*Konkuk University, Chungju, Korea, Republic of

1861 **Predictions through Evidence Accumulation**

Álvaro Darriba, Florian Waszak

*Université Paris Descartes - CNRS, Paris, France

1862 **Quantitative and Qualitative EEG (Topographic/Tomographic) biomarkers of malnutrition**

Maria Bragas Vega, Jorge Bosch-Bayard, Janina Galler, Leslie Prichep, Lidice Galan, Yanbo Guo, Pedro Valdes Sosa

*Cuban Neuroscience Center, La Habana, Cuba, The Clinical Hospital of Chengdu Brain Science Institute, MOE Key Lab for Neuroinformation, University of Electronic Science and Technology of China, Chengdu, China, Institute for Neurobiology, UNAM, Campus Juriquilla, Queretaro, Mexico, Chester M. Pierce MD Division of Global Psychiatry, Massachusetts General Hospital, Boston, MA, Department of Psychiatry, New York University School of Medicine, New York, NY, Cuban Neuroscience Center, La Habana, Cuba, The Clinical Hospital of Chengdu Brain Science Institute, MOE Key Lab for Neuroinformation, Chengdu, China

1863 **Does corticospinal excitability depend on oscillatory phase of the μ-rhythm?**

Lærke Krahne, Mads Safeldt, Anke Karabanov, Leo Tomasevic, Sáyoichi Tashiro, Chieo Chung, Borhan Javaminir, Kristoffer Madsen, Hartwig Siebner

*DTU Compute, Technical University of Denmark, Kgs. Lyngby, Denmark, Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre, Denmark, Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong, Hong Kong, Department of Neurology, Copenhagen University Hospital Bispebjerg, Copenhagen, Denmark

1864 **Toward network-based neuremarkers of brain disorders using dense-EEG**

Mohamed Hassan, Aya Kabbard, Fabrice Wendling

*Rennes 1 University, Rennes, France

1865 **Cross-frequency synchronization during resting-state EEG and its link to autonomic arousal**

Kaat Alaerts, Julio Rodriguez Larios

*KU Leuven, Leuven, Belgium, KU Leuven, University of Leuven, Leuven, Belgium

1866 **Chronic Jaw Pain is Characterized by Altered Beta Oscillations in Sensorimotor and Prefrontal Cortex**

Wei-en Wang, Ambar Roy, Rachel Judy, Gaurav Misra, Margaret Ribeiro-Dasilva, Roger Fillingim, Stephen Coombes

*Department of Applied Physiology and Kinesiology, University of Florida, Gainesville, FL, United States, Department of Applied Physiology and Kinesiology, University of Florida, Gainesville, FL, Quantified Habits Inc., Washington DC, WA, Department of Restorative Dental Science, University of Florida, Gainesville, FL, Department of Community Dentistry and Behavioral Science, University of Florida, Gainesville, FL

1867 **The impact of room size on inhibition control: an EEG study**

Chengwen Luo, Arunika Pillay, Adam Roberts, Chee Kiong Sah, Georgios Christopoulos

*Nanyang Technological University, Singapore, Singapore

1868 **Single-trial oscillation detection reveals stable inter-individual differences in rhythmicity**

Julian Kossiess, Thomas Grandy, Douglas Garrett, Markus Werkle-Bergner

*Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Berlin, Germany, Max Planck Institute for Human Development, Berlin, Germany, Berlin, Germany, Helios Klinikum Berlin-Buch, Berlin, Germany

1869 **Test-retest reliability of resting and task-related EEG measures**

Nicolas Lange, Andreas Pedroni

*University of Zurich, Zurich, Zurich

1870 **1Hz tRMS induces frequency specific increase in small-worldness. Graph theory analysis of wPLI**

Sujas Bhardwaj, Rajonikanth Panda, Venkateswara Reddam, Niravathavi M, Keshav J, Pramod Pa, Rose Bharathi

*National Institute of Mental Health and Neuro Sciences, Bengaluru, India, Coma Science Group, Université de Liège, Liège, Belgium

1871 **Automatic localization and labeling of EEG electrodes using MRI anatomical images**

Abhishek Bhutada, Pradyumna Sepulveda, Rafael Torres, Sergio Ruiz, Ranganatha Sitarasan

*University of California, Berkeley, Berkeley, CA, Institute of Cognitive Neuroscience (ICN), London, United Kingdom, Pontificia Universidad Catolica de Chile, Santiago, Chile

1872 **Oscillatory and flexibility are characteristics important for a brain in fear?**

Muthuraman Muthuraman, Gabriel Gonzalez Escamilla, Venkata Chaitanya Chirumamilla, Nabin Koirala, Abdul Rauf Anwar, Sergiu Groppa

*Johannes Gutenberg University Hospital Mainz, Mainz, Germany, University hospital of the Johannes-Gutenberg University Mainz, Mainz, Germany, Johannes Gutenberg University, Mainz, Mainz, Germany, University of Engineering & Technology, Lahore, Lahore, Pakistan

1873 **The Fingerprint Method for the automatic detection and removal of EEG artifacts**

David Stone, Gabriella Tamburro, Patrice Fiedler, Jens Haueisen, Silvia Comani

*University “G. d’Annunzio” of Chieti-Pescara, Chieti, Italy, Technische Universität Ilmenau, Ilmenau, Germany

1874 **An auditory-cognitive system in the aging brain: frequency-following response predicts cognition**

Jinghua Ou, Akshay Maggu, Celestina W.Y. Pang, Patrick C.M. Wong

*Department of Linguistics and Modern Languages, The Chinese University of Hong Kong, Hong Kong SAR, China, Brain and Mind Institute, The Chinese University of Hong Kong, Hong Kong SAR, China

1875 **Deep networks can learn subject-invariant electroencephalography microstate sequences**

Hamidreza Jamalabadi, Apoorva Sikka, Sarah Alizadeh, Marina Krylova, Johan Van der Meer, Deepthi Bathula, Martin Walter

*University of Tubingen, Tubingen, Germany, Indian Institute of Technology Ropar, Ropar, India, Queensland Institute of Medical Research, Brisbane, Australia

1876 **An Introduction to the Microstate EEGlab toolbox**

Andreas Pedroni, Andreas Poulsen, Lars Kai Hansen, Nicolas Lange

*University Zurich, Zurich, Switzerland, Technical University of Denmark, Copenhagen, Denmark, University of Zurich, Zurich, Zurich

1877 **Effects of phase and frequency on EEG microstate stability**

Anna Costo, Padmavathi Sundaram, Christoph Michel

*Functional Brain Mapping Lab, University of Geneva, Geneva, Switzerland, Center for Biomedical Imaging (CIBM), Geneva, Switzerland, Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, Boston, MA

1878 **Dopaminergic modulation of EEG resting-state microstates**

Laura Gozi, Amatya Mackintosh, Christina Arendt

*University Psychiatry Clinics Basel, University of Basel, Basel, Switzerland

**IMAGING METHODS**

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
1879* An atlas of intracranial EEG: “normal” neurophysiological activity in different cortical regions
Birgit Frauscher1, Nicolas von Ellenrieder1, Rina Zelmann1, Irena Doležalová2,3, Lorella Minotti2, André Olivier1, Jeffery Hall1, Dominique Hofmann1, Dang Nguyen4, Philippe Kahane5, François Dubeau6, Jean Goltman7
1Montreal Neurological Institute and Hospital, McGill University, Montreal, Canada, 2Univ. Grenoble Alpes, Grenoble Institute of Neuroscience & Neurosurgery Department CHUGA, Grenoble, France, 3St. Anne’s University Hospital and Faculty of Medicine, Masaryk University, Brno, Czech Republic, 4Centre hospitalier de l’Université de Montreal - Hôpital Notre-Dame, Montreal, Canada

1880 Differentiation of schizophrenia using common spatial pattern of P300 networks
Fall Li1, Yuanyuan Liao1, Yajing Si1, Yangsong Zhang2, Dezhong Yao1, Peng Xu3
1University of Science and Technology of China, Chengdu, China, 2Southwest University of Science and Technology, Mianyang, China

1881 EEG source activity signatures of early protein energy malnutrition
Yanbo Guo1, Maria Bringes Vega2,3, Pedro Valdes Sosa2,3
1University of Science and Technology of China, Chengdu, China, 2University of South Florida, Tampa, Florida, USA, 3University of Antioquia, Medellin, Colombia

1882 Stimulus presentation de-correlates EEG trial-to-trial response variability
Sukhamanjit Shumman1, Russell Butler1, Kevin Whittingstall1
1University of Sherbrooke, Sherbrooke, Canada

1883 An 8-channel portable EEG Amplifier based on Dry electrode
Xie Jiaxin1, Dongrui Gao1, Tang Xingfeng1, Liu Peng1, He Yuan1, Ren Yanli1, Jiang Dong1, Ying Shaofei1, Zong Xin1, Dong Lijuan1, Chen Jiaxing1, Tiejun Liu1, Dezhong Yao1
1University of Electronic Science and Technology of China, Chengdu, China, 2Cuban Neuroscience Center, La Habana, Cuba

1884 Abnormality of the brain network during behavioral inhibition in individuals with childhood trauma
Sungkean Kim1, Ji Sun Kim2, Miseon Shim3, Seung-Hwan Lee4, Chang-Hwan Im5
1Hanyang University, Seoul, Korea, Republic of, 2Department of Psychiatry, Soonchunhyang University Cheonan Hospital, Cheonan, Korea, Republic of, 3Department of Psychiatry, University of Missouri-Kansas City, Kansas City, USA, 4Inje University, Ilsan-Park Hospital, Goyang, Korea, Republic of, 5University of Maryland, Baltimore, USA

1885 Compassion meditation of Mahayana Buddhism induces ACC activity: an EEG component cluster analysis
Hang Lin Leung1, Junling Gao1, Bonnie Wai Yan Wu1, Hin Hung Sik1
1The University of Hong Kong, Hong Kong, Hong Kong

1886 Making mistakes in public: Being observed magnifies physiological responses to errors in Chinese
Changrun Huang1, Yu Rongjun2
1University of Electronic Science and Technology of China, Chengdu, China, 2Southwest University of Science and Technology, Mianyang, China

1887 An ERP study on the social-affective modulation of mimicry
Birgit Rauchbauer1, Daniela Plobigan2, Corinna Lorenz3, Claus Lamm4
1University of Vienna, Vienna, Austria, 2Peking University, Beijing, China, 3University of Saarland, Saarbrücken, Germany

1888 A spatial-temporal clustering algorithm uncovering shared EEG components across task paradigms
Guang Ouyang1, Akaysha Tang1
1The University of Hong Kong, Hong Kong, Hong Kong

1889 N170 as a neural signature for generic real-world visual expertise: a review and meta-analysis
Minghao Dong1, Guangling Ye1, Jia Wu1, Jimin Liang1
1XiDian University, Xian, ShaanXi, 2School of Life Science and Technology XiDian University, Xian, ShaanXi, 3School of Foreign Languages, Northwestern Polytechnical University, Xian, ShaanXi, 4School of Life Science and Technology, XiDian University, Xian, ShaanXi

1890 Markers of high geographic altitude on the ongoing EEG
Alejandro Weinsten1,2, Wael El-Deredy3, Pável Prado4
1Universidad de Valparaíso, Valparaíso, Chile, 2Advanced Center for Electrical and Electronic Engineering, Valparaíso, Chile, 3University of Manchester, Manchester, United Kingdom, 4Universidad Técnica Federico Santa Maria, Vina del Mar, Valparaíso

1891 TRSA reveals information embedded in pre- and post-stimulus in congruency sequence effect
Zhuo-Hu Su1,2,3
1Research Center for Brain and Consciousness, Taipe, Taiwan

1892* A millisecond-scale real-time decoded neurofeedback system for alpha amplitude modulation
Jia Liu1, Gan Huang1, Qianqian Lin1, Linling Li1, Chunqi Chang1, Zhiqiu Zhang1
1School of Biomedical Engineering, Health Science Center, Shenzhen University, Shenzhen, China

1893 Fine scale understanding of microstates in simultaneous EEG-fMRI study
Dengfeng Huang1, Burak Akın1, Jürgen Hennig1, Pierre LeVan1
1University Medical Central Freiburg, Freiburg im Breisgau, Germany

1894 Laplacian montages beyond nearest-neighbors, in 3D 10-20 locations
Daniel Pittman1, Paolo Federico2
1University of Calgary, Calgary, Alberta

1895 Modelling of Brain State Duration in EEG using Hidden Semi Markov Model
David Aroyo1, Wael El-Deredy3, Nelson Trujillo-Barreto2
1Universidad de Valparaíso, Valparaíso, Chile, 2University of Manchester, Manchester, United Kingdom

1896 Focal post-stimulation hippocampi ripple activity in simultaneous mice electrophysiological and fMRI
Shuoyue Zhang1, Burak Akın1, Jürgen Hennig1, Pierre LeVan1
1University Medical Central Freiburg, Freiburg im Breisgau, Germany

Imaging Methods Other
1897 UBO Detector – A Fully Automated Pipeline for Extracting White Matter Hyperintensities
Jiyang Jiang1, Tao Liu2, Wanlin Zhu2, Rebecca Koncz1, Hoo Liu2, Teresa Lee3,Perminder Sachdev4, Wei Wen1
1University of New South Wales, Randwick, Australia, 2Beihang University, Beijing, China, 3Beijing Tiantan Hospital, Beijing, China

1898 Neuroimaging young children without sedation in a Sub-Saharan African setting
Catherine Wedderburn1,2, Shumay Yeung1, Sivenesi Subramoney1, Shantanu Joshi1, Katherine Nair1, Nynke Graevenost2, Jonathan Underwood3, Annerine Roos4, Diana Gibb5, Heather Zar6, Dan Stein1, Kirsten Donald7
1London School of Hygiene & Tropical Medicine, London, United Kingdom, 2University of Cape Town, Cape Town, South Africa, 3University of California, Los Angeles, Los Angeles, CA, 4Imperial College London, London, United Kingdom, 5MRC Clinical Trials Unit, University College London, London, United Kingdom, 6SAMRC Unit on Child & Adolescent Health, Cape Town, South Africa, 7SAMRC Unit on Risk and Resilience in Mental Disorders, Cape Town, South Africa
The effect of walnut rolling training on hand function and corticospinal tract
Jan Freyberg1, Niwidget Contributors2
1ASIT Data Science, London, Greater London, 2Various, Various, United Kingdom

Altered transient state dynamics in Multiple Sclerosis
Jeroen Van Schependonk1, Diego Viduarte2, Marie B Dhooghe1, Miguel D’haeselee1, Vincent Wens1, Xavier De Tiége1, Sergei Goldberg1, Mark Woolrich1, Guy Nagels1
1Vrije Universiteit Brussel, Brussels, Belgium, 2Oxford Centre for Human Brain Activity (OHBA), Oxford, United Kingdom, 3National MS Center Melsbroek, Melsbroek, Belgium, 4Université Libre de Bruxelles, Brussels, Belgium, 5Oxford University, Oxford, United Kingdom

Developmental Changes in Movement-related Brain Activity during Early Childhood – An MEG Study
Douglas Cheyne1, Cecilia Jobst1, Rita Al-Loos1, Wei He2, Huizhen Tang3, Blake Johnson2
1Hospital for Sick Children, Toronto, Ontario, 2Macquarie University, Sydney, NSW, 3Albert Einstein School of Medicine, Bronx, NY

Neurobiology of Self-agency during Reality Monitoring and Speech Feedback Monitoring
Jan Freyberg1, Gary Green11, Joachim Gross5, Khalid Hamandi1, Richard Henson9, Klaus Kessler4, Anna Nobre8, Mark Woolrich8, Krish Singh1
1Aalto NeuroImaging, Aalto University, Espoo, Finland, 2Cognitive Neuroimaging Centre, Lee Kong Instituteet, Stockholm, Sweden 3The Hospital for Sick Children, Toronto, Canada, 4Aston University, Birmingham, United Kingdom, 5University of Glasgow, Glasgow, United Kingdom, 6Trinity College Dublin, Dublin, Ireland, 7University College London, London, United Kingdom, 8University of Oxford, Oxford, United Kingdom, 9University of Cambridge, Cambridge, United Kingdom, 10Hokuto Hospital, Hokkaido, Japan, 11University of York, York, United Kingdom

Novel Stimulator for Intermittent Photic Stimulation in Magnetoencephalographic Recordings
Veikko Jaumak1,2, Parasuraman Padmanabhan3, Sundaramurthy Kuma1, Vimalan Vijayaragavan1, Ellen Partington Victoreen1, Eelio Eliaia Lai Ting-Yu1, Sochin Mishra1, Balázs Gyulás1,2
1Azito Neuroimaging, Azito University, Espoo, Finland, 2Cognitive Neuroimaging Centre, Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, 3NatMEG, Karolinska Institutet, Stockholm, Sweden

Cross-site comparison of connectivity at rest and gamma oscillations in the MEGUK Partnership cohort
Lorenzo Magazzini1, Benjamin Hunt2, Bethany Routley1, Michael Hall1, Kevin Prinsloo3, Sofie Meyer1, Simone Heideman2, Tina Emera4, Yoshihito Shigihara5,6,7,8, Gareth Barnes1, Matthew Brookes1, Paul Furlong1, Gary Green1, Joachim Gross5, Khalid Hamandi1, Richard Henson9, Klaus Kessler1, Anna Nobre1, Mark Woolrich1, Krish Singh1
1Cardiff University, Cardiff, United Kingdom, 2University of Nottingham, Nottingham, United Kingdom, 3The Hospital for Sick Children, Toronto, Canada, 4Aston University, Birmingham, United Kingdom, 5University of Glasgow, Glasgow, United Kingdom, 6Trinity College Dublin, Dublin, Ireland, 7University College London, London, United Kingdom, 8University of Oxford, Oxford, United Kingdom, 9University of Cambridge, Cambridge, United Kingdom, 10Hokuto Hospital, Hokkaido, Japan, 11University of York, York, United Kingdom

A neural model for post-trauma survival based on resilience and cross-network connectivity
Marcella Brunetti1, Laura Marzetti1, Gianna Sepe1, Filippo Zapposodi1, Vittorio Pizzella1, Fabiola Sarchione1, Federica Vellante1, Giovanni Martinotti1, Massimo Di Giannantonio1
1University of Chieti, Chieti, Italy, 2University of Bari, Bari, Italy

Spatio-temporal structure of time lags in resting state magnetoencephalographic data
Laura Marzetti1, Alessio Basti1, Gian Luca Romani1, Abraham Snyder2, Vittorio Pizzella1
1University of Chieti, Chieti, Italy, 2Washington University in St. Louis, St. Louis, MO

Combining MEG and articulography to study neural control of speech movements
Blake Johnson1, Yi Pu1, Douglas Cheyne2, Pascal Lieshout1
1Macquarie University, Sydney, Australia, 2Hospital for Sick Children, Canada, Canada, 3University of Toronto, Toronto, Sydney, Australia

The hippocampus during online language processing
Valerie Pu2, Blake Johnson1
1Macquarie University, Sydney, Australia

Frequency specific MEG functional connectivity predicts surgical outcome in patients with epilepsy
Velmurugan Jayabal1, Sanjib Sinha1, Mayippa Narayanan1, Arivazhagan A1, Malla Bhaskar Rao1, Parthasarathy Satishchandra1, Srikanth Nagarajan1
1National Institute of Mental Health and Neuro Sciences, Bangalore, India, 2UCSF, San Francisco, United States

Motor skill learning yields changes in fast transient MEG fluctuations
Catharina Zich1, Charlotte Stagg1
1University of Oxford, Oxford, United Kingdom
1917* Introducing automated ROI-based analysis for 3D-multivoxel magnetic resonance spectroscopy
Benjamin Spurný1, Philipp Mose2, René Seiger1, Eva Heckova2, Manfred Klöbfc, Thomas Vanické1, Marie Spies1, Wolfgang Bogner1, Rupert Lanzenberger1
1Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, 2Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna, Austria

1918 Measurement bias under functional spectroscopy conditions: A simulation study
Alexander Cravent, Maiken Birx1,2, Gerard Dwyer1, Lars Ersland1,2, Renate Gruner1,2, Kenneth Hugdahl1,2
1University of Bergen, Bergen, Norway, 2Haukeland University Hospital, Bergen, Norway

1919 Data Driven Analysis of single spectral 1H-MRS Data
Ravi Kalyanaraman1,2, Vince Calhoun1,2
1The Mind Research Network, Albuquerque, NM, 2The University of New Mexico, Albuquerque, NM

1920 Comparison of in vivo glutathione concentration using PRESS and MEGA-PRESS MR spectroscopy at 3T
Chao Suo1, Tamara Macpherson2, Andrew Pipingas3, Murat Yucel1, Con Stough1
1Monash University, Melbourne Australia, 2Swinburne University of Technology, Hawthorn, Australia, 3Swinburne University of Technologo, Melbourne, Victoria

1921 Metabolic changes during visual stimulation in drowning: a single voxel functional 1H MRS
Mariana Nucci1, Katerina Lukasova1, Pedro Ricardo Bronze2, Berno Foerster3, Edson Amaro4
1LIM 44, Faculdade de Medicina FMUSP, Universidade de Sao Paulo, Sao Paulo, Brazil, 2UFABC, Sao Bernardo do Campo, Brazil, 3Universidade de Sao Paulo, Sao Carlos, Brazil, 4PISA, Faculdade de Medicina FMUSP, Universidade de Sao Paulo, Sao Paulo, Brazil

1922 Neurochemical alteration of VMPFC in young adult with verbal abuse experiences
Doyoun Kim1, Joe hyun Yoo2, Young wool Park2, HyunWook Park2, Bumsook Jeong2
1Korea Advanced Institute of Science and Technology, Daejon, Korea, Republic of, 2Seoul National University Hospital, Seoul, Korea, Republic of, 3Computational Affective Neuroscience and Development Laboratory, Graduate School of Medical Science, KAIST, Daejeon, Korea, Republic of

1923 Longitudinal Study on MRS (GABA & Glx) and TMS Measures of Cortical Inhibition/Facilitation
Chung Ki Wong1, Qingfei Luo1, Vadim Zotev1, Raquel Phillips1, Kam Wai Chan2, Jerzy Bodurka1,2
1Laureate Institute for Brain Research, Tulsa, OK, 2University of Oklahoma-Tulsa, Tulsa, OK, 3Stephenson School of Biomedical Engineering, University of Oklahoma, Tulsa, OK

1924 Regional GABA levels assessed by magnetic resonance spectroscopic imaging predict motor behaviors
Adam Steel1, Georgina James2, Mark Chiew2, M. Albert Thomas2, Chris Baker4, Uzay Emir6, Charlotte Stoogg2
1National Institutes of Health, Bethesda, MD, 2University of Oxford, Oxford, United Kingdom, 3University of California Los Angeles, Los Angeles, CA, 4National Institute of Mental Health, Bethesda, MD, 5Purdue University, West Lafayette, IN

1925 Metabolic pattern during visual stimulation in adults and children: a single voxel functional 1H-MRS
Pedro Ricardo Bronze1, Katerina Lukasova2, Mariana Nucci1, Berno Foerster3, Edson Amaro4
1Universidade Federal de ABC, Sao Bernardo do Campo, Brazil, 2University of Sao Paulo, Sao Paulo, Brazil, 3University of Sao Paulo, Sao Carlos, Brazil, 4PISA, Faculdade de Medicina FMUSP, Universidade de Sao Paulo, Sao Paulo, Brazil
Cardioballistic peak timing variations in EEG-fMRI: influence of age, weight, and heart rate

1936 Dopamine D2 is Associated with Neural Responses during Working Memory in a Multi-modal Imaging, continued

1937 Frequency-dependent cortical plasticity via GABA modulation

1938 Capturing Information Flow in a Meta-modal Framework

1939 Multimodal neuroimaging data fusion in Schizophrenia by Kernel CCA

1940 EEG-derived and fMRI-derived functional connectomes exhibit linked dynamics

1941 Charting shared trajectories of cortical development and structural connectivity with joint NMF

1942 Segregation and integration in the default mode network: A population brain-imaging study

1943 Dopamine D2 is Associated with Neural Responses during Working Memory in a Load-dependent Manner

1944 Integrating drift-diffusion model and EEG-fMRI to identify the Obsessive-Compulsive Disorder circuit

1945 Comparison of deep neural network with human brain responses reveals spatiotemporal correspondence

1946 Meta-analysis fMRI data helps MEG current estimation

1947 EEG correlates of stress and its association with amygdala resting-state functional connectivity

1948 Robust Mapping of The EEG Alpha Rhythm Representation in BOLD fMRI Data

1949 A Combined 7T Stroop fMRI and MRS Study in First Episode Schizophrenia

1950 Pixipe: An Image Processing Pipeline For Web Browsers

1951 The short timescale neural contributions to resting state correlations

1952 Multimodal Neuroimaging Patterns Associated with Social Responsiveness Impairment Impaired in Autism
1968 Developmental Changes in Topological Asymmetry from Childhood to Adulthood – a fNIRS study
Lin Cal1, Qi Dong1, Haijing Niu1
1State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

1969 A novel NiRS method to monitor glymphatic water dynamics
Vesa Karhanen1, Teemu Myllylä1, Heta Helakari1, Niko Huotari1, Janne Kananen2, Lauri Raitamäki1, Aleksi Rasila1, Ville Roatikainen1, Viola Borchardt1, Vesa Kiviniemi1
1Oulu University Hospital, Oulu, Finland, 2University of Oulu, Oulu, Finland

1970 Selective Effects of Postural Control on Spatial versus Non-spatial Working Memory: An fNIRS Study
Ying Liu1, Yifan Chen1, Yanglan Yu1, Ruoyu Niu1
1Shanghai University of Sport, Shanghai, China

1971 Association between psychopathy and MFG functioning in adults with and without TBI: an fNIRS study
Yu Gao1, Ziyan Wu2, Xiaobo Li2
1Brooklyn College, CUNY, Brooklyn, NY, 2New Jersey Institute of Technology, Newark, NJ

1972 Existence of Initial dip in fNIRS Signal
Muhammad Ahmad Kamran1, Malik Mannani1, Myung Jeong1
1Pusan National University, Busan, Korea, Republic of Korea

1973 Multimodal Functional Connectivity using Magnetoencephalography and Near-Infrared Spectroscopy
Zachary Harper1, Roseric Azondekon1,2, Charles Welzig1
1Center for MRI Research, Peking University, Beijing, China, 2University of California, Berkeley, Oakland, CA

1974 Rest cerebral blood flow abnormalities in autism spectrum disorder
Ana Saltiwitch1
1INSERM U1000, Institut Imagine, Paris, France

1975 Dynamic characteristics of oxygen extraction fraction during the resting state
Yang Yang1, Yayan Yin1, Qihong Zou1, Yaoyu Zhang1, Jia-Hong Gao1
1Center for MRI Research, Peking University, Beijing, China

1976 Segregation of tau deposits across clinical stages provides the basis for Brain Atlases
Taicheng Huang1, Zonglei Zhen1, Kevin Weiner2, Xiayu Chen1, Jia Liu1
1Beijing Normal University, Beijing, China, 2University of California, Berkeley, Oakland, CA

Kelly Smart1, Sylvia Cox1, Aliaksandr Shalai1, Stephanie Scala1, Alexey Kostikov1, Michel Boivin2, Frank Vitaro3, Jean Ségui1,2, Chawki Benkelfat1, Marca Leyton1
1McGill University, Montreal, Canada, 2McGill Center for Studies in Aging, Montreal, Quebec, 3Dowson College, Montreal, Quebec, 4University of Montreal, Montreal, Quebec

1978 Frontal D2/3 Receptor Availability in Alcohol Use Disorder and High-Risk Drinking
Tobias Gleich1, Kristin Zacharias1, Gianna Spitta1, Osin Butler1, Ralph Buchert1, Jürgen Gallinat2
1Charité University Hospital Berlin, Berlin, Germany, 2Charité Universitätsmedizin Berlin, Berlin, Germany

1979 Modulation of Resting rCBF and Connectivity by Ovarian Steroids in Healthy Women and Those with PMDD
Shau-Ming Wei1, Erica Bailer1, Pedro Martinez2, Katherine Reding2, Philip Kohn3, Jonathan Kippenhan4, Michael Gregory4, David Rubinow5, Peter Schmidt6, Karen Berman4
1NIMH, NIH, Bethesda, MD, 2NIMH, NIH, Bethesda, United States, 3NIMH, Bethesda, MD, 4University of North Carolina Chapel Hill, Chapel Hill, United States

Polarized light imaging (PLI)

1980 Oblique views through unstained brain sections: a new module to 3D-Polarized Light Imaging
Daniel Schmidt1, Sascha Muenzing1, Schober Martin1, Nicole Schubert1, Philipp Schlömer1, Thomas Lippert2, Katrin Amunts1, Markus Axer1
1Institute of Neuroscience and Medicine (INM-1), Research Centre Jülich, Jülich, Germany, 2Jülich Supercomputing Centre, Research Centre Jülich, Jülich, Germany

INFORMATICS

1981 Average template for comparison of resting fMRI based on group synchronization of their time series
Haleh Akrami1, Anand Joshi1, Jian Li1, Richard Leahy1
1University of Southern California, Los Angeles, United States

1982 Inference of an extended short fiber bundle atlas using sulcus-based inter-subject alignment
Nico Labra Aval1, Jessica Leibenberg2, Denis Rivière2, Guillaume Auzias3, Clara Fischer2, Fabrice Poupon1, Pamela Guevara1, Cyril Poupon2, Jean-François Mangin4
1Neurospin, UNATI, CEA Saclay, Université Paris Sud, Paris Saclay, France, 2Gif-sur-Yvette, France, 3Institut de Neurosciences de la Timone, Aix-MarseilleUniversity, Marseille, France, 4National Institute for Microgravity Research, Jülich, Germany, 5National Institute for Neuroinformatics, Gif-sur-Yvette, France, 6University of Concepcion, Concepcion, Chile, 7University of California, Berkeley, United States

1983 Mapping human cognition at high spatial resolution with a task-rich fMRI dataset
Ana Luisa Pinho1, Gaël Varoquaux1, Bertrand Thirion1
1Centre National de la Recherche Scientifique, Inria, Saclay, France

1984 Generating individual brain atlases reflecting structural and functional characteristics
Keisuke Nakamura1, Satoshi Hibi1, Tomoyuki Hiroyasu1
1Doshisha University, Kyotanabe-shi, Kyoto, Japan

1985 Defining an Atlas of hMT+ Based on Functional Selectivity in over 500 Participants
Taicheng Huang1, Zonglei Zhen1, Kevin Weiner2, Xiayu Chen1, Jia Liu1
1Beijing Normal University, Beijing, China, 2University of California, Berkeley, Oakland, CA

To view full abstract text and ePosters, visit www.aievolution.com/hbm1801
2001 A standardised representation for non-parametric fMRI results
Camille Maumet1, Guillaume Flandin2, Martin Perez-Guevara3, Jean-Baptiste Poline4, Justin Rajendra4, Richard Reynolds5, Bertrand Thirion6, Thomas Nichols7
1University of Rennes, Inria, CNRS, INSERM, IRISA, Rennes, France, 2Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, London, United Kingdom, 3Citeo, Paris, France, 4McGill University and University of California at Berkeley, Montréal, Quebec, 5Scientific and Statistical Computing Core, NIMH, National Institutes of Health, Bethesda, DC, 6Scientific and Statistical Computing Core, National Institute of Mental Health, National Institutes, Bethesda, MD, 7Parietal Team, INRIA/Neurospin Saclay, Saclay, France, 8University of Oxford, Oxford, United Kingdom

2002 An Extensible Application Programming Interface for Querying Distributed Neuroscience Datasets
Gregory Kiar1, Tristan Glardon2, Jean Baptiste Poline3
1McGill University, Montreal, Quebec, 2Concordia University, Montreal, Canada, 3University of California at Berkeley, Berkeley, United States

2003 DeepQC: A RESTful API for Automatic QC Prediction
Elizabeth Levitis1,2, Andrew Doyle3, Armin Taheri2, Leigh MacIntyre2,3, Alan C Evans2,3
1McGill University, Montreal, Quebec, 2McGill Centre for Integrative Neuroscience, Montreal, Quebec, 3McGill Neurological Institute, Montreal, Quebec, 4McGill, Montreal, Quebec

2004 Collaborative curation of articles collections for meta-analyses in brain imaging: Brainspell-neo
Neil Soman1, Sharabesh Romesh1, Anisha Keshavara2, Roberto Toro2, Jean-Baptiste Poline3
1University of California Berkeley, Berkeley, CA, 2University of Washington, Seattle, WA, 3Institut Pasteur, Paris, France, 4McGill University, Montréal, Quebec

2005 The RfMRI Maps Project: Towards a Big Data of Brain Connectome across a Wide Variety of Individuals
Chao-Gan Yan1, Xiao Chen1, Bin Lu1, Hui-Xia Zou1, Xi-Nian Zuo1, Zang Yu-Feng2
1Institute of Psychology, Chinese Academy of Sciences, Beijing, China, 2Hangzhou Normal University, Hangzhou, China

2006 Share your Brain, Valencia region initiative
Maria de la Iglesio-Vaya1,2,3, Gonzalo Rojas1, Joaquin Angel Montiel1, Jose Manuel Saborit Torres1, John Jairo Saenz1, Marcelo Galvez1
1Unidad mixta FISABIO & Prince Felipe Research Cent, Valencia, Valencia, 2Regional Ministry of Health in Valencia, (CEIB-CSUSP), Valencia, Spain, 3Hospital Sagunto, Valencia, Spain, 4Clinica las Condes, Santiago, Chile, 5Regional Ministry of Health in Valencia, Valencia, Spain, 6Regional Ministry of Health in Valencia, (CEIB-CSUSP), Valencia, Spain, 7FISABIO, Valencia, Spain, 8Department of Radiology, Clinica Las Condes, Santiago de Chile, Chile

2007 Development of an Ontology for the INCF Neuroimaging Data Model (NIDM)
Karl Helmer1, David Keator1, Tibor Auer2, Saratjit Ghosh3, Camille Maumet4, Thomas Nichols5, Smriti Padhy6, Jean-Baptiste Poline7
1McGill Centre for Integrative Neuroscience, Montreal, Quebec, 2McGill for Centre for Integrative Neurosciences (MCIN), Montreal, Quebec, 3McGill University and University of California at Berkeley, Montréal, Quebec, 4McGill University and University of California at Berkeley, Montréal, Quebec, 5Massachusetts Institute of Technology Cambridge, MA, 6INRIA, Rennes, France, 7University of Oxford, Oxford, United Kingdom

2008 Deep learning to automatically identify the brain MRI contrast: implications for large databases
Ricardo Pizarro1, Haz-Edine Assemri1, Dante De Nigris2, Colm Elliott2, Samson Antel2, Douglas Arnold1, Amir Shmuel
1McGill University, Montréal, Canada, 2NeuroRx Research, Montréal, Canada

2009 LONI-QC, Web-based system for quality control of neuroimaging data: Part 1 - Design and workflow
Hosung Kim1, Andrei Irimia1, Samuel Hobel1, Mher PogosyanPetros1, Haoteng Tang1, Rita I. Esquivel Castelo Blanco1, Ben A. Duffy2, Lu Zhaoli3, Soo-Kei Liew4, Kristi Clark5, Meng Law6, Pratik Mukherjee7, John D. van Horn9, Arthur Toga10
1University of Southern California, Los Angeles, CA, 2University of Southern California, Los Angeles, CA, 3Laboratory of Neuro Imaging, USC Mark and Mary Stevens Neuroimaging and Informatics Institute,Unive, Los Angeles, United States, 4USC Mark and Mary Stevens Neuroimaging and Informatics Institute, University of Southern California, Los Angeles, United States, 5University of Southern California, Los Angeles, United States, 6USC Mark and Mary Stevens Neuroimaging and Informatics Institute, University of Southern California, CA, United States, 7Laboratory of Neuro Imaging (LONI), Stevens Neuroimaging and Informatics Institute of USC, Los Angeles, CA, 8UCSF, San Francisco, United States, 9USC Institute of Neuroimaging and Informatics, Los Angeles, CA, 10Keck School of Medicine of University of Southern California, Los Angeles, CA, Los Angeles, CA

2010 Stanford Adolescent Medicine of Depression and Anxiety Consortium:preliminary Resting-State results
Clemens Bauer1, Viviana Siless2, Jonathan Wang3, Mathias Goncalves1, Isabelle Frosh4, Nicholas Hubbard5, Genesis Vergara6, Kristina Conroy7, Flavia Vaz De Souza8, Isabelle Rosso9, Dina Hirschfeld-Becker10, Aude Henin11, Stefan Hofmann12, Diego Pizzagalli13, Satrijat Ghosh14, Randy Auerbach15, Anastasia Yendiki16, John Gabriel17, Susan Whittfield-Gabrieli18, Massachusetts Institute of Technology, Cambridge, MA, 2Athinoulia A. Martinos Center. Harvard Medical School, Boston, MA, 3McLean Hospital - Harvard Medical School, Belmont, United States, 4Boston University, Boston, United States, 5Massachusetts General Hospital, Boston, United States, 6USC Mark and Mary Stevens Neuroimaging and Informatics Institute, University of Southern California, CA, United States, 7Boston, University, Boston, MA, 8Kharkevich Institute for Information Transmission Problems, Moscow, Russian Federation, 9McGill University, Montreal, Quebec, 10McGill University and University of California at Berkeley, Montréal, Quebec, 11McGill University and University of California at Berkeley, Montréal, Quebec, 12Stanford University, Stanford, United States, 13University of California, Los Angeles, United States

2011 Pybids: Python tools for manipulation and analysis of BIDS datasets
Tai Yarkoni1, Alejandro de la Vega2, Elizabeth DuPre3, Oscar Esteban4, Yaroslav Halchenko5, Michael Hanke6, Valerie Hayot-Sasson7, Alexander Ivanov8, Gregory Kiar9, Christopher Markiewicz10, Quinten McNamara11, Dmitry Petrov12, Jean-Baptiste Poline13, Russell Poldrack14, Kyrzysztof Gorgolewski15, University of Texas at Austin, Austin, TX, 2University of Texas Austin, Austin, TX, 3Montreal Neurological Institute, McGill University, Montreal, Quebec, 4Stanford University, Stanford, CA, 5Dartmouth College, Hanover, NH, 6Otto-von-Guericke-University, Magdeburg, Germany, 7Concordia University, Montreal, Quebec, 8Kharkevich Institute for Information Transmission Problems, Moscow, Russian Federation, 9McGill University, Montreal, Quebec, 10University of Southern California, Los Angeles, CA, 11McGill University and University of California at Berkeley, Montréal, Quebec, 12Stanford University, Stanford, United States, 13McGill Centre for Integrative Neuroscience, Montreal, Quebec, 14McGill University, Montreal, Quebec, 15University of Arkansas for Medical Sciences, Little Rock, AR, 16Stony Brook University, Stony Brook, NY, 17University of Arkansas Medical Center, Little Rock, AR, 18Emory University, Atlanta, GA

2012 The MNI Open Science Ecosystem: Interoperability and APIs for sharing data and pipelines
Samir Das1, Shawn Brown2, Jean-Baptiste Poline3, Tristan Glardon4, Pierre Rioux5, Vladimir S. Fonov5, Carolina Mokwowski6, Alan C Evans7,8,9
1McGill Centre for Integrative Neuroscience, Montreal, Quebec, 2McGill University, Montréal, Quebec, 3McGill Centre for Integrative Neuroscience (MCIN), Montreal, Quebec, 4McGill University and University of California at Berkeley, Montréal, Quebec, 5McGill University, Montréal, Canada, 6McGill University, Montréal, QC, 7McGill Centre for Integrative Neuroscience, Montreal, Quebec, 8Montreal Neurological Institute, N/A, 9McGill University

2013 PRISM: Neuroinformatics Architecture to Support Research Reproducibility and Data Publication
Fred Prior1, Lawrence Tarbox2, Taisin Kurc3, Linda Larson-Prior4, Ashish Sharma5, Joel Saltz6, University of Arkansas for Medical Sciences, Little Rock, AR, 2Stony Brook University, Stony Brook, NY, 3University of Arkansas Medical Center, Little Rock, AR, 4Emory University, Atlanta, GA
**Workflows**

2034 AFNI preprocessing BIDS App with in browser quality control
  Dylan Nielsen1, Richard Reynolds3, Oscar Esteban1, Anisha Keshavan4, John Lee3, Krzysztof Gorgolewski3, Adam Thomas3, Robert Cox3
  Data Science and Sharing Team, National Institute of Mental Health, Bethesda, MD, 1Scientific and Statistical Computing Core, National Institute of Mental Health, Bethesda, MD, 2Stanford University, Stanford, CA, 3University of Washington, Seattle, WA, 4NIMH, Bethesda, MD

2035 FMriprep: Building a Robust Preprocessing Pipeline for fMRI
  Christopher Mastekiewicz2, Oscar Esteban1, Felong Ma2, James Kent1, Anibal Heinfeld2, Mathias Goncalves2, Russell Poldrack1, Krzysztof Gorgolewski3
  Stanford University, Stanford, CA, USA, 2Dartmouth College, Hanover, NH, USA, United States, 3University of Iowa, Iowa City, IA, United States, 4Independent Researcher, Rio De Janeiro, Brazil, 5MIT, Cambridge, MA, United States

2036 ROAST, a free, fully-automated pipeline for realistic TES simulation based on volumetric approach
  Yu Huang1, Abhishek Datta1, Marom Bikson1, Lucas Parra1
  The City College of New York, New York, NY, 2Soterix Medical Inc., New York, NY

2037 Cloowr: a micro-service model for scalable, reproducible, and accessible neuroinformatics
  Gregory Kiar1, Tristan Glatard2, Shawn Brown1, Alan C. Evans1
  McGill University, Montreal, Canada, 1Concordia University, Montreal, Canada

2038 BFP: BrainSuite fMRI Pipeline
  Anand Joshi1, Dakorai McCoy1, Minqi Chang1, Jian Li1, Soyoung Choi1, Richard Leahy1
  University of Southern California, Los Angeles, United States, 2UCLA, Los Angeles, United States

2039 In-lab pre-registration: time-locking of study plans and hypotheses without preliminary review
  Matan Mazor1, Noam Mazor1, Roy Mukame1
  University College London, London, United Kingdom, 2Tel Aviv University, Tel Aviv, Israel

2040 A Pipeline for the Analysis of 18F-FDG PET Data on the Cortical Surface and its Evaluation on ADNI
  Arnaud Marcoux2,3, Ninon Burgos2,3, Anne Bertrand2,3,4, Alexandre Routier5, Junhao Wen2, Jorge Samper-González2,4, Simona Bottani2, Stanley Durrleman2, Marie-Odile Habert6,7,8
  Inria Paris, Aramis project-team, Paris, France, 2Sorbonne Université, Inserm, CNRS, Institut du cerveau et la moelle (ICM), Paris, France, 3Sorbonne Université, Inserm, CNRS, Institut du cerveau et la moelle (ICM), AP-HP, Paris, France, 4AP-HP, Saint-Antoine Hospital, Department of Radiology, Paris, France, 5Sorbonne Université, Inserm, CNRS, Institut du cerveau et la moelle (ICM), FrontLab, Paris, France, 6AP-HP, Hôpital Pitié-Salpêtrière, Department of Nuclear Medicine, Paris, France, 7Laboratoire d’Imagerie Biomédicale, Sorbonne Universités, UPMC Univ Paris 06, Inserm U 1146, CNRS UMR 7371, Paris, France, 8AP-HP, Departments of Neuroradiology and Neurology, Pitié-Salpêtrière Hospital, Paris, France

2041 GRETNA 2.0.0 and BrainNet Viewer 1.6:1: Toolkits for Brain Network Analysis and Visualization
  Minqiu Xia1,2,3, Jinhui Wang1,4,5, Xindi Wang1,2,3, Xuhong Liao1,2,3, Jin Li4,2,3, Hao Wang4, Alan C. Evans5,6,7, Yang He8,9
  National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, 2Beijing Key Laboratory of Brain Imaging and Connectomics, Beijing Normal University, Beijing, China, 3IDG/McGovern Institute for Brain Research, Beijing Normal University, Beijing, China, 4Center for Cognition and Brain Disorders, Hangzhou Normal University, Hangzhou, China, 5Zhejiang Key Laboratory for Research in Assessment of Cognitive Impairments, Hangzhou, China, 6McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, Canada

2042 Neuroimaging Analysis (NiAnalysis): Python package for archive-centric analysis of neuroimaging data
  Thomas Close1, Phillip Ward2,3, Francesco Storazzini1, Zhaolin Chen4, Gary Egan2,3,4
  Monash Biomedical Imaging, Monash University, Melbourne, Victoria, Australia, 2Australian Research Council Centre of Excellence for Integrative Brain Function, Melbourne, Victoria, Australia, 3Monash Institute of Cognitive and Clinical Neurosciences, Monash University, Melbourne, Victoria, Australia, 4Department of Electrical and Computer Systems Engineering, Monash University, Melbourne, Victoria, Australia

2043 Using a Multi-Petaflop Supercomputer for Pushing Neuroimaging Analytics to the Next Level
  Jan Schreiber1, Felix Hoffstaedter2,3, Rajalekshmi Deepu1, Boris Orth1, Thomas Lippert1, Katrin Amunts2,3, Simon Eickhoff2,3, Svenja Caspers1,4,5
  1Research Centre Jülich, INM-1, Jülich, Germany, 2Research Centre Jülich, INM-7, Jülich, Germany, 3Institute for Systems Neuroscience, Medical Faculty, Heinrich-Heine-University Düsseldorf, Düsseldorf, Germany, 4Institute for Advanced Simulation, Jülich Supercomputing Centre, Research Centre Jülich, Jülich, Germany, 5Jülich Supercomputing Centre, Research Centre Jülich, Jülich, Germany, 6, 7JARA-BRAIN, Jülich-Aachen Research Alliance, Jülich, Germany

2044 FreeROI: A Comprehensive Toolbox for Region of Interest Delineation and Edit
  Xiuyu Chen1, Lijie Huang1, Zetian Yang1, Taiycheng Huang1, Jian Jiang1, Hoo Hao Bai1, Qinjin Li1, Zonglei Zhen1, Jia Liu2
  1State Key Laboratory of Cognitive Neuroscience and Learning & IDG/McGovern Institute for Brain Research, Faculty of Psychology, Beijing Normal University, Beijing, China, 2Beijing Key Laboratory of Applied Experimental Psychology, National Demonstration Center for Experimental Psychology Education, Faculty of Psychology, Beijing Normal University, Beijing, China

2045 Distributed deadline computing for real-time brain imaging analysis
  Daniel Suo1, J Hutchinson1, Megan deBettencourt1, Anne Menner1, Yida Wang1, Theodor Wilke1, Nicholas Turk-Browne1, Kenneth Norman1, Jonathan Cohen1, Kai Li1, Grant Wallace1, Mihai Capota1
  1Princeton University, Princeton, United States, 2Northeastern University, Boston, MA, 3University of Chicago, Chicago, IL, 4Princeton University, Princeton, NJ, 5Amazon, Santa Clara, CA, 6Intel Corporation, Portland, OR, 7Yale University, New Haven, CT

2046 YODA: YODA’s organigram on data analysis
  Michael Hanke1, Matteo Visconti di Oleggio Castello1, Kyle Meyer1, Benjamin Poldrack2, Yaroslav Halchenko3
  1Otto-von-Guericke-University, Magdeburg, Germany, 2Center for Behavioral Brain Sciences, Magdeburg, Germany, 3Dartmouth College, Hanover, United States, 4Dartmouth College, Hanover, NH, 5Otto-von-Guericke-Universität, Magdeburg, Germany

2047 Imaging and Behavioural Quality Control Modules in LORIS
  Leigh Macintyre1, Liza Levits1, Leo Thomas1, Samir Das1, Meagan Evans1, David MacFarlane1, Alan C Evans2
  1McGill, Montreal, Canada, 2McGill University, Montreal, Quebec, 3McGill Centre for Integrative Neuroscience, Montreal, Quebec, 4McGill University, Montreal, Quebec

2048 Clinica: an open source software platform for reproducible clinical neuroscience studies
  Alexandre Routier1, Jérémy Guillot1,2, Ninon Burgos3,4, Jorge Samper-González2,3, Junhao Wen2, Jorge Amunts1,2, Sabrina Fontanello1,3, Simona Bottani2,3, Thomas Jacquemont4,5, Arnaud Marcoux1, Pietro Gorii1,5, Pascal Lu1, Tristan Moreau1,3, Michael Bacci1,3, Stanley Durrleman2, Olivier Colliot3,8
  Inria Paris, Aramis project-team, Paris, France, 2Sorbonne Université, Inserm, CNRS, Institut du Cerveau et la Moelle épinière (ICM), FrontLab, Paris, France, 3Sorbonne Université, Inserm, CNRS, Institut du Cerveau et la Moelle épinière (ICM), Paris, France, 4AP-HP, Hôpital Pitié-Salpêtrière, Department of Nuclear Medicine, Paris, France, 5Laboratoire d’Imagerie Biomédicale, Sorbonne Universités, UPMC Univ Paris 06, Inserm U 1146, CNRS UMR 7371, Paris, France, 6AP-HP, Departments of Neuroradiology and Neurology, Pitié-Salpêtrière Hospital, Paris, France, 7Yale University, New Haven, CT, 8Sorbonne Université, Inserm, CNRS, Institut du Cerveau et la Moëlle épinière (ICM), FrontLab, Paris, France, 9Sorbonne Université, Inserm, CNRS, Institut du Cerveau et la Moëlle épinière (ICM), Paris, France, 10AP-HP, Departments of Neuroradiology and Neurology, Pitié-Salpêtrière Hospital, Paris, France

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**Tuesday, June 18, Wednesday, June 20 and Thursday, June 21**
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
2050 PIVT: A Platform Independent Visualization Tool
Armin Taheri1, Jonathan Lurie2, Rida Abou-Haidar2, Shawn Brown1, Samir Das2, Andrew Doyle2, Najme Khalli-Mahani3, Gregory Kiar1, Penelope Kostopoulos4, Claude Lepage1, Lindsay Lewis5, Carolina Makowski6, Christine Rogers5, Paule Toussaint7, Alan C. Evans8
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2051 Introducing a BIDS-compliant multi-echo fMRI preprocessing pipeline
Elizabeth DuPre1, Prantik Kundu1, Oscar Esteban2, R. Nathan Spreng3
1Montreal Neurological Institute, McGill University, Montreal, Quebec, 2Mount Sinai Hospital, New York City, NY, 3Stanford University, Stanford, CA

2052 Numerical error propagation in the HCP structural pre-processing pipelines
Ali Salari1, Loet Scaria1, Gregory Kiar1, Tristan Glatard1
1Concordia University, Montreal, Quebec, Canada, 2McGill University, Montreal, Quebec, Canada

2053 BrainSuite Workflow and Quality Control System
JASON WONG1, DAVID SHATTUCK1
1UCLA, Los Angeles, CA

2054 Sim: An Apache Spark-based pipeline framework for neuroimaging
Valerie Hayet-Sassoni1, Yongping Gao1, Loet Scaria1, Tristan Glatard1
1Concordia University, Montreal, Canada

2055 A Framework for Reproducible Evaluation of Geometric Inhomogeneity in Magnetic Resonance Images
Patrick Park1, Terry Peters1, Ali Khan1,2,3,4, Jonathan Lau1,4
1Western University, London, Canada, 2Department of Medical Biophysics, Schulich School of Medicine and Dentistry, London, Canada, 3Brain and Mind Institute, London, Canada, 4Co-senior authors: contributed equally to the supervision of this study, London, Canada

2056 EECoG-Comp: An Open Source Platform for Concurrent EEG/ECoG Comparisons
QING WANG1, PEDRO VALDES-HERNANDEZ2, PEDRO VALDES-SASA3
1The Clinical Hospital of Chengdu Brain Science Institute/Cuban Neuroscience Center, Chengdu, China, 2Florida, Miami, FL

2057 A tailored functional MRI derived atlas: a potential tool for mapping brains with large lesions
Ahmed Radwan1, Jeroen Blommaert2, Lisa Maileux1, Cristina Simon-Martinez1, Katrijn Klingels1, Els Orbius1, Hilde Feys2, Stefan Sunaert1
1KU Leuven, Department of Imaging and Pathology, Leuven, Belgium, 2KU Leuven, Department of Gynecological Oncology, Leuven, Belgium, 3KU Leuven, Department of Rehabilitation Sciences, Leuven, Belgium, 4KU Leuven, Department of Development and Regeneration, Leuven, Belgium

2058 Application for Rapid Prototyping of GPU-accelerated Parallel Imaging Algorithms
Jean-Gerd Tenbergen1, Patrick Schiffner1, Julia Kramer2
1University of Münster, Münster, Germany, 2University Hospital Münster, Münster, Germany

2059 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
YEUN KIM1, JASON WONG1, DAVID SHATTUCK1
1UCLA, Los Angeles, CA

2060 Preprocessing of ultra-high resolution multi-parametric maps
1Department of Neurology and Psychiatry, University Hospital Jena, Jena, Germany, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 3Netherlands Institute for Neuroscience, Amsterdam, Sfinoza Centre for Neuroimaging, Amsterdam, Netherlands, 4Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 5University Hospital Jena, Jena, Germany

LANGUAGE

2061 Functional Networks in Second Language word Learning: Impact of Learning Phase and Language Distance
Ledan Ghazi Saidi1, Ana Ines Ansaldo2
1University of Nebraska at Kearney, Kearney, NE, 2University of Montreal, Montreal, Canada

2062 Neural underpinning of the Japanese case particle processing on non-native speakers
Chise Kasari1, Motofumi Sumiyar1, Takahiko Koke1, Takaoki Yoshimoto1, Aoki Nooya2, Norhiro Sadoato2
1Gifu University, Gifu, Japan, 2National Institute for Physiological Sciences, Okazaki, Japan, 3Department of System Neuroscience, National Institute for Physiological Sciences, Okazaki, Japan, 4National Institute for Physiological Sciences, Okazaki, Japan

2063 The Effects of L2 Fast-rate Listening Training Combined with Transcript Reading and Brain Activity
Mayumi Kajiura1, Hyojeon Jeong2, Natasha Kawata1, Shaojun Yu1, Toru Kinoshita1, Ryuta Kawashima1, Motaoki Sugiuara1
1Graduate School of International Cultural Studies, Tohoku University, Sendai, Miyagi, Japan, 2IDAC, Tohoku University, Sendai, Miyagi, 3Graduate School of Humanities, Nagoya University, Nagoya, Aichi

2064 Gray matter structural covariance changes during language comprehension development
Ting Qi1, Gessa Schaadt1, Michael Skeide2, Indra Kraff1, Jens Brauer1, Rodjo Vissiennon1, Riccardo Cafiero1, Angela Friederici1
1Department of Neuropsychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

2065 Differences in neural activity between average readers and dyslexics during reading tasks
Noor Al Dahhan1, John Kirby1, Donald Brien1, Rina Gupta2, Allyson Harrison1, Douglas Munoz1
1Queen’s University, Kingston, Ontario

2066 Individual Differences in Cognitive Abilities Correlate with Brain White Matter in Young Children
Clara Eckardt1, Clara Künn1, Alfred Anwander1, Jens Brauer1, Angela Friederici1
1Department of Neuropsychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

2067 Music training facilitated Chinese speakers’ brain response to English letter-sound integration
Yeun Kim1, JASON WONG1, DAVID SHATTUCK1
1UCLA, Los Angeles, CA

2068 Differences in neural activity between average readers and dyslexics during reading tasks
Noor Al Dahhan1, John Kirby1, Donald Brien1, Rina Gupta2, Allyson Harrison1, Douglas Munoz1
1Queen’s University, Kingston, Ontario

2069 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
YEUN KIM1, JASON WONG1, DAVID SHATTUCK1
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2070 Preprocessing of ultra-high resolution multi-parametric maps
1Department of Neurology and Psychiatry, University Hospital Jena, Jena, Germany, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 3Netherlands Institute for Neuroscience, Amsterdam, Sfinoza Centre for Neuroimaging, Amsterdam, Netherlands, 4Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 5University Hospital Jena, Jena, Germany

2071 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
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2072 Preprocessing of ultra-high resolution multi-parametric maps
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2073 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
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2074 Preprocessing of ultra-high resolution multi-parametric maps
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2075 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
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2076 Preprocessing of ultra-high resolution multi-parametric maps
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2077 BrainSuite BIDS-App: a Containerized Version of the BrainSuite Processing Pipelines
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2078 Preprocessing of ultra-high resolution multi-parametric maps
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2080 Preprocessing of ultra-high resolution multi-parametric maps
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### Language Acquisition, continued

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<th>Paper Title</th>
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<td><strong>2068</strong> The journey is the reward: Neuronal developmental changes of language processing</td>
<td>Sonja Ross, Manfred Gugler</td>
<td>1Medical University Innsbruck, Innsbruck, Austria, 2Tirol Kliniken GmbH, Innsbruck, Austria</td>
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<td><strong>2069</strong> No Evidence for Systematic Gray Matter Volume Differences in Dyslexia and Dyscalculia</td>
<td>David Moreau, Kristina Wiebels, Anna Wilson, Karen Walde</td>
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<td><strong>2070</strong> Word Length Processing in Left Lateraloccipital through Region-to-Region Connectivity: an MEG Study</td>
<td>Mariya Toneva, Tom Mitchell</td>
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<td><strong>2071</strong> Reduced brain activity and functional connectivity for intelligible speech in older adults</td>
<td>Naoxi Fei, Jianguo Ge, Yi Wang, Jia-Hong Gao</td>
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<td>Guoyuan Yang, Jianqiao Ge, Jia-Hong Gao</td>
<td>1Center for MRI Research, Peking University, Beijing, China, 2Center for MRI Research, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China</td>
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<td>Ali Moharramipour, Parham Mostame, Gholam-Ali Hossein-Zadeh, James Weless, Abbas Babajani-feremi</td>
<td>1University of Tehran, Tehran, Iran, Islamic Republic of, 2University of Tennessee Health Science Center, Memphis, TN</td>
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<td><strong>2074</strong> Brain Networks Underlying Concept Retrieval Comprise Interacting Supramodal and Sensory-Motor Areas</td>
<td>Seyyedeh-Rezvan Farahibozorg, Olaf Hauk</td>
<td>1University of Cambridge, MRC Cognition and Brain Sciences Unit, Cambridge, UK</td>
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<td><strong>2075</strong> Revisiting the association of hemispheric lateralization of language with handedness</td>
<td>Xinyu Liang, Xiaoshua Wang, Yanchnao Bi, Gaolang Gong</td>
<td>1State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, 2IDG/McGovern Institute for Brain Research, Beijing Normal University, Beijing, China</td>
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<td>Jiseon Baik, Haeil Park</td>
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<td><strong>2077</strong> Brain Oscillations Involved in Perception and Action are Modulated During Semantic Word Processing</td>
<td>Seyyedeh-Rezvan Farahibozorg, Olaf Hauk</td>
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<td>1Carnegie Mellon University, Pittsburgh, PA, 2Indian Institute of Science, Bangalore, India</td>
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<td>1The Florey Institute of Neuroscience and Mental Health, Heidelberg, VIC, 2The Florey Institute of Neuroscience and Mental Health, Melbourne, VIC, 3Florey Institute of Neuroscience and Mental Health, Heidelberg, Victoria, 4The Florey Institute of Neuroscience and Mental Health, Austin Campus &amp; The University of Melbourne, Heidelberg, VIC, Australia</td>
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<td>Azalee Reyes Aguilar, Giovanna L. Licea Haquet, Brenda I. Arce Lopez, Magdalena Giordano</td>
<td>1Institute of Neurobiology, UNAM, Queretaro, Juriquilla, Oax., 2Facultad de Psicologia, UNAM, Mexico City, Mexico</td>
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<td>Zhenzhong Gan, Jian Huang, Hsuan-Chih Chen, Suiping Wang</td>
<td>1Center for the Study of Applied Psychology and School of Psychology, South China Normal University, Guangzhou, China, 2Department of Psychology, The Chinese University of Hong Kong, Hong Kong, China, 3Guangdong Provincial Key Laboratory of Mental Health and Cognitive Science, South China Normal University, Guangzhou, China</td>
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<td><strong>2084</strong> Brain functional network topology influences response to intensive comprehensive aphasia treatment</td>
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<td>1Zaozhuang University, Zaozhuang, China</td>
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2086* Objective language mapping with TMS for functional parcellation of Broca's region
Katrin Sakreid1, Johanna Blume-Schnitzler1, Stefan Heim2,3, Klaus Willmes4, Hans Clusmann5, Georg Neuloh5
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2087 East Asian and non East Asian linguistic groups: gray matter volume and language pathway comparison
Hu Wei1, Hong Gao1, Hai Li1, Qi Cheng1, Tianzi Jiang2
1School of Life Science and Technology, University of Electronic Science and Technology of China, ChengDu, China, 2Center for MRI Research, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China

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2089 Using ERPs to dissociate lexical frequency and age-of-acquisition in Chinese character naming
Yen Na Lau1, Sam-Po Law2
1Education University of Hong Kong, Hong Kong, 2University of Hong Kong, Hong Kong

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1School of Psychology, Shaanxi Normal University, Xi'an, China, 2Département d'Etudes Cognitives, Ecole Normale Supérieure, PSL Research University, Paris, France, 3Department of Psychiatry and Behavioral Neuroscience, University of Cincinnati, Cincinnati, United States

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1Chinese University of Hong Kong, Hong Kong, Hong Kong, 2University of Zurich, Zurich, Switzerland, 3Chinese Academy of Sciences, Beijing, China

2092 Dissociation of spoken and written language coding neurons in the Visual Word Form Area
Chatriya Pattamadilok1, Samuel Planton1, Mireille Bonnard2
1Aix-Marseille University, Aix-en-Provence, France, 2Aix-Marseille University, Marseille, France

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David Jangraw1, Emily Finn2, Javier Gonzalez-Castillo1, Daniel Handwerker1, Margee Ghane3, Monica Rosenberg5, Puja Panwar1, Peter Bondetelli1
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2095 Cerebellar engagement during fluent reading: Implications for readers with dyslexia
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2096 Functional Connectivity-Based Predictor of Reading Recall Generalizes to Multi-Task Data

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1University of British Columbia, Vancouver, Canada, 2Behavioural and Cognitive Neuroscience Institute (BCNI), Simon Fraser University, Vancouver, Canada, 3BC School District 41, Burnaby, Canada, 4Simon Fraser University, Vancouver, Canada, 5Behavioural and Cognitive Neuroscience Institute (BCNI), Simon Fraser University, Burnaby, Canada

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1Nanyang Technological University, Singapore, Singapore

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1Pennsylvania State University, University Park, PA

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1Vanderbilt University, Nashville, TN

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William Menc1, Shuai Wang2, Stephen Frost3, Kenneth Pugh4
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Kelly Michaels1, Andrei Medvedev1, Peter Turkeltaub2,3
1Georgetown University Medical Center, Washington, DC, 2Georgetown University, Washington, DC, 3MedStar National Rehabilitation Network, Washington, DC

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1Université Laval, Quebec City, Canada, 2University College London, London, United Kingdom, 3Florida International University, Miami, FL, USA, 4University of Sherbrooke, Sherbrooke, Canada

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Sarah Steber1,2, Sonja Rossil
1Medical University Innsbruck, Innsbruck, Austria, 2Leopold-Franzens-University Innsbruck, Innsbruck, Austria

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1The Hong Kong Polytechnic University, Hong Kong, Hong Kong

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Baishen Liang1, Yi Du1
1CAS Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China

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Bella Diekmann1,2,3,4, Olga Glanz1,2,3,4, Pia Hagen-Wiest1,2,3,4, Peter Auer1,2,3,4, Andreas Schulze-Bonhage1,2,3,4, Tonio Ball1,2,3,4
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3Institute for Infocomm Research Agency for Science, Technology and Research, Singapore, Singapore.

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1Kristianstad University, Kristianstad, Sweden, 2Inlandet Hospital Trust, Hamar, Norway.

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1Wayne State University, Detroit, MI, 2Department of Psychiatric Services, University of Michigan, Ann Arbor, MI.

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1Donders Institute for Brain, Cognition and Behavior, Nijmegen, Netherlands, 2Erwin L. Hahn Institute for Magnetic Resonance Imaging, Essen, Germany.

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2Graduate School of Frontier Biosciences, Osaka University, Suita, Japan.

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1The University of Manchester, Manchester, United Kingdom.

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1Northwestern Polytechnical University, Xi’an, China, 2QIMR Berghofer Medical Research Institute, Brisbane, Australia.

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Alexander Prehn-Kristensen1, Cornelia Vöckel1, Anna Pirch1, Lioba Baving1, Christian Wiesner1
1Centre for Integrative Psychiatry, University Hospital Schleswig-Holstein, Kiel, Germany.

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Anna Khazenetz1, Shao Fang Wang1, Kevin Madore1, Stephonie Zhang2, Alex Gonzalez2, Stephanie Sorensen1, Monica Thieu2, Andrew Wagner3
1Psychology Dept, Stanford University, Stanford, CA, 2Symbolic Systems Program, Stanford University, Stanford, CA, 3Psychology Dept, Stanford University, Stanford, CA.

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1University Hospital Zurich, Zurich, Switzerland, 2National Research University, Centre for Cognition and Decision Making, Higher School Of Economics, Moscow, Russian Federation, 3Swiss Epilepsy Center, Zurich, Switzerland.

2136 Comparing the neural correlates of visual encoding and free recall with 7T fMRI
Wilma Boinbridge1, Elizabeth Hall1, Chris Baker1
1National Institute of Mental Health, Bethesda, MD.

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Hyo Woon Yoon1
1Daegu Cyber University, Gyeongsan, Korea, Republic of Korea.
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Division of Neuroscience and Experimental Psychology, University of Manchester, Manchester, United Kingdom, University of Manchester, Manchester, United Kingdom, Institute of Psychiatry, King’s College London, London, United Kingdom

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Lucie Bréchet, Denis Brunet, Gwenaël Birot, Rolf Gruetter, Christoph Michel, Jodo Jorge
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Oliver Gray, Daniela Montaldi
Division of Neuroscience and Experimental Psychology, University of Manchester, Manchester, United Kingdom

Decoding spontaneous memory reprocessing during sleep in humans
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Functional and structural changes over learning indicate rapid build-up of neocortical memory
Svenja Brodt, Jonas Beck, Michael Erb, Klaus Schefll, Steffen Gais, Monika Schonauer
University of Tubingen, Tubingen, Germany, University of Fribourg, Fribourg, Switzerland, University of Tuebingen, Tuebingen, Germany, Max Planck Institute for Biological Cybernetics, Tuebingen, Germany

Agrin Regulates Target-Selective Peripheral Nerve Regeneration by Nano-5-FU Ethosome
Zhujun Feng, Heng Xu, Jun Chen, Feng Li, Yan Wo, Airong Ma
Department of Anatomy and Physiology, School of Medicine, Shanghai Jiao Tong University, Shanghai, China, Department of Plastic and Reconstructive, Shanghai Ninth People’s Hospital, Shanghai, China, Department of Orthopaedic Sports Medicine, Huashan Hospital, Fudan University, Shanghai, China

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Pang Wenbin, Zhichao Xia, Zhang Linjun, Hua Shu
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Increased Insular Function Connectivity in Expert Dancers and Musicians: A fMRI Study
Gujing Li, Hui He, Cheng Luo, Dezhang Yao
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Pyramidal and extrapyramidal tracts are complementary mediators of motor compensation
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Motor training reduces surround inhibition in the motor cortex
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Intrinsic functional connectivity predicts corticospinal excitability and motor function
Jasmine Herszage, Eran Dayan, Haggai Sharon, Nitza Censor
Tel Aviv University, Tel Aviv, Israel, University of North Carolina at Chapel Hill, Chapel Hill, NC, Sourasky Medical Center, Tel Aviv, Israel

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Skill Learning

Predictor of programming language learning success: The development of the inferior frontal cortex
Chihiro Hosoda, Masashi Hamada, Hiroaki Maeshia, Kazuo Okanoya
University of Tokyo, Tokyo, Japan

Ongoing dynamics of functional network changes during 6-week working memory training
Karolina Finc, Kamil Bonna, Miriam Kosik, Wlodzislaw Duch, Simone Kuhn
Centre for Modern Interdisciplinary Technologies, Nicolaus Copernicus University, Torun, Poland, Institute of Physics, Faculty of Physics, Astronomy and Informatics, Nicolaus Copernicus University, Torun, Poland, Max Planck Institute for Human Development, Berlin, Germany

Pyramidal and extrapyramidal tracts are complementary mediators of motor compensation
Leon Ernst, Theodor Rüber, Jennifer Goubatz, Conrad Prillwitz, Bastian David, Guido Lüchters, Johannes Schramm, Bernd Weber, Elke Hattingen, Gottfried Schlaug, Christian Elger
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**LEARNING AND MEMORY**

**Skill Learning, continued**

2154 Longitudinal changes of motor sequence representations alongside training

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2155 Structural Covariance of Cerebral Gray Matter Regions in Long-term Dance and Piano Training

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2156 Longitudinal changes of motor sequence representations alongside training

**Emily Hinson**, **James Kolasinski**, **Amir Divanbeighi Zand**, **Assen Risov**, **Uzay Emir**

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2157 Longitudinal GABA decrease during motor learning: a 7T MRS study

**Yu-Hsien Chiu**, **Wei-Chi Li**, **Jen-Chuen Hsieh**, **Li-Fen Chen**

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2159 Understanding Verbal Working Memory Deficits in Children with Dyslexia

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**Yu-Hsien Chiu**, **Jen-Chuen Hsieh**, **Wei-Chi Li**, **Jen-Chuen Hsieh**, **Li-Fen Chen**

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2160 Working Memory

**FMRI decoding of working memory representations of individual and grouped tactile stimuli**

**Lisa Velenosi**, **Yuan Hao Wu**, **Tim Torsten Schmidt**, **Felix Blankenburg**

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2157 Longitudinal changes of motor sequence representations alongside training

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2160 Functional magnetic resonance Investigation of working memory

**Felipe Kopel**, **Hernán Cervantes**, **Katia de Oliveira**, **Cesar Namura**, **Claudio De Castro**, **C. C.**, **Said Rabbani**

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2161 Information Transmission between HPC and PFC is Required for Working Memory

**Mi Xie**, **Taoqiao Liu**, **Wenwen Bai**, **Xin Tian**

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2162 The long-term Effects of Working Memory Training

**Wan Zhao**, **Jun Li**

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2163 Fast and slow changes of functional network topology during 6-week learning of working memory task

**Kamil Bonn**, **Karolina Finc**, **Miriam Kosik**, **Wlodzislaw Duch**, **Simone Kühn**

*1Institute of Physics, Faculty of Physics, Astronomy and Informatics, Nicolaus Copernicus University, Toruń, Poland, 2Nicolaus Copernicus University, Toruń, Poland, 3Max Planck Institute for Human Development, Berlin, Germany*

2164 Working Memory assessment, relationship with Functional Connectivity in Cocaine and Crack users


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2165 The tactospatial sketchpad

**Tim Torsten Schmidt**, **Felix Blankenburg**

*Freie Universität Berlin, Berlin, West Germany*

**LIFESPAN DEVELOPMENT**

**Tuesday, June 18, Wednesday, June 20 and Thursday, June 21**

**Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45**

2166 Fast and slow changes of functional network topology during 6-week learning of working memory task

**Kamil Bonn**, **Karolina Finc**, **Miriam Kosik**, **Wlodzislaw Duch**, **Simone Kühn**

*1Institute of Physics, Faculty of Physics, Astronomy and Informatics, Nicolaus Copernicus University, Toruń, Poland, 2Nicolaus Copernicus University, Toruń, Poland, 3Max Planck Institute for Human Development, Berlin, Germany*

2164 Working Memory assessment, relationship with Functional Connectivity in Cocaine and Crack users


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2165 The tactospatial sketchpad

**Tim Torsten Schmidt**, **Felix Blankenburg**

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2166 Training Reverses Age-Associated Functional Connectivity Changes

**Rui Li**, **Juan Li**

*1CAS Key Laboratory of Mental Health, Institute of Psychology, Beijing, China*

2167 Brain Exhibits Distinct Connectivity Efficiency between Resting-state and Task Performance

**Junhua Li**, **Anastasios Bezerianos**, **SH Annabel Chen**, **Toshiharu Nakai**

*1National University of Singapore, Singapore, Singapore, Singapore, 2Nanyang Technological University, Singapore, Singapore, 3National Center for Geniatrics & Gerontology, Ohbu, Japan*

2168 Functional Coherence of Striatal Resting-State Networks is Modulated by Striatal Iron Concentration

**Bárbara Avelar-Pereira**, **Aliresa Salami**, **Benjamin Garzón**, **Rouslan Sitnikov**, **Grégoria Kalpouzos**

*1Aging Research Center, Karolinska Institutet and Stockholm University, Stockholm, Sweden, 2Umeå Center for Functional Brain Imaging, Umeå University, Umeå, Sweden, 3MRI Research Center, Karolinska University Hospital, Stockholm, Sweden*

2169 Tracking the Dynamic Functional Connectivity Structure of Human Brain across the Adult Lifespan

**Yunman Xie**, **Quinlin Chen**, **Mengze Li**, **Weikang Gong**, **Jiang Qiu**

*1Southwest University, Chongqing, China, 2Key Laboratory of Computational Biology, CAS-MPG Partner Institute for Computational Biology, Shanghai, China*

2170 Pre-aging of the olfactory bulb in major depression with high comorbidity

**Fabian Rottstätter**, **Thomas Hummel**, **Iona Croy**

*1Universitätsklinikum Carl Gustav Carus Dresden, Dresden, Germany, 2Universitätsklinikum Carl Gustav Carus, Dresden, Germany*

2171 Age-related Alterations in Resting-state Functional Connectivity & Verbal Episodic Memory

**Hsueh-Wen Shih**, **Yu-Ling Chang**

*1Institute of Brain Science, National Yang-Ming University, Taipei, Taiwan, 2Center for Advanced Imaging Innovation and Research (CAI2R), NYU School of Medicine, New York, United States, 3National Center of Genetics & Gerontology, Ohbu, Japan*

To view full abstract text and ePosters, visit www.ai.evolution.com/hbm1801
Four-week Intranasal Oxytocin vs Placebo Administration Modulation of Amygdala and Accumbens Volume
Desiree Lussier1, Rita Hayes1, Marilyn Horta1, Tian Lin1, Ian Frazier1, Devon Weir1, Eliany Perez1, Håkan Fischer2, Kristoffer Månsson2, David Feifei3, Natalie Ehrman4
1University of Florida, Gainesville, FL, 2Stockholm University, Stockholm, Sweden, 3Stockholm University, Stockholm, Sweden, 4University of California, San Diego Health, San Diego, United States

Preliminary analyses on genetic variants associated with predicted brain age in ADNI
Brandonley Rieder1, Paul Thompson1, Alzheimer’s Disease Neuroimaging Initiative (ADNI)+ Imaging Genetics Center, Keck School of Medicine of University of Southern California, Los Angeles, CA, +Alzheimer’s Disease Neuroimaging Initiative, Washington, United States

Age-related differences in executive function demonstrate moderated mediation by white matter health
David Hoogij1, Chris Foster1, Linh Lazarus1, Karen Rodrigue1, Kristen Kennedy1
1The University of Texas at Dallas, Dallas, TX

Minimal age differences in neural activity despite more pro-social decision behavior in older adults
Che-Yu Chou1, Joshua Oon Soo Goh2
1National Taiwan University, Taipei, 2Graduate Institute of Brain and Mind Sciences, College of Medicine, National Taiwan University, Taipei, Taiwan

Brain Activation Characteristics during Non-Switch and Switch Tasks in Subjective Cognitive Decline
Peter Sheng Yao Hu1, Pei-Fang Tang1,2,4, Meng-Tien Wu2,2, Nai-Chi Chen2,2, Ming-Jang Chiu2,2,4,5,6, Joshua Oon Soo Goh1,1, Wen-Yih Tseng1,2,3,4,5, Yu-Ling Chang3,2, Chia-Lin Lee1,1,2,4,5,6,7
1Institute for Biomedical Health Sciences, National Health Research Institutes, Taipei, Taiwan, 2School and Graduate Institute of Medical Therapy, College of Medicine, National Taiwan University, Taipei, Taiwan, 3Graduate Institute of Brain and Mind Sciences, College of Medicine, National Taiwan University, Taipei, Taiwan, 4Neurobiology and Cognitive Science Center, National Taiwan University, Taipei, Taiwan, 5Department of Long-Term Care, Yanghee Catholic Tien Hospital, Taipei, Taiwan, 6Department of Neurology, National Taiwan University Hospital, Taipei, Taiwan, 7Graduate Institute of Biomedical Electronic and Bioinformatics, National Taiwan University, Taipei, Taiwan, 8Department of Psychology, College of Science, National Taiwan University, Taipei, Taiwan, 9Institute of Medical Device and Imaging, National Taiwan University College of Medicine, Taipei, Taiwan

White Matter Integrity in Older Adult Fallers
Victoria Poole1,2, Thomas Wooten2,3, Ikechukwu Iloputaife1,2, Lewis Lipsitz1
1Hebrew SeniorLife Institute for Aging Research, Roslindale, MA, 2Harvard Medical School, Boston, MA, 3VA Boston Healthcare System, Boston, MA, 4Boston University School of Medicine, Boston, MA

Lifespan Development Other

When your brain looks older than expected: Integrated lifestyle risk and the BrainAGE score
Nora Bittner1,2, Christiane Jockwitz1,2,4, Katja Franke1, Christian Gaser1, Susanne Moebus1, Ute Bayer3, Katrin Amunts1,2, Svenja Caspers1,2,4,5
1Institute of Neuroscience and Medicine (INM-4), Research Centre Juelich, Juelich, Germany, 2O. Vogt Institute for Brain Research, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany, 3Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University, Aachen, Germany, 4JARA-BRAIN, Juelich-Aachen Research Alliance, Juelich, Germany, 5University Hospital Jena, Jena, Germany, 6Institute of Medical Informatics, Biometry and Epidemiology, University of Duisburg-Essen, Essen, Germany, 7Institute for Experimental Psychology, Heinrich-Heine-University Duesseldorf, Duesseldorf, Germany

Flexible analysis of white matter fibre density and morphology in the preterm brain
Diliana Pech-Peiró1,4, Donald Tourrier1, Maximilian Plichta1, Daan Christiaensen1,2, Dafnis Batolle1, Daniel Alexander1, Mary Butherford1, Joseph Hajnal1, David Edwards1, Hui Zhang1, Serena Corall1,2
1Centre for the Developing Brain, King’s College London, London, United Kingdom, 2Centre for Medical Image Computing, University College London, London, United Kingdom

Prematurity Birth is Associated with Structural Brain Network Abnormalities Across Development
Antonia Koopzurk1, Rula Nassar1, Cedric Xic1, Aristidis Sotiras1, Manuela Pehlivanova1, Tyler Moore1, Angel Garcia de La Garzo1, David Roall1, Adon Rosen1, Scott Lorch1, Kosha Rupareli1, Russell Shinohara1, Chrisostos Davatzikos1, Ruben Gur1, Raquel Gur1, Theodore Satterthwaite1
1University of Pennsylvania, Philadelphia, PA

Universality in human cortical folding across lobes
Yuijiang Wang1, Joe Necus1, Kathryn Garside1, Luis Peraza-Rodriguez1, Bruno Moto1
1Newcastle University, Newcastle upon Tyne, United Kingdom, 2Newcastle University, Newcastle upon Tyne, Tyne and Wear, 3UFRRJ, Rio de Janeiro, Brazil

Perinatal stress and human hippocampal volume: Findings from typically developing young adults
Klára Maceková1,2, Radek Mareček1,2, Petra Bencurová1, Jana Klamová1, Ladislav Dusek1,2, Milan Brandl2,3,4
1Central European Institute of Technology, Masaryk University, Brno, Czech Republic, 2RECETOX, Faculty of Science, Masaryk University, Brno, Czech Republic, 3Institute of Biostatistics and Analyses, Masaryk University, Brno, Czech Republic

Dynamics of white matter tract covariance across lifespan assessed with diffusion spectrum imaging
Yi-Xi Peng1, Ying-Chin Hsu2, Chang-Le Chen3, Wen-Yih Isaac Tseng1,2,4
1Institute of Medical Device and Imaging, National Taiwan University College of Medicine, Taipei, Taiwan, 2Institute of Medical Engineering, National Taiwan University College of Medicine, Taipei, Taiwan, 3Department of Medical Imaging, National Taiwan University Hospital, Taipei, Taiwan, 4Molecular Imaging Center, National Taiwan University College of Medicine, Taipei, Taiwan
2207 Children's reality judgments of real and fantastical events in videos: An fNIRS study
Peng Zhang1, Bingjie Zhao1, Hui Li2, Xuejun Bai3
1Academy of Psychology and Behavior, Tianjin Normal University, Tianjin, China; 2Department of Psychology, National University of Singapore, Singapore

2208 The MRI-Share database: brain MRI in a cohort of 2,000 students
Bernard Mazoyer1, Fabrice Crivello2, Alexandre Laurent3, Ami Tsuchida4, Laurent Petit5, Marc Joliot6, Gregory Beaudet7, Antonietta Peppe8, Naka Begedu9, Marie-Fataye Gueye10, Pierre-Yves Herve11, Christophe Delandole12, Laure Zago13, Nathalie Tzourio-Mazoyer14, Emmanuel Melet15, Stephane Tzourio16
1Institut des Maladies Neurodégénératives, University of Bordeaux, Bordeaux, France; 2Plateforme d’Imagerie Biomédicale, Bordeaux University, Bordeaux, France; 3Bordeaux Population Health, University of Bordeaux, Bordeaux, France

2209 The effects of early childhood institutional deprivation on adult brain structure
Nuria Mackie1, Dennis Galm2, Sagar Sarkar3, Graeme Fairchild4, Mitu Mehta5, Edmund Sonugo-Barke6
1King’s College London, Department of Neuroimaging, London, United Kingdom; 2King’s College London, Department of Child and Adolescent Psychiatry, London, United Kingdom; 3University of Bath, Department of Psychology, Bath, United Kingdom

2210 Functional brain reorganisation in human development: A spatio-temporal connectomics perspective
Jakub Vohryzek1, Alessandra Griffa2, Emeline Muller2, Cecilia Friedrichs-Maeder3, Carrado Sandini4, Marie Schaefer5, Stephan Eliez6, Patrik Hagmann7
1University of Lousanne, Lausanne, Switzerland; 2UMC Utrecht, Utrecht, Netherlands; 3UNIL, Lausanne, Switzerland; 4UNIGE, Geneva, Switzerland; 5University of Geneva, Geneva, Switzerland; 6Department of Radiology, University Hospital of Lausanne (CHUV), Lausanne, Switzerland

2211 Sex Differences in Fragile Organization of Brain White Matter Networks over the Adult Lifespan
Chih-Chin Hu1, Chun-Yi Zac Lo2, Yong He3, Ching-Po Lin4
1National Yang-Ming University, Taipei, Taiwan; 2University of Helsinki, Helsinki, Finland; 3University of Helsinki and Helsinki University Hospital, Helsinki, Finland

2212 Cortical Thickness, Surface Area, and Cortical Folding in Neonates with Prenatal Cocaine Exposure
Jing Xia1, Karen Grewen2, Caiming Zhang3, Fan Wang4, Li Wang5, Dinggang Shen5, Gang Li6
1Department of Computer Science and Technology, Shandong University, Jinan, China; 2Department of Radiology and BIRC, University of North Carolina at Chapel Hill, Chapel Hill, NC; 3Department of Psychiatry, University of North Carolina at Chapel Hill, Chapel Hill, NC

2213 Functional connectivity during the first year of premature babies with neurohabilitation training
Astrid Cancino1, Manuel Hinojosa1, Jorge Bosch-Bayard2, Thalia Harmony3
1Instituto de Neurobiología / Universidad Nacional Autónoma de México, Queretaro, Mexico; 2Instituto de Neurobiología / Universidad Nacional Autónoma de México, Queretaro, Mexico; 3Institute for Neurobiology, UNAM, Campus Juriquilla, Queretaro, Mexico

2214 Parsimony and Machine Learning for Neuroimaging
Nina Migneurishvili1, Dylan Nelson1, John Lee2, Adam Thomas3, Philip Shaw4, Peter Bandettini5
1Data Science and Sharing Team, National Institute of Mental Health (NIMH), Rockville, MD; 2Data Science and Sharing Team, National Institute of Mental Health (NIMH), Bethesda, MD; 3National Institute of Mental Health, Bethesda, MD; 4NIH, Bethesda, MD

2215 Functionally Predictive Differences in Connectivity in the DLPFC are Present in Infants
Chiara Caldellini1, Laura Cabral2, Rhodri Cusack3
1Trinity College Dublin, Dublin, Ireland; 2Western University, London, Ontario

2216 Temporal Evolution of Inter- and Intra-subject Variability of Functional Connectivity in Infants
Fan Wang1, Yu Meng2, Han Zhang3, Junyi Yan4, Li Wang5, Wei Lin1, Dinggang Shen6, Gang Li7
1Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States

2217 Development of Right-Hemispheric Dominance of Inferior Parietal Lobule in Proprioceptive Illusion
Eiichi Naito1, Tomoyo Morita2, Daiusuke Saito3, Midori Ban4, Koji Shimada5, Yuko Okamato5, Hirota Kosako5, Hidehiko Okawaza5, Minoru Asada5
1CiNet NICT, Osaka, Japan; 2Osaka University, Osaka, Japan; 3Kanazawa University, Kanazawa, Japan; 4Doshisha University, Kyoto, Japan; 5University of Fukui, Fukui, Japan; 6ATR, Kyoto, Japan

2218 Development of Right Hemispheric Dominance in Self-Body Recognition Tasks
Tomoyo Morita1, Daiusuke Saito2, Midori Ban3, Koji Shimada4, Yuko Okamato5, Hirota Kosako5, Hidehiko Okawaza5, Minoru Asada6, Eiichi Naito6
1Osaka University, Osaka, Japan; 2Kanazawa University, Kanazawa, Japan; 3Doshisha University, Kyoto, Japan; 4University of Fukui, Fukui, Japan; 5ATR, Kyoto, Japan; 6CiNet NICT, Osaka, Japan

2219 Maternal depressive symptoms and structure of the stress network in preschool children
Rebecca Hay1, Jess Reynolds1, Melody Grohs2, Nicole Letourneau3, Gerald Giesbrecht4, Bonnie Kaplan5, Deborah Dewey6, Catherine Lebe6
1University of Calgary Cumming School of Medicine, Calgary, Canada

2220 Modular organization of functional networks in preterm infants predicts their cognitive outcome
Anton Torkar1, Susanna Stjerna2, Uulikki Lando3, Mari Jotisäntä4, Sampsa Vanhatalo5
1Baby Brain Activity Center and University of Helsinki, Helsinki, Finland; 2University of Helsinki and Helsinki University Hospital, Helsinki, Finland

2221 Measuring macroscopic excitatory/inhibitory balance in neonates using MRI computational models
Dafnis Batalle1, Adrian Ponce-Alvarez2, Daan Christiens3, Sean Fitzgibbon4, Antonios Makropoulos5, Lucilio Cordero-Grande6, Christopher Kelly7, Judit Cierrusta8, Anthony Price9, Emer Hughes10, Jana Hutter11, Rui Teixeira12, Eugene Duff13, Emma Robinson14, Jonathan O’Muireachtaigh15, J-Donald Toumi16, Tomoki Arichi17, Joseph Hagfl1, A. David Edwards18, Gustavo Deco19, Serena Counsell20
1King’s College London, London, United Kingdom; 2Universitat Pompeu Fabra, Barcelona, Spain; 3Oxford University, Oxford, United Kingdom; 4Imperial College London, London, United Kingdom

2222 Visual categories in infants: local selectivity and distributed connectivity mature together
Leire Zubiaurre1,2, Conor Wild1, Annika Linke3, Rhodri Cusack4
1Western University, London, Canada; 2Univ. of Deusto, Donostia, San Sebastian, Spain; 3San Diego State Univ, San Diego, United States; 4Trinity College Dublin, Dublin, Ireland

2223 Short-range functional connections at birth predict neurodevelopmental outcome at 2 years of age
Minhui Ouynan1, Qimin Peng2, Michelle Slinger3, Hao Huang4
1Department of Radiology, Children’s Hospital of Philadelphia, Philadelphia, PA, United States; 2Department of Radiology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, United States; 3Data Science and Sharing Team, National Institute of Mental Health, Bethesda, MD; 4ATR, Kyoto, Japan
2224 Longitudinal development of white matter fibre density and morphology in the peripubertal period
Silo Genc1,2, Robert Smith3,2, Charles Malpas2, Vicki Anderson1, Jan Nicholson1, Daryl Efron1, Marc Seal2, Timothy Silk1
1Murdoch Children’s Research Institute, Parkville, Australia, 2The University of Melbourne, Parkville, Australia, 3Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, 4La Trobe University, Melbourne, Australia

2225 Age, sex, and puberty related development of the corpus callosum: a diffusion MRI study
Sila Genc2,2, Charles Malpas2, Gareth Ball1, Marc Seal2, Timothy Silk2
1Murdoch Children’s Research Institute, Parkville, Australia, 2The University of Melbourne, Parkville, Australia, 3Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, 4La Trobe University, Melbourne, Australia

2226 FMRI investigation of associative learning in newborn infants
Sofia Dall’Orso1,2, William Fifer3, Peter Balsam3, Katy Vecchiato2, David Edwards2,1, Etienne Burdet1, Tomoki Arichi2,1
1Department of Bioengineering, Imperial College London, London, United Kingdom, 2Centre for the Developing Brain, King’s College London, London, United Kingdom, 3Department of Psychiatry, Columbia University, New York, NY

2227 Automated Multi-Modal Segmentation of the Midsagittal Corpus Callosum to Map Structural Development
Alyssa Zhu1, Arvin Sarem1, Paul Thompson1, Neda Jahaneshd1
1USC Imaging Genetics Center, Marina del Rey, CA

2228 Pubertal Testosterone Correlates with Adolescent Impatience and Dorsal Striatal Activity
Corinna Laube1, Robert Lorenz2, Wouter van den Bos1
1Max Planck Institute for Human Development, Berlin, Germany

2229 Arcuate fasciculus lateralization and its relation to pre-reading skills in preschool children
Jess Reynolds1, Melody Grohs1, Deborah Dewey1, Catherine Lebel1
1University of Calgary, Calgary, Canada

2230 Sex differences in the neural correlates of neuroticism: A longitudinal DTI study in children
Louise Boruel Johansen1,4, William Baaré1, Terry Jernigan1,3, Kathrine Skak Madsen1,4
1Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, 2Center for Neuropsychiatric Schizophrenia Research, Copenhagen University Hospital Glostrup, Glostrup, Denmark, 3Center for Human Development, University of California, San Diego, United States, 4Institute of Technology, Metropolitan University College, Copenhagen, Denmark

2231* White matter hemispheric asymmetry of the newborn brain: a multi-centric diffusion MRI study
Andras Jakab1, Cornelia Hagmann1, Raimund Kottke3, Christian Kellenberger1, Ianina Scheer1, Robert Wright4, Andreas Schuh4, Emer Hughes5, Joanna Al-Sharif1, Gregory Kiar1, Budhachandra Khundrakpam1
1Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, 2Department of Biomedical Engineering, King’s College London, London, United Kingdom, 3University Children’s Hospital Zurich, Zurich, Switzerland

2232* Multi-Layer Functional Connectome Reveals New Developmental Patterns of the Infant Brain
Han Zhang1, Weiyan Yin1, Natalie Stanley1, Peter Mucha1, Weili Lin1, Dinggang Shen1
1University of North Carolina at Chapel Hill, Chapel Hill, NC, 2University of Calgary, Calgary, Alberta, 3University of Calgary, Calgary, Canada

2233 Neurological Links to Internalizing and Externalizing Behaviours in Healthy Children
Quinn Andre1, Bryce Geeraert1, Catherine Lebel1
1University of Calgary, Calgary, Alberta, 2University of Calgary, Calgary, Canada

2234* Adolescent development of functional brain networks
František Váša1, Petra Vérites1, Rafael Romero-Garcia1, Manfred Kitzbichler1, Kirstie Whitaker1,2, Jakob Seidlitz1,2, Peter Fonagy1, Raymond Dolan1, Peter Jones1,5, Ian Goodyer1,5, Edward Bullmore4,5,6
1University of Cambridge, Cambridge, United Kingdom, 2Alan Turing Institute, London, United Kingdom, 3National Institute of Mental Health, Bethesda, MD, 4University College London, London, United Kingdom, 5Cambridgeshire and Peterborough NHS Foundation Trust, Huntington, United Kingdom, 6GlaceSmithKline R&D, Stevenage, United Kingdom

2235 White Matter Maturation in Late Childhood is Dominated by Axonal Packing and not Myelin
Bryce Geeraert2, Marc Lebel2, Alyssa Mah1, Seán Deoni2, Catherine Lebel1
1University of Calgary, Calgary, Canada, 2Brown University, Providence, RI

2236 Exploring whole-brain structural connectivity and cognitive performance in typical development
Noor Al-Sharif1, Gregory Kia1, Budhachandra Khundrakpam1, Alan C. Evans1
1McGill University, Montreal, Canada

2237 The impact of maternal reading history on the brain lateralization in infants: a longitudinal study
Xi Yu1, Jake Dunstan1, Michael Figuccio1,2, Jennifer Zuk4,5, Clarisa Carruthers6, Joseph Sanfiippo1, P Ellin Grant1, Nadine Gaabi1,5
1Boston Children’s Hospital/Brigham Medical School, Boston, MA, 2Boston Children’s Hospital, Boston, MA, 3Farmingdale State College, East Farmingdale, NY, 4Harvard University, Boston, MA, 5Harvard Graduate School of Education, Cambridge, MA

2238 Discovering Brain Developmental Regionalization during the First Two Postnatal Years
Fan Wang1, Zhengfang Wu1, Chunfeng Lian1, Li Wang1, Weili Lin1, Dinggang Shen1, Gang Li1, Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States

2239 Reproducibility of in utero diffusion tensor neuroimaging
Andras Jakab1, Ruth O’Gorman Tuura1, Christian Kellenberger1, Ianina Scheer1
1University Children’s Hospital Zurich, Zurich, Switzerland

2240 The developing Human Connectome Project automated functional processing framework for neonates
Sean Fitzgibbon1, Jesper Andersson1, Samuel Harrison1, Emma Robinson1, Jelena Bozek1, Antonios Makropoulos1, Matteo Bastiani1, Ludovica Griffanti1, Robert Wright1, Andreas Schuh4, Emer Hughes5, Jonathan O’Muireachtaigh1, Tomoki Arichi2,6, Judith Ciarrosta7, Ana Dos Santos Gomes1, Joaonn Allsop1, Johannes Steinweg1, Nora Tusor3, Julio Wurie1, Suresh Victor1, Anthony Price1, Lucilla Cordero Grande1, Jana Hutter1, Christian Beckmann2, Joseph Hajnal1, Daniel Rueckert1, David Edwards1, Stephen Smith1, Mark Jenkinson1, Eugene Duff8,9
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2264 Cortical T1 contrast as a predictor of chronological age, and an index of cognitive performance
John Lewis1, Alan C. Evans1, Jussi Tohka2
1Montreal Neurological Institute, Montreal, Canada, 2Al Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland

2266 A predictive approach to explore clinical state, emotional valence and pharmacologic effect in human
Daniel Barron1, Mehraveh Salehi2, Michael Browning1, Catherine Harmer1, Robert Constable1, Eugene Duff2
1Yale University, Hamden, CT, 2Yale University, New Haven, CT, 3Oxford University, Oxford, United Kingdom, 4Interdepartmental Neuroscience Program, Yale University, New Haven, CT

2265 A predictive approach to explore clinical state, emotional valence and pharmacologic effect in human
Daniel Barron1, Mehraveh Salehi2, Michael Browning1, Catherine Harmer1, Robert Constable1, Eugene Duff2
1Yale University, Hamden, CT, 2Yale University, New Haven, CT, 3Oxford University, Oxford, United Kingdom, 4Interdepartmental Neuroscience Program, Yale University, New Haven, CT

2269 Non-negative projection dictionary pair learning for the prediction of early Alzheimer’s Disease
Mingli Zhang1, Gleb Bezgin1, Wei Hong Xu2,3, Alan Evans1
1McGill Centre for Integrative Neuroscience, Montreal Neurological Institute, McGill University, Montreal, Canada, 2Dian School of Medical Laboratory Sciences, Hangzhou, Zhejiang, 3Brain Research Institute, National Yang-Ming University, Taipei, Taiwan

2268 Sex-specific classification models better distinguish schizophrenia patients from healthy controls
Xiaofeng Zhu1, Hongming Li2, Yong Fang3
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2270 Autism classification using heat kernels to characterise brain topology
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2267 Identifying Neuro-imaging Markers between Essential Tremor and Parkinson’s disease via MVPA
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2271 An fMRI study on functional connectivity based auditory information decoding
Jinliang Zhang1, Gaoyan Zhang1
1School of Computer Science and Technology, Tianjin University, Tianjin, China

2263 Reproducible evaluation of Alzheimer’s Disease classification from MRI and PET data
Jorge Samper-Gonzalez12, Simona Bottani12, Ninon Burgos12, Sabrina Fontanella12, Pascal Lu12, Arnaud Marcoux12, Alexandre Routier12, Jérémy Guillon12, Michael Bacci12, Junhao Wen12, Anne Bertrand12, Hugo Bertin1, Marie-Odile Habert12, Stanley Durrleman12, Theodoras Evgeniou1, Olivier Colliot12
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2262 Fingerprinting Metabolic Dysregulation and Adiposity in the Brains of Overweight and Obese Humans
Michael Farruggia12, Maria Van Kooten3, Mary Burke12, Dustin Scheinost12, Dana Small12
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2261 Classification of Normal Subjects and AD/MCI Patients Using Deep Learning and Structural Network
Jih-Rong Chen1, Yi-Ping Chao1
1Chang Gung University, Taoyuan, Taiwan

2259 Gender Specific: Predicting Individualized IQ Scores Using Whole-brain Functional Connectivity
Rongtao Jiang12, Jing Sui12, Simona Bottani12, Ninon Burgos12, Sabrina Fontanella12, Pascal Lu12, Jing Sui12,3
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2260 Spatiotemporal vector representation for event-related multivoxel pattern analysis
Jeffrey Soldato1, Giuseppe Pagnoni2, Jonathan Lisinski3,2, Stephen LaConte4
1Virginia Polytechnic Institute and State University, Roanoke, VA, 2Universita degli Studi di Modena e Reggio Emilia, Modena, Italy, 3Virginia Tech Carilion Research Institute, Roanoke, VA, 4Virginia Tech, Roanoke, VA

2258 Classification and Predictive Modeling, MODELING AND ANALYSIS METHODS
Olivier Colliot14,9, Arnaud Marcoux12, Alexandre Routier13, Jérémy Guillon12, Michael Bacci12, Junhao Wen12, Anne Bertrand12, Hugo Bertin1, Marie-Odile Habert12, Stanley Durrleman12, Theodoras Evgeniou1, Olivier Colliot12
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2257 Benchmarking of nuisance regression strategies in functional brain age prediction for late adulthood
Chen-Yuan Kuo1, Kun-Hsien Chou2,2, Pei-Lin Lee1, Sheng-Chie Hung1, Pei-Ning Wang2, Liang-Kung Chen1, Ching-Po Lin12,3
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Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
Understanding the heterogeneous neurobiology of Autism Spectrum Disorder (ASD) using normative model
Mariam Zabih1, Christine Ecker1, Marianne Oldehinkel1, Vincent Frouin1, David Goyard1, Jan Boutella1, Decian Murphy1, Christian Beckmann1, Andre Marquand1
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Clustering ROIs based on Inner Product of Differences between Low-Rank Correlation Matrices
Kensuke Tanioka1, Satoshi Hiraoka1, Tomoyuki HIroyasu2, Hiroshi Yadahisa2
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Data driven predictive model of whole brain fMRI signal dynamics with external stimuli
Rui Tang1, Chuankai Cheng1, Eric Wong1
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Comparison of DTI Features for the Classification of Alzheimer’s Disease: A Reproducible Study
Junho Wein2, Jorge Samper-Gonzalez2,2, Simona Bottani3,2, Alexandre Routier3,2, Ninon Burgos2, Sabrina Fontanella2, Thomas Jacquemont4,2, Stanley Durdleman2, Anne Bertrand1,5, Olivier Collot1,6

A Graph Theoretical Approach for Classifying Autism Using Support Vector Machines
Amirali Kazeminejad1, Roberto Sotero Diaz2
1University of Calgary, Calgary, Alberta

Sex classification by resting state brain connectivity
Susanne Wei1, Kaustubh Patil1, Felix Hoffstaedter1, Alessandra Nostra2, B. T. Thomas Yeo3, Simon Eckhoff4
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Investigating Ensemble Learning for Multi-Modal Data Fusion and Classification in Cervical Dystonia
Shruti Narasimhan1, Alexander Meulemons2, Rebecca Beck1, Seán O’Riordan3, Michael Hutchinson4, Richard B. Reilly1
1Trinity College, University of Dublin, Dublin, Ireland, 2KU Leuven, Leuven, Belgium, 3St. Vincent’s University Hospital, Dublin, Ireland

Radiomic features of the hippocampus for classification AD: a multicenter MRI study (N=719)
Kun Zhao1,2, Yanhui Ding1, Ying Han2, Tianzi Jiang3,4,5, Dan Jin6,2, Bing Liu7,8, Pan Wang9,1, Daowei Wang10, Qiu Wang10, Kaibin Xu4,5, Chunshui Yu3, Xiaqing Zhang1, Xi Zhang1, Yuying Zhou1, Yang Liu3,4,5
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Localized comparison of grey matter maps for age prediction in healthy and clinical populations
Sarah Genon1, Deepthi Varikuti2, Aristides Sotiras3, Holger Schwenker4, Felix Hoffstaedter1,2, Kaustubh Patil1, Christiane Jockwitz3, Svenja Caspers4, Katrin Amunts1,2,4, Christos Davatzikos5, Simon Eckhoff4
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Patterns of seed-based voxel-wise functional connectivity predict local glutamate in pgACC
Louise Martens1, Nils Kroemer1, Vanessa Teckentrup2, Lejlo Cocic3,4, Meng Lu3,4,5, Martin Walter2,3,4,5
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Python-based Hyperparameter Optimization Toolbox for Neural Networks (PHOTON)
Ramona Leenings1, Nils Winter2, Clasps Kaeberle3, Daniel Emden4, Kelvin Sarink5, Nils Ope1, Ronny Redlich1, Jonathan Reppl6, Dominik Grotegerd1, Katharina Foerster1, Katharina Dohm1, Dario Zaremba1, Elisabeth Leehr1, Joscha Böhnlein1, Christian Burger1, Susanne Meinert6, Verena Enneking1, Wolter Heinde1, Harald Kugel1, Volker Arot1, Xiaoyi Jiang1, Udo Dannlowski1, Tim Hahn1,2,3
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Self-adaptive site schizophrenia’s diagnostics by deep neural networks
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2284 Predicting Trauma-Focused Therapy Outcome from Resting-State fMRI in Veterans with PTSD
Paul Zhulovsky1,2,3, Rojat Thomas2,3, Tim Verhecken5,6, Miranda Olf7, Sanne van Rooij8, Mitzy Kennis9, Guido van Wingerden1,2, Elbert Geuze1,2* Department of Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 1Amsterdam Neuroscience, Amsterdam, Netherlands, 2Amsterdam Brain and Cognition, University of Amsterdam, Amsterdam, Netherlands, 3University Medical Center, Utrecht, Netherlands, 4Research Center Military Mental Health Care, Utrecht, Netherlands, 5Department of Experimental Psychology, Utrecht University, Utrecht, Netherlands, 6Arq Psychotrauma Expert Group, Diemen, Netherlands, 7Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA, 8Department of Clinical Psychology, Utrecht University, Utrecht, Netherlands

2285 Category Representations in the Brain Are Both Discretely Localized and Widely Distributed
Zarrar Shehzad*, Gregory McCarthy2 1Yale University, New Haven, CT, 2Yale University, New Haven, United States

2286 Discriminating Adult ADHD from HC Using Feature Selection Method on the Basis of Relative Importance
Dongren Yao1, Xiaojie Guo2,4, Qihua Zhao3,4, Hui Li5,4, Fang Huang6,4, Yanfei Wang4, Lu Liu4, Qing Liu4, Qiuqian Qian4, Yufeng Wang9, Li Sun5,4, Jing Su1,2,3* Brainnetome Center and National Laboratory of Pattern Recognition, CASIA, Beijing, China, 2University of Chinese Academy of Sciences, Beijing, China, 3Peking University Sixth Hospital, Institute of Mental Health, Beijing, China, 4National Clinical Research Center for Mental Disorders & Key Laboratory of Mental Health, Ministry of Health (Peking University), Beijing, China, 5The Mind Research Network and Love lace Biomedical and Environmental Research Institute, Albuquerque, NM, 6CAS Center for Excellence in Brain Science, Institute of Automation, Chinese Academy of Sciences, Beijing, China

2287 Multimodal Image Analysis in Post-traumatic Stress Disorder Xiaojing Zhang, Drexel University, Philadelphia, PA

2288 Generalizability of automated structural MRI quality control across different datasets Ben Duffey1, Giuseppe Barisano1, Samuel Hobel1, Mher Poghosyan2, Lu Zhao3, Farshid Sepehrband1, Meng Law4, Arthur Toga1, Hong Lou5,6,7* Laboratory of Neuro Imaging (LONI), Stevens Neuroimaging and Informatics Institute of USC, Los Angeles, CA

2289 Identifying Conduct Disorder using a Multiparameter Classification Approach based on Structural MRI Wanyi Cao1, Jianing Zhang2, Yali Jiang1, Bingsheng Huang2,1, Shuqiao Yao1 1Medical Psychological Center, The Second Xiangya Hospital, Central South University, Changsha, China, 2School of Biomedical Engineering, Health Science Center, Shenzhen University, Shenzhen, China

2290 Functional development related to inhibition control from adolescence to young adulthood Haiyan Wang1,2, Lingzhong Fan3, Gunter Schumann4,5,6,7,8,9 Imaging Consortium,1 Tianzi Jiang1,2,3,4,5,6,7,8,9 1Brainnetome Center, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 2National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 3University of Chinese Academy of Sciences, Beijing, China, 4Institute of Psychiatry, King’s College London, London, United Kingdom, 5Multiple Institutes, Multiple Cities in Europe, France, 6CAS Center for Excellence in Brain Science and Intelligence Technology, Institute of Automation, Chinese Academy of Sciences, Beijing, China, 7The Clinical Hospital of Chengdu Brain Science Institute, MOE Key Lab for Neuroinformatics, University of Electronic Science and Technology of China, Chengdu, China, 8The Queensland Brain Institute, University of Queensland, Brisbane, QLD, Australia

2291 Classification of mindfulness and mind-wandering states using functional connectivity patterns Niv Lustig1, Hyun-Chul Kim1, Jong-Hwan Lee1 1Korea University, Seoul, Korea, Republic of

2292 Classifying Schizophrenia Using Deep Network on Functional Network Connectivity Weizheng Yan1,2, Sergey Pili3, Vinc Calhoun4, Shengfeng Liu5, Ming Song2, Luxian Lv1, Yue Cui2, Lingzhong Fan3, Nianming Zuo1, Kaibin Xu5, Yuhui Du1, Qingbao Yu1, Yang Xu1, Sha Liu1, Jun Chen3, Yunchun Chen1, Huangquan Wang2,4, Hua Guo1, Ping Wang6, Yongfeng Yang2, Hao Yan7, Peng Li7, Lin Lu3,6, Jun Yan8,9, Huxiun Wang2,10, Hongxing Zhang2,11, Dai Zhang4, Tianzai Jiang1, Jing Sun2* Institute of Automation, Chinese Academy of Sciences, Beijing, China, 2The Mind Research Network & LBERI, Albuquerque, NM, 3Brainnetome Center and National Laboratory of Pattern Recognition, Institute of Automation, Beijing, China, 4The Second Affiliated Hospital of Xinxiang Medical University, Xinxiang, China, 5Brainnetome Center and National Laboratory of Pattern Recognition, Institute of Automation, Beijing, China, 6Institute of Automation, Chinese Academy of Sciences, Beijing, China, 7Department of Psychiatry, First Clinical Medical College, Toiyuan, China, 8Department of Radiology, Renmin Hospital of Wuhan University, Wuhan, China, 9Department of Psychiatry, Xijing Hospital, The Fourth Military Medical University, Xi’an, China, 10Xijing Hospital, The Fourth Military Medical University, Xi’an, China, 11Zhumadian Psychiatric Hospital, Zhumadian, China, 12University of Electronic Science and Technology of China, Chengdu, China, 13Ministry of Health, Peking University, Beijing, China, 14Peking University Sixth Hospital, Institute of Mental Health, Beijing, China, 15Department of Psychiatry, Renmin Hospital of Wuhan University, Wuhan, China, 16Department of Psychology, Xinxiang Medical University, Xinxiang, China

2293 Classification of Major Depressive Disorder via Functional Connectivity and Effective Connectivity Junhai Xu1, Junyan Wang2, Xiangfei Geng1, Yonggang Shi1 1School of Computer Science and Technology, Tianjin University, Tianjin, China, 2Laboratory of Neuro Imaging (LONI), USC Stevens Neuroimaging and Informatics Institute, Keck School of Medicine, University of Southern California, Los Angeles, CA, 3USC Stevens Neuroimaging and Informatics Institute, University of Southern California, Los Angeles, CA, 4USC Stevens Neuroimaging and Informatics Institute, University of Southern California, Los Angeles, CA

2294 Deep Learning on Large Cohort Improves Brain Age Prediction in Bipolar and Major Depressive Disorder Nils Winter1,2,3, Claas Koehler1, Ramona Leenings1, Daniel Emden1, Nils Oepel1, Ronny Redlich1, Jonathan Repple4, Dominik Grotegerd5, Katharina Dohr1, Dario Zaremba1, Elisabeth Leebh1, Joscha Bähnlein1, Katharina Förster1, Christian Bürger1, Susanne Meinert1, Verena Enneking1, Walter Heinde1, Horald Kugel1, Volker Arolt1, Bernhard Baune1, Xiaoyi Jiang1, Ksenia Sokolova1, Giovanni Montaño1, Udo Donnolowski1, Christian Gase2, Tim Hahn1 1Department of Psychiatry, University of Münster, Münster, Germany, 2Department of Clinical Radiology, University of Münster, Münster, Germany, 3Discipline of Psychiatry, School of Medicine, University of Adelaide, Australia, Adelaide, Australia, 4Department of Computer Science, University of Muenster, Münster, Germany, 5Department of Biomedical Engineering, King’s College London, London, United Kingdom, 6University Hospital Jena, Jena, Germany

2295 Cross-cohort study of resting fMRI biomarkers for schizophrenia Dongdong Liu1, Yuhui Du1, Zening Fu1, Mustafa Salimans2, Md Rehaman1, Anees Abro1, Jiyu Chen1, Jing Su1, Vinc Calhoun4* 1The Mind Research Network, Albuquerque, NM, 2The Mind Research Network & LBERI, Albuquerque, NM, 3mind research network, Albuquerque, NM, 4The Mind Research Network, Albuquerque, United States, 5The Mind Research Network, Albuquerque, NM, 6The Mind Research Network, Albuquerque, NM, 7Mind/UNM, Albuquerque, NM
Classifying mesial temporal lobe epilepsy based on dynamic brain networks and long short-term memory

Rong Li1, Yangyang Yu1, Chong Wang2, Wei Liao1, Jing Guo3, Zhiqiang Zhang4, Huafu Chen1
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Predicting Vigilance State from the Mean Voxels Signals of Arousal Network

Tara Chand1,2, Meng Li1,2, Viola Barchardt1, Hamidreza Jamalabadi1,2, Sarah Alizadeh1,2, Galina Surova1, Martin Walter1,2,3,4
1Max Planck Institute for Biological Cybernetics, Tübingen, Germany; 2Eberhard Karls University, Tübingen, Germany; 3Clinical Affective Neuroimaging Laboratory, Magdeburg, Germany; 4Leibniz Institute for Neurobiology, Magdeburg, Germany

Detecting transgenerational effects of gestational diabetes and maternal BMI on the offspring brains

Jordi Manue1,2, Juan Verdejo-Román1, Francisco Torres Espinola1,2, Miriam Arias1,2, Andrés Catena1,2, Franco Cauda1,2, Cristina Campoy1,2
1GCS-fMRI, Koeliker Hospital and Department of Psychology, University of Turin, Turin, Italy; 2FOCUS Lab, Department of Psychology, University of Turin, Turin, Italy; 3Mind, Brain and Behavior Research Centre, University of Granada, Granada, Spain; 4EURISTIKOS Excellence Centre for Pediatric Research, University of Granada, Granada, Spain; 5Department of Pediatrics, School of Medicine, University of Granada, Granada, Spain

Pattern Recognition for Neuroimaging Toolbox (PRoNTo) v2.1

Tong Wu1, Jessica Schrouff2, Maria Rosal1, Joao Monteiro1, Anil Rao1, Juan Arco1, Christophe Phillips4, Janaïna Mourao-Miranda1
1University College London, London, United Kingdom; 2Stanford University, Stanford, CA; 3University of Granada, Granada, Spain; 4University of Liège, Liège, Belgium

3D convolutional neural network for feature extraction and classification of sensorimotor fMRI data

Hanh Vu1, Huyn-Chul Kim1, Jong-Hwan Lee1
1Korea University, Seoul, Korea, Republic of

Unraveling the relation between Functional Connectivity, Working Memory Performance and Age

Kastubh Patil2, Rachel Pläschke1,2, Alessandra Nostro1,2, Deepthi Varikuti1,2, Anna Plachti1,2, Patrick Surova3, Martin Walter1,2,3,4, Surova
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Predicting Multitasking Abilities from Network-Based Functional Connectivity in Young and Old Adults

Robert Longner1, Rachel Pläschke1,2, Anna Plachti1,2, Kaustubh Patil1, Simon Eckhoff2, Luke Hyde1, Christopher Monk1
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Examining Behavioral Prediction Using Task-Induced Functional Connectivity Networks

Natasza Topolska1, Emily Finn2, Daniel Handwerker3, Peter Bandettini3
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FMRI-based prediction models of free recall, emotional valences, and memorability of pictures

Thomas Dorfer1, Minke Pater2, Leo Gschwind3, Andreas Papassotropoulos4, Dominique de Quervain5, Gediminas Lukys6,7
1University of Queensland, Brisbane, Australia; 2University of Edinburgh, Edinburgh, United Kingdom; 3University of Basel, Basel, Switzerland

Support vector machine classification of three psychiatric disorders and one control group

Yo-han Joo1, Yun-Kwan Kim1, Jinhoong Kim1
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Diffusion MRI Modeling and Analysis

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MODELING AND ANALYSIS METHODS
Diffusion MRI Modeling and Analysis, continued

2315 A Deep Learning Approach to Spherical Deconvolution for Fiber Orientation Estimation in HARDI
Vishal Patel1, Paul Thompson2, Arthur Toga2
1David Geffen School of Medicine at UCLA, Los Angeles, CA, 2Keck School of Medicine of University of Southern California, Los Angeles, CA

2316 Global Quantification of Structural Brain Connectivity
Aina Frau-Pascual1, Anastasia Yendiki1, Bruce Fischl2, Iman Aganj1,2
1Athinoula A. Martinos Center for Biomedical Imaging, MGH, Harvard Medical School, Charlestown, MA, 2Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, Cambridge, MA

2317 Improving Fingerprint matching for ODFs in Diffusion MRI by using a fiber complexity penalty
Steven Boeije1, Ying-Chia Lin2, Martijn Cloos1,2, Fernando Boada1,2
1Center for Advanced Imaging Innovation and Research (CAI2R), NYU School Of Medicine, New York, NY, 2Center for Biomedical Imaging, Dept of Radiology, NYU School Of Medicine, New York, NY

2318 Mipy: An Open-Source Framework to improve reproducibility in Brain Microstructure Imaging
Rutger Fick1, Demian Wassermann1, Rachid Deriche1
1INRIA, Sophia Antipolis, France, 2INRIA, Paris, France

2319 Biomimetic numerical phantoms for white matter tissues characterization with few design parameters
Kevin Ginsburger1, Fabrice Poupon1, Jean-Francois Mangin1, Cyril Poupon1
1INRIA, CEA/DRF/Neurospin, Gif-sur-Yvette, France, 2INATI, CEA/DRF/Neurospin, Gif-sur-Yvette, France

2320 Remapping of Spatial Preference in the Hippocampus
Yoni Katzir1, Shir Hafstetter1, Maya Foraggio1, Yaniv Assaf1
1Tel Aviv University, Tel Aviv, Israel, 2The Hebrew University, Jerusalem, Israel

2321 A novel moving frame approach for topographically organized white matter fiber tractography
Dagu Baran Aydogan1, Yonggang Shi1
1Keck School of Medicine of USC, Los Angeles, CA, United States

2322 Tractography atlas-based analysis: a novel voxel-wise white matter analysis
Junya Mu1, Jixin Liu1
1University of California San Francisco School of Medicine, San Francisco, CA

2323 Laterality of the arcuate fasciculus depends on choice of tractography
Jonathan Bain1, Jason Yeatman2, Roey Schurr3, Ariel Rokem4, Aviv Mezer5
1Hebrew University, Jerusalem, Israel, 2University of Washington, Washington, United States, 3The Edmond and Lily Safra Center for Brain Science, The Hebrew University of Jerusalem, Jerusalem, Israel

2324 Connectivity impacted by copy-number variation in the Williams syndrome chromosomal region 7q11.23
Jonathan Kippenhan1, Michael Gregory1, Tiffany Nasti1, Ranjan Prabhakaran1, Carolyn Mervis2, Daniel Eisenberg3, Orma Ravindranath1, Danielle Currin1, Shannon Grogans1, Madeline O’Brien1, Philip Kohan1, Karen Berman3
1NIH/NIMH, Bethesda, MD, 2University of Louisville, Louisville, KY, 3NIH, Bethesda, MD

2325 Assessing Microstructure Indices of Brain Tumor: A NODDI Study
Shin Tai Chong1, Hung-Wen Kao2, Chien-Yuan Lin3, Chiao-Chi Chen3, Chun-Yi Lo3, Ching-Po Lin3, Chen Chang4
1Institute of Neuroscience, National Yang Ming University, Taiwan, 2Department of radiology, Tri-Service General Hospital, National Defense Medical Center, Taiwan, 3GE Healthcare, Taiwan, 4Institute of Biomedical Sciences, Academia Sinica, Taiwan, 5Institute of Science and Technology for Brain-inspired Intelligence (ISTBI), Fudan University, Shanghai, China

2326 Diffusion-Weighted MR Signal Sparsity Reveals White Matter Alterations in Alzheimer’s Disease
Vishal Patel1, Noriko Solomon1
1David Geffen School of Medicine at UCLA, Los Angeles, CA

2327 A new microstructural model for simulations of convection-enhanced drug delivery to the human brain
Erinn Messerink1, S. Umesh Rudrapatna1, William Gray2, Derek Jones1
1Cardiff University, Cardiff, United Kingdom

2328 GPU-LIFE: GPU-based acceleration for evaluation of human connectomes
Sawan Kumar1, Varsha Sreenivasan1, Madhav Gumm1, Cesar Caiafa1, Partha Talukdar1, Franco Pestilli1, Deva Ranjan Srivastava1
1Indian Institute of Science, Bangalore, Karnataka, India, 2Indiana University, Bloomington, IN

2329 ADNI dMRI: White Matter Microstructure and its Relation to Alzheimer’s Disease Severity Measures
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2330 Longitudinal harmonization of baby diffusion MRI data
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2331* Bootstrapping FOD: Accuracy advantages and other benefits of estimating shape uncertainty
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2332 Radial Fiber Deformation: A New, Clinically Relevant Metric For Tensor-based Morphometry
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2333 Evaluation of ICA for Extracting Source Information from Simulated EEG and fMRI signals
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2334 Multi-Subject, Resting-State EEG Spectral Density Estimation Using Nested Dirichlet Processes
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2340 A linear network model of brain activity
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2341 EEG functional connectivity reflects MRI estimates of damage to the Fronto-Occipital Fasciculus
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2342 How cognitive control modulates intrinsic effective connectivity
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2343 Detecting Electrode Bridges Using Electrical Impedance Tomography (EIT)
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2344 Inter-individual differences in noise-induced brain dynamics
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2345 Adaptive spatial filtering for online EEG artefact removal
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2346 Hemispherical Harmonics based Brain Source Localization
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2347 SPM-based pipeline for the pre-processing of ECoG signals
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2348 EEG connectivity measures wPLI and wSMI identify distinct types of brain functional interactions
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2349 Reconstructing neural oscillations from the human hippocampus and amygdala using MEG
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2350 Online EEG phase detection for targeting the phase of cortical oscillations using TMS
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2351 Spanning the dynamics of emotion regulation: Manifold learning of EEG connectomics in social anxiety
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2352* Spontaneous reconfiguration of waves in a model of large-scale brain dynamics
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2353* Characterizing epileptic networks in intracerebral EEG and simultaneous iEEG/MEG recordings
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2355 Exploring Spatio-Spectral EEG Correlates of Emotional Responses along Days

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2356 Toolbox for the extension of the qEEG to MEG

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2357 Influence of cardiorespiratory perturbation on cardiobiastical peak timing variations in EEG-fMRI

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2358 Achieving Super-Resolution in EEG Sources Cross-Spectra Estimation

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Exploratory Modeling and Artifact Removal

2359 Mean shifted Z values may lead to incorrect statistical inferences

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2360 Anatomy-guided Inverse-gradient Susceptibility Artefact Correction Method for High-resolution fMRI

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2361 Subject-specific Physiological Noise Modelling with Deep Variational Inference

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2362 Transcranial cortical response uncovered from the unwanted multisensory responses evoked after TMS

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2363 Learning the morphology of brain signals with convolutional dictionary learning

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2364 Detecting 2D magnetic resonance artifacts in neonatal data sets with supervised machine learning

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2365 Separate heart from brain - BCG artifact filtration of EEG-fMRI data using a surrogate approach

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2366 Faster ICA on real neuroimaging data

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2367 LONI-QC, Web-based system for quality control of neuroimaging data: Part 2 – AutoQC and evaluation

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2368 Deconfounding UK Biobank brain imaging data

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fMRI Connectivity and Network Modeling

2369 Functional brain networks reorganize in clinically isolated syndrome: A 1-year longitudinal study

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2370 Dynamic and static resting-state functional connectivity encode complementary behavioral information

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2371 A Model of Instantaneous Phase Transitions for Dynamic Connectivity

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Physically Based Analysis of Brain Connectivity
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Normative pathways of the functional connectome
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Multidimensional scaling reveals intrinsic functional connectivity is organized for prediction
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The bupropion effect on functional connectivity during emotional valence judgement task: IMRI study
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Resting-state functional connectivity is confounded by the hemodynamic response function
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Deep neural network based subject identification of dynamic functional connectivity in resting-state
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Subject-specific functional network modelling simulates spreading effects of focal brain stimulation
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Whole-brain dynamic functional connectivity study (n=985)
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Spatial Topography of Individual-Specific Cortical Networks as a Fingerprint of Human Behavior
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Anti-fragmentation of resting-state fMRI networks with node-wise thresholding
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Nonlinear spatial ICA of resting-state fMRI via space-contrastive learning
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Resting State Networks Alteration in Bipolar Depression and Schizophrenia
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Navigation of brain networks
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Dopaminergic modulation of cortical motor network lateralization
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Unifying Modular and Core-Periphery Structure in Functional Brain Networks
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Robust recovery of functional-network activity using transient-informed spatio-temporal regularization
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Robust Testing of Temporal Dynamics in Resting-State fMRI
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The low dimensional integrative core of cognition in the human brain
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2391 Is deep learning better than classical machine learning for fMRI-based prediction of human behavior?  
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2392 Resting-state Large Scale Functional Networks of Patients with Multiple Sclerosis  
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2393 Functional reorganization of frontoparietal network underlies working memory in normal aging  
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2394 Functional brain connectivity of fMRI phase  
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2395 Neonate Functional Brain Networks and Distinctive Intra-Network Connectivity  
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2396 Dimensionality of intrinsic network connectivity underlies flexible task representation  
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2397 Brain network interactions in children who are predicted by the familial environment  
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2398 A method for assessing temporal variation in whole-brain functional network connectivity  
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2399 Applying Dynamic analysis techniques to compare Neural Mass Simulations with Resting State  
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2400 Functional Networks for Lexical Decision in Bipolar Disorder  
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2401 Shared and Specific Changes of Functional Networks in Schizophrenia and Autism Spectrum Disorder  
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2402 Age-related changes in the functional default mode network across the lifespan  
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2403 Porcupine: a visual pipeline tool for neuroimaging analysis  
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2404 Evidence-based Inference on Resting State Functional Connectivity  
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2405 Task-induced brain state manipulation improves prediction of individual traits  
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2406 Local PC regression and statistical thresholding identify direct connections in a fine-scale network  
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2407 In-between and cross-frequency dependence-based summarization of resting-state fMRI data  
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2408 Investigating Preprocessing Order Effect on the Graph Properties of Human Resting-State fMRI Data  
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2409 Connectomic mapping links functional connectivity of striatum to dopaminergic projections
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2410 Sex differences in Default Mode Network connectivity in basketball players
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2411 Changes in functional connectivity of Insula in cocaine addiction
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2412 Fine-scale ICA Reveals Retinotopic Organization in the Visual Cortex under Natural Vision
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2413 Impact of Fatigue on Functional Connectivity in Multiple sclerosis
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2414 Associating IQ to Brain Networks with Manifold Regression
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2415 Identify functional state transitions using recurrent neural networks from functional MRI
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2416 Multilayer fMRI network switching and dwell-time is related to brain efficiency
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2417* Oxytocin Sex-dependently Increased Intrinsic Cooperation between Default and Salience Network
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2418 Frequency-specific Relationship between Structural and Functional Brain Networks
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2419 Within and between subject variability of effective connectivity: A spectral DCM study
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2420 Resting-state functional brain connectivity: A hierarchical Bayesian mixture model approach
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2421 Input-state-output modelling reveals a neural network driving social decision making
Daniel Shaw1, Kristina Czekóová2, Martin Gajdoš3, Rostislav Staněk2, Jiří Špalek2, Milan Brazydl4
1Department of Psychology and Institute of Neuroscience, Trinity College Dublin, Dublin, Ireland, 2Masaryk University, Brno, Czech Republic, 3Masaryk University, Brno, Czech Republic, 4Central European Institute of Technology, Masaryk University, Brno

2422 Likelihood Based Dynamic Connectivity Analysis using Hidden Semi-Markov Models
Heather Shappell1, Brian Caffo1, James Pekar2, Martin Lindquist1
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Connectivity density influence on path length in Alzheimer’s disease: a multi-study MRI analysis

Ellen Dicks1, Yong He2, Mirza Begi, Geert Bisselis1, Cristian Carmeli1, Guanyu Chen1, Koray Çiftçi, Zhengji Da1, Edwin Dellen2, Martin Dyrbä3, Eric Friedman1, Willem de Haan1, Mahdi Jalilifard1, Joesung Jeong1, Yong Jeong2, Tianzhi Jiang3, Maria Knyazeva4, Dong Young Lee5, Shi-Jiang Li6, Yong Lu7, Paul McCarthy8, Luis Peraza9, David Phillips9, Pradeep Reddy Ramana10, Yael Reymard11, Eun Hyun Seo12, Jorge Sepulcre12,23, Anja Soldan14, John Suk cling15, John-Paul Taylor16, Gao-Jun Teng17, Alle Meije Wink18, Frederik Barkho19,27, Philip Scheltens20, Wiesje van der Flier21, Betty Tijms22, Jürgen Vahl23, Wiesje van der Flier21, Betty Tijms22, Jürgen Vahl23

Sunday, June 18
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Community-informed connectomics of the thalamocortical system in idiopathic generalized epilepsy

Zhenge Wang1, Sara Lariviér2, Qiang Xu3, Reinder Vos de Waal4, Seok-Jun Hong5, Zhongyuan Wang6, Bin Zhu7, Neda Bernasconi8, Andrea Bernasconi9, Bing Zhang10, Zhiqiang Zhang11, Boris Bernhard12

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Spatiotemporal dynamics of resting-state networks improve single-subject prediction of schizophrenia

Akhil Kottaram1, Leigh Johnston1, Eleen Ganella1, Christos Pantelis1, Ramamohanarao Kotagiri2, Andrew Zalesky3

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Brain temporal efficiency study in obsessive-compulsive disorder using dynamic network analysis

Ziyu Meng1,2, Yu Sun1, Qing Fan2, Zongfeng Zhang3, Yao Li1,2

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Predicting dysfunctional aging-related task activations from resting-state network alterations

Ravi Mili1, Brian Gordon2, David Balota2, Michael Cole2

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Predicting functional brain connectivity from anatomic network’s Laplacian eigen-structure

Faras Abdellou1, Orrin Devinsky2, Thomas Thesen3, Ashish Raj4

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Time-varying co-activation patterns of the Dorsal Anterior Insula Across Tasks

Jason Nomi1, Taylor Bolt2, Lucia Uddin3

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45

Time-varying spatial states in resting fMRI

Armin Iraj1, Essar Damaraju2, Aysein Belger2, Judith Ford3, Sarah McEwen4, Daniel Mathalon5, Bryan Mueller6, Godfrey Pearson6, Steven Potkin7, Jessica Turner7, Jatin G Vaidya7, Theodor Van Erp1,2, Vincent Calhoun8,9

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
2437 Glutamate and hormonal concentration modulate connectivity in a network related to social processing
Karsten Specht1,2, Helene Hjelmervik1
1University of Bergen, Bergen, Norway; 2Arctic University Tromsø (UiT), Tromsø, Norway

2438 Functional connectivity profiles underlying musical training and engagement
Nicolas Farruggia1, Amine Echaibi1
1IMT Atlantique, Brest, France

2439 Hidden Markov modelling identifies distinct patterns of task-related network activity in fMRI
Ursula Pérez-Ramírez1, Diego Vidaurre2, Samuel Harrison3, David Morato1, Mark Woolrich2, Stephen Smith2; Eugene Duf2
1Center for Biomatiers and Tissue Engineering, Universitat Politècnica de València, Valencia, Spain; 2OHBA, University of Oxford, Oxford, United Kingdom; 3FMRIB, University of Oxford, Oxford, United Kingdom

2440 Genetic Contributions to the Human Brain Connectome at both Connectivity and Modular Level
Jin Liu1;2,3, Xindi Wang2,3, Xuhong Liao2,3, Yong He1,2
1National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China; 2Beijing Key Laboratory of Brain Imaging and Connectomics, Beijing Normal University, Beijing, China; 3IDG/McGovern Institute for Brain Research, Beijing Normal University, Beijing, China

2441 Dynamic Functional Connectivity Reveals Motor Network Related Aberration in Parkinsons Disease
Hong Zhu1, Juan Huang2, Lifu Deng3, Naying He4, Lin Cheng5, Fuhua Yan6, Shanbao Tong1, Junfeng Sun1, Huawei Ling1
Shanghí Jiao Tong University, Shanghai, China; 2Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China

2442 A Principled Approach to Statistical Connectomics and Mega-Analysis
Eric Bridgeford1, Gregory Kiar2, Vikram Chandrashekhar1, Cencheng Shen1, William Gray Roncal1, Eric Bridgeford1, Gregory Kiar2, Vikram Chandrashekhar1, Cencheng Shen1, William Gray Roncal1
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2443 Anxious brain networks: a coordinate-based activation likelihood estimation meta-analysis of resting
Jie Xu1, Nicolas Van Dam2;3, Hui Ai4, Ruolei Gu5,6, Pengfei Xu2,4,8
1Shenzhen Key Laboratory of Affective and Social Neuroscience, Shenzhen University, Shenzhen, China; 2School of Psychological Sciences, University of Melbourne, Victoria, Australia; 3Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, USA; 4Center for Emotion and Social Neuroscience, Shenzhen University, Shenzhen, China; 5Key Laboratory of Affective and Social Neuroscience, Shenzhen University, Shenzhen, China; 6Department of Psychiatry, University of Chinese Academy of Sciences, Beijing, China; 7Shenzhen Key Laboratory of Affective and Social Cognitive Science, Shenzhen, China; 8Department of Neuroscience, University Medical Center Groningen, University of Groningen, AW Groningen, Netherlands

2444 An entropy function for in vivo predictivity of visual information transfer in human V1 systems
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2445 A Validation of Dynamic Causal Modelling for 7T fMRI
Sungho Tak1, Jihye Noh1, Cheojeong Cheong2, Peter Zeidman3, Adeel Raz1, William Penny4, Karl Friston2
1Korea Basic Science Institute, Cheongju, Korea, Republic of; 2The Wellcome Centre for Human Neuroimaging, University College London, London, United Kingdom; 3University of East Anglia, Norwich, United Kingdom

2446 A Novel Method for Functional Tract Tracing: Infrared Neural Stimulation in Ultra High Field fMRI
Meizhen Qian1, Augix Guohua Xu1, Pei Li1, Jianbao Wang1, Peng Li1, Xuemei Song1, Xiaotong Zhang1, Anna Wang Roe2
1Zhejiang University Interdisciplinary Institute of Neuroscience and Technology, Hangzhou, China; 2State Key Lab of Modern Optical Instrumentation, Zhejiang University, Hangzhou, China

2447 Intrinsic Functional Connectivity of the Pregenual Anterior Cingulate Cortex as Revealed by RS-fMRI
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2448 Functional networks gating the flow of information in cued affective processing
Vanessa Teckentrupl1, Johan Van der Meer2,3,4,5, Viola Borchardt4, Yon Pan1, Monja Neuser1, Luisa Fensky1, Martin Walter1,2,4,5, Nils Krome1,2
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2449 Insights on emerging functional networks in the prenatal connectome
Elise Turk1,2, Marion van den Heuvel4,5, Roel de Heus3, Arie Franx3,4,5, Moriah Thomason1,2, Martin van den Heuvel2
1Department of Neonatology, Division of Woman and Baby, University Medical Center Utrecht, Utrecht, Netherlands; 2Brain Center Rudolf Magnus, University Medical Center Utrecht, Utrecht, Netherlands; 3Merrill Palmer Skillman Institute for Child and Family Development, Wayne State University, Detroit, MI; 4Perinatology Research Branch, NICHD/NIH/DHHS, Detroit, MI; 5Department of Obstetrics, University Medical Center Utrecht, Utrecht, Netherlands; 6Department of Pediatrics, Wayne State University School of Medicine, Detroit, MI; 7Department of Psychiatry, University Medical Center Utrecht, Utrecht University, Utrecht, Netherlands

2450 Graph signal processing for the brain: local versus global network interactions during resting state
Maria Giulia Preti1, Dimitri Van De Ville2
1École Polytechnique Fédérale de Lausanne (EPFL) / Université de Genève, Geneva, Switzerland; 2Department of Informatics, Universiteit van Amsterdam, Amsterdam, The Netherlands

2451 Dynamic causal modelling of resting state fMRI using spectral graph theory
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1The Wellcome Trust Centre for Neuroimaging, University College London, London, United Kingdom; 2Monash Institute of Cognitive and Clinical Neuroscience & Monash Biomedical Imaging, Clayton, Australia; 3NED University of Engineering and Technology, Karachi, Pakistan; 4Wellcome Trust Centre for Neuroimaging, London, United Kingdom

2452 Extracting functional network differences from multiple brain states based on graph theory metrics
Shoya Ishida1, Satoru Hiwa1, Tomoyuki Horiyasu1
1Doshisha University, Kyotanabe-shi, Kyoto, Japan
2453 A new approach to effective connectivity in fMRI using fractional cumulants of the BOLD distribution
Natalia Bielczyk1,2, Alberto Llera Arenas1,2, Jan Buitelaar1,2, Jeffrey Glennon1,2, Christian Beckmann1,2,4
Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Radboud University Nijmegen, Nijmegen, Netherlands, 3Oxford Centre for Functional MRI of the Brain, Oxford, United Kingdom

2454 Thresholding functional connectomes in functional Magnetic Resonance Imaging using Mixture Modeling
Natalia Bielczyk1,2, Fabian Walocha3, Patrick Ebel1, Koen Haak1,2, Alberto Llera Arenas1,2, Jan Buitelaar1,2, Jeffrey Glennon1,2, Christian Beckmann1,2
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2455 Intermittent default mode and frontoparietal connectivity: a disrupted route to the chaos in ADHD
Neda Kaboovand1, Behzad Iravani1, Predrag Petrovic1, Ninni Persson1, Peter Fransson1
1Karolinska Institute, Stockholm, Sweden

2456 Voxel-level dynamic functional connectivity reveals insular cortex organization and interactions
Maria Giulia Preti1, Dimitri Van De Ville2
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2457* Studying Genetic Impact on Resting State Connectivity Using Twin Brains
Arman Kulkarni1, Gyujoon Hwang2, Veena Nair3, Elizabeth Meyerand1,2, Barbara Bendlin4, Maria Giulia Preti1, Dimitri Van De Ville2
1Department of Biomedical Engineering, University of Wisconsin-Madison, Madison, WI, 2Department of Medical Physics, University of Wisconsin-Madison, Madison, WI, 3Department of Radiology, University of Wisconsin-Madison, Madison, WI, 4Department of Medicine, Geriatrics, University of Wisconsin-Madison, Madison, WI

2458 Factors impacting identifiability of the functional connectome
Corey Harri1, Stephanie Noble1, Emily Finn1, Xin Shen1, Dustin Scheinost1, R. Todd Constable1
1Yale University, New Haven, CT, 2Yale University, New Haven, United States, 3National Institute of Mental Health, Washington, DC, 4Department Radiology and Biomedical Imaging, Yale University School of Medicine, New Haven, CT

2459 A New Feature Reduction Method for Improving High Dimensional Brain Connectivity Estimates
Mingi Chang1, Anand Joshi1, Richard Leahy1
1University of Southern California, Los Angeles, United States

2460 Associative Learning using Multi-Scale Plasticity in an Embodied Simulation of the Human Brain
Jessica Dafflon1, Federico Turkheimer1, Robert Leech2, Peter Hellyer1
1King’s College London, London, United Kingdom, 2Imperial College London, London, United Kingdom

2461 Identification of epileptic networks involving connector hubs in mesial temporal lobe epilepsy
Kangjo Lee1,2, Hui Ming Khoo2,3, Jean-Marc Lina4,5, Francois Dubea1, Jean Gotman1, Christophe Gravel1,2,3,5
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2462 Effective Connectivity of Working Memory using DCM: A Preliminary Study on Moderate-TBI Patients
Wen Jia Chai1, Aini Ismafuius Abd Hamid2, Johi Maliin Abdullah2
1Universiti Sains Malaysia, Kota Bharu, Kelantan, 2Center for Neuroscience Services and Research, Universiti Sains Malaysia, Kota Bharu, Kelantan

2463 Identifying brain networks using tensor decomposition of multiple subject asynchronous task fMRI
Jian Li1, Jessica Wisnowski1, Anand Joshi1, Richard Leahy1
1University of Southern California, Los Angeles, CA

2464 Effective Connectivity of the Default Mode Network in Left Temporal Lobe Epilepsy
Cole Cook1, Gyujoon Hwang1, Neelima Tellapragada2, Charine Rivera-Bonet3, Onyekachi Nwoke4, Veena Nair3, Jed Mathis3, Megan Rozman3, Dace Almane4, Courtney Forsythe5, Andrew Nenc3, Rasmus Birn1, B. Douglas Ward3, Rama Maganti3, Liso Conant3, Bruce Herrmann4, Colin Humphries4, Edgar DeYoe1, Manoj Raghavan2, Vivek Prabhukaran2, Jeffery Binder6, Elizabeth Meyerand3
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2465 Slow oscillatory brain activity renders convolution with the hemodynamic response function redundant
Thomas Dorfer1, James Roberts2, Michael Breakspear1, Leonardo Gollo1
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2466 Robustly Estimating the Dynamic Functional Connectivity in fMRI
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2467 From nodes to networks: How node definitions affect connectivity inferences
Dimtri Falco1, Asadur Chowdury2, DeBuschere Sean3, David Rosenberg3, Vaibhav Diwadkar3, Bressler Steven3
1Center for Complex Systems and Brain Sciences, Florida Atlantic University, Hollywood, FL, 2Department of Psychiatry and Behavioral Neuroscience, Wayne State University School of Medicine, Detroit, MI, 3Center for Complex Systems and Brain Sciences, Florida Atlantic University, Boca Raton, United States

2468 An improved multi-task learning method for estimating functional brain networks
Xuetong Wang1, Qiongling Li1,2, Ying Han2, Shuyu Li1,2
1School of Biological Science & Medical Engineering, Beihang University, Beijing, China, 2Beijing Advanced Innovation Centre for Biomedical Engineering, Beijing University, Beijing, China, 3Xuanwu Hospital of Capital Medical University, Beijing, China, Beijing, China

2469 Can we predict the intensity of the effects of brain stimulation?
Leonardo Gollo1, Luca Cocchi2, Luke Heame2, Thomas Dorfer2, James Roberts1, Michael Breakspear1
1QIMR Berghofer Medical Research Institute, Brisbane, Australia, 2University of Queensland, Brisbane, Queensland

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A generative model for inferring whole-brain effective connectivity

Stefan Frässle1, Ekaterina Lomakino2,3, Lars Kasper1,3, Zina Manjaly4, Alex Leff5,6, Klaas Pruessmann3, Papadopoulos2, Chirag Ahuja3, Sunita Simon4, Rajesh Iyer5, Amit Charkrabarty6, Kumaran G Venkatasubramanian1, Gunter Schumann1, Vivek Benegal1

Small-world property of functional connectivity revisited

Jaroslav Hlinka1, David Hartman1, Nikola Jajcay1, David Tomecek2, Jaroslav Tintěra3, Milan Paluš1

Personode: a new MatLab toolbox for ICA components classification and individualized ROI definition

Gustavo Pamplona1,2, Frank Scharnowski3, Sophie Schwartz1, Dimitri Van De Ville1,2, Virginie Sterpenich2, Sophie Schwartz1, Virginie Sterpenich2, Dimitri Van De Ville1,2

Spatiotemporal organization of intrinsic functional brain networks evaluated across different sleep

Anjali Tarun1,2, Virginie Sterpenich2, Sophie Schwartz1, Dimitri Van De Ville1,2

Geneva, Switzerland

Phase Angle Spatial Embedding (PhASE) for studying the Intrinsic Geometry of Functional Connectomes

Zachery Morrissey1, Liang Zhan2, Johnson Keiriz1, Angus Forbes2, Moo Chung4, Olusola Ajilore1, Alex Leow1

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Personode: a new MatLab toolbox for ICA components classification and individualized ROI definition

Gustavo Pamplona1,2, Frank Scharnowski3, Sophie Schwartz1, Dimitri Van De Ville1,2

Genoa, Italy

Influence of motion on resting state functional connectivity depends on atlas size

Jakub Kopáč1,2,3, David Tomecek2,3,4, Jaroslav Tintěra1,2,4, Jaroslav Hlinka1,2

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Classification of fMRI Data in Aphasia Based on Task and Subject

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Leveraging Stratal Connectomic Organisation in ADHD Diagnostics

Myrthe Faber1,2, Koen Hoak1,2, Andre Marquand2,3, Marianne Oldehinkel2, Maarten Mennes2, Jan Buitelaar4, Christian Beckmann1,5

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Teneto: a python package for temporal network theory and neuroimaging

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Individual Resting-State Brain Networks using Multivariate Conditional Mutual Information

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Default Mode Network connectivity in Fibromyalgia differences over patient groups and templates

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2487 Directed functional pathways in the visual system by multivariate nonlinear coherence of fMRI data
Gadi Goelman1, Rotem Don2, Tarek Keadan3
1Hadassah Hebrew University Medical Center, Jerusalem, Israel, 2The Hebrew University, Jerusalem, Israel, 3Hadassah Hebrew University Medical Center, Jerusalem, Israel

2488 Reorganization of the Fronto-Parietal Network During Symbolic and Nonsymbolic Number Processing
Benjamin Conrad1, Eric Wilkey1, Gavin Price1
1Vanderbilt University, Nashville, TN

2489 Sequence and Scanner Effects on Reliability of Resting State Functional Connectivity
James Higgins1, Ajay Kurani1, Yu Fen Chen1, Todd Parrish1
1Northwestern University, Chicago, IL

2490 Differences in resting state connectivity associated with heart rate regulation
Felixberto de la Cruz1, Andy Schumann1, Stefanie Köhler1, Gerd Wagner1, Karl-Jürgen Bar1
1Jena University Hospital, Jena, Germany

2491 The Impact of Stroke on Connectivity Gradients
Saymo Bayrak1, Ahmed Khali1,2, Kersten Vilringer2, Jochen Fiebach1, Arno Vilringer1,2, Daniel Margulies1, Smadar Ovadia-Caro1,2,3
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2492 Hierarchical dynamic functional connectivity: the GUI
Raphael Fernandes Casselb1, Alireza Sojoudi1, Bradley Goodyear1
1University of Calgary, Calgary, Canada

2493 Classification of Gulf War Illness Patients vs Control Veterans Using fMRI Functional Connectivity
Unal Sakooglu1, Mounia Gallo1, Sasanka Bhamidipati1, Kaundinya Gopinath1, Bruce Crosson1, Robert Haley2
1University of Houston – Clear Lake, Houston, TX, 2Emory University, Atlanta, GA, 3University of Texas Southwestern Medical Center at Dallas, Dallas, TX

2494 Machine Learning in Neuroimaging (MALINI): A Matlab-based toolbox for diagnostic classification
Pradyumna Lanka1, D Rangaprakash1, Sai Seshan Gotoor1, Michael Dretsch4, Jeffrey Katz2, Thomas Denney2, Gopikrishna Deshpande1
1University of California, Merced, Merced, CA, 2University of California, Los Angeles, Los Angeles, CA, 3Auburn University, Auburn, AL, 4U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL

2495 A rsfMRI study on inhaled substance abuse in teenagers
Lucero Pacheco1, Nadia Gonzalez-Garcia2, Roberto Velasco-Segura1, Doilet Hernandez2, Pablo Padilla3
1Instituto de Ecología, UNAM, Mexico, Mexico, 2Hospital Infantil de México Federico Gómez, Mexico, Mexico, 3CCADET, UNAM, Mexico, Mexico, 4Posgrado en Psicología, UNAM, Mexico, Mexico, 5IIIMAS, UNAM, Mexico, Mexico

2496 Resting state network interactions correlate with changes in cannabis use
Sebastien Tato1, Arfat Angulo1, Laura Nava1, Israe Alcater1
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2497 Genetic factors influence on connectome fingerprints and functional networks
Fernando Ribeiro1, Wolter Pinoya1, Claudinei Bizoli Jr1
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2498 Brain network alterations due to increasing demands of visuospatial and auditory working memory task
Miriam Kosik1, Karolina Finc1, Kamil Bonno1, Władysław Duch1, Simone Kühn2
1Institute of Physics, Faculty of Physics, Astronomy and Informatics, Nicolaus Copernicus University, Toruń, Poland, 2Nicolaus Copernicus University, Toruń, Poland, 3Max Planck Institute for Human Development, Berlin, Germany

Image Registration and Computational Anatomy
2499 Comparing Approaches for Mapping between MNI Volumetric and FreeSurfer Surface Coordinate Systems
Wu Jianxiao1,2, Gia Ngo3, Douglas Greve4, Tong He1, Bruce Fischl5,4, Simon Eickhoff6,7, B.T. Thomas Yeo1
1ECE, CIRC, SINAPSE & MNP, National University of Singapore, Singapore, Singapore, 2ECE, CIRC, SINAPSE & MNP, National University of Singapore, Singapore, singapore, 3Martinos Center for Biomedical Imaging, MGH, Boston, MA, 4Massachusetts General Hospital and Harvard Medical School, Charlestown, MA, 5CIAL, MGH, Harvard Medical School, Charlestown, MA, 6Institute for Clinical Neuroscience and Medical Psychology, Heinrich-Heine University Düsseldorf, Düsseldorf, Germany, 7Institute for Neuroscience and Medicine (INM-4), Research Center Julich, Julich, Germany

2500 Toward optimized nonlinear deformation algorithms for DBS target regions in human brain MRI
Siobhan Ewert1,2, Andreas Horri1, Francisca Finch1, Ningfei Li1,3, Andrea Kühn1, Todd Herrington2
1Charity Campus Mitte, Berlin, Germany, 2Harvard Medical School, Boston, MA, 3TU Berlin, Berlin, Germany

2501 Knowing Left from Right
Daniel Glenn1, Paul Taylor1, Richard Reynolds1
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2502 Automated patch-based mapping of the transentorhinal cortex
Jin Kyu Gahn1, Yuchun Tang1, Yonggang Shi1
1Laboratory of Neuro Imaging, Keck School of Medicine of University of Southern California, Los Angeles, CA, USA

2503 Design and Application of a Chimpanzee Template for SPM/CAT
Sam Vickery1,2, Robert Dahneke1, Felix Hoffstaedter1, Robert Latzman4, William Hopkins5,6, Christian Gaser1, Simon Eickhoff2
1Research Centre Jülich, INM-7, Jülich, Germany, 2Institute of Systems Neuroscience, Heinrich-Heine University, Düsseldorf, Düsseldorf, Germany, 3University Hospital Jena, Jena, Germany, 4Department of Psychology, Georgia State University, Atlanta, GA, 5Neuroscience Institute and the Language Research Center, Georgia State University, Atlanta, GA, 6Division of Developmental and Cognitive Neuroscience, Yerkes National Primate Research Center, Atlanta, GA

2504 Smoothing and Test-Retest Reliability of Voxel-Based Morphometry in a Healthy Cohort
Joseph Humphries1, Isaac Mordukhovich1, Eric Leuthardt1
1Washington University in St. Louis, St. Louis, MO

2505 Diffeomorphic Metric Image Registration Based on Stationary Velocity
Xianfeng Yang1, Jiaolong Qin2
1Nanjing University of Science and Technology, Nanjing, China, 2Nanjing University of Science and Technology, China
2506 Combined T1-Diffusion MRI Registration
Benjamin Quachtron1, Anand Joshi2, Chitresh Bhushan1, Richard Leahy1, David Shattuck1
1University of Southern California, Los Angeles, CA, 2University of Southern California, Los Angeles, United States

2507 A hemisphere-unbiased iterative surface registration template for neonatal connectome analysis
Sara Larviere1, Reinder Vos de Waal1, Shahin Tavakol1, Seok-Jun Hong1, Boris Berndt1
1Montreal Neurological Institute and Hospital, McGill Brain Imaging Centre, Montreal, QC

2508 Updating AFNIs 3dQwarp for Higher Fidelity Nonlinear Warping
Mitchell Horton1, Thomas Anthony2, Jon Marstrander2, Glenn Brook2, William Monroe2, Chad Burdzyhawk2, Lonnie Crosby1, Frank Skidmore4
1Joint Institute for Computational Sciences, Oak Ridge, TN, 2University of Alabama at Birmingham, Birmingham, United States, 3Joint Institute for Computational Science, Oak Ridge, TN, 4University of Alabama at Birmingham, Birmingham, AL

Methods Development

2509 Brain Wave Activation Modes with CORT-JESTER
Vitaly Galinsky1, Antigona Martinez1, Martin Paulus1, Lawrence Frank1
1UCSD, La Jolla, CA, 2Nathan Kline Institute for Psychiatric Research, Orangeburg, NY, 3Laureate Institute for Brain Research, Tulsa, OK

2510 A probabilistic method for modelling cortical layer composition in sub-voxel resolution
Omi Tomer1, Zvi Baratz2, Ittai Shamir3, Dor Kaptzon3, Assaf Horowitz3, Maya Faraggi4, Daniel Barazany4, Yaniv Assaf4
1Tel Aviv University, Tel Aviv, Israel

2511 Reliable Cluster-Thresholding of fMRI Datasets
Robert Cox1
1NIMH, Bethesda, MD

2512* ASD Brain Biomarker Detection on fMRI Images by Analyzing Deep Neural Network (DNN)
Xiaoqiao Li1, Nicha Dvornek2, Jonathan Zhang3, Junlin Yang1, Pamela Ventola1, James Duncan2
1Biomedical Engineering, Yale University, New Haven, CT, 2Radiology & Biomedical Imaging, Yale School of Medicine, New Haven, CT, 3Child Study Center, Yale University, New Haven, CT

2513 Extracting the palimpsest of brain activity and hemodynamics from fMRI data
James Pang1, Peter Robinson1, Kevin Aquino1, Thomas Lacy2, Mark Schira2
1University of Sydney, Sydney, Australia, 2Monash University, Melbourne, Australia, 3University of Wollongong, Wollongong, Australia

2514* Through Thick and Thin - Measuring Thickness in MRI
Daniel Gian1, Paul Taylor2, Jakob Seiditz1, Michael Gian1, Ciron Liu1, Peter Molfese2, Richard Reynolds1
1Scientific and Statistical Computing Core, National Institute of Mental Health, NIH, Bethesda, MD, 2Scientific and Statistical Computing Core, National Institute of Mental Health, NIH, Bethesda, MD, 3NIH/University of Cambridge, Cambridge, MD, 4University of Cambridge, Cambridge, England, 5NIH, Bethesda, MD

2515 Canonical Spectral Analysis for multivariate data fusion: formulation, extensions and analysis
Kamen Tsvetanov1, Cam-CAN1, Matthias Treder2
1University of Cambridge, Cambridge, United Kingdom, 2Cardiff University, Cardiff, United Kingdom

2516 Generalizability Theory: Demonstrating the Process and its Utility with EEG Measurements
Adrienne Kline1, Calin Gaina Ghirorago1, Dan Pittman1, Brad Goodyear1, Janet Ronsky1
1University of Calgary, Calgary, Alberta

2517 Automatic sulcal labeling using spatio-temporal information of gyification in human fetal brain
Hyuk Jin Yun1, Edward Yang2, Lana Vosung3, Ellen Grant4, Kiho Im5
1Boston Children's Hospital/Harvard Medical School, Boston, MA

2518 Regularized-Ncut: Robust functional parcellation of brain networks
Qinmu Peng1,2, Minhui OuYang1,2, Jaqian Wang2,3, Qinlin Yu1,2, Chenying Zhao2, Michelle Slinger1, Hongming Li1, Yong Fan1, Bo Hong1, Hao Huang2
1The Children's Hospital of Philadelphia, Philadelphia, PA, 2University of Pennsylvania, Philadelphia, PA, 3Tsinghua University, Beijing, China

2519 PsychoPhysiological Interaction of CoActivation Patterns: tracking fMRI network dynamics during task
Lorena Freitas1,2, Thomas A. W. Bolton1,2, Delphine Juchaut1, Anne-Lise Giraud1, Petra Hüppi3, Dimitri Van De Ville1,2
1École Polytechnique Fédérale de Lausanne, Switzerland, 2Faculty of Medicine, University of Geneva, Geneva, Switzerland, 3Department of Neurosciences, University of Geneva, Geneva, Switzerland

2520 Estimation of the full autocorrelation function of fMRI by regularized ReML
Carsten Allefeld1, Jonathan Rosenblatt2, John-Dylan Haynes1
1Bernstein Center and Charité – Universitätsmedizin, Berlin, Germany, 2Ben Gurion University of the Negev, Beer Sheva, Israel

2521 Voodoo-corrected effect sizes without data splitting
Sam Davenport1, Thomas Nichols1
1University of Oxford, Oxford, United Kingdom

2522 An adaptive method to estimate unbiased perceptual thresholds
Chiara Fioravanti1, Diljit Kojal Singh1, Axel Lindner2, Sergio Ruiz3, Ranganatha Sitaram3, Christoph Braun1
1University of Tubingen, Tubingen, Germany, 2Hertie-Institute for Clinical Brain Research, Tubingen, Germany, 3Pontificia Universidad Catolica de Chile, Santiago, Chile

2523 Large-scale Causal Dynamic Network Modeling of fMRI
Xuefei Cao1, Xi Luo1, Björn Sandstede2
1Brown University, Providence, RI

2524 A Toolbox for Defining Standardized Surface Searchlights
Chun Siang Soon1
1Duke-NUS Medical School, Singapore, Singapore

2525 Analyzing gray matter co-atrophy network in Alzheimer's disease: A new meta-analytical approach
Jordi Manuello1, Andrea Nani2,3, Enrico Penna1, Barabara Borroni1, Tommaso Costo1,2, Karina Tatj2
1University of Modena, Modena, Italy, 2University of Cagliari, Cagliari, Italy, 3Bologna University, Bologna, Italy

Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
2526 Quality control of voxel-based morphometry data based on low-rank representations
Albena Vassileva1,3,4, Shahrazad Kharabian1,4, Deepthi Varikuti1,3,4, Felix Hoffstaedter1,3,4, Holger Schwender5, Christian Grefkes1,3,4, Simon Eickhoff1,3,4,5
1Institute of Neuroscience and Medicine (INM-7), Research Center Jülich, Jülich, Germany, 2Institute of Neuroscience and Medicine (INM-3), Research Center Jülich, Jülich, Germany, 3Institute for Systems Neuroscience, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 4Institute of Neuroscience and Medicine (INM-1), Research Center Jülich, Jülich, Germany, 5Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 6Mathematical Institute, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 7Department of Neurology, University of Cologne, Köln, Germany

2527 Cortical and subcortical brain signatures of complex traits
Baptiste Couvy-Duchesne1, Lachlan Strike2, Futoo Zhang3, Yan Holtz4, Margaret Wright4, Naomi Wray5, Peter Visscher5,1, Jian Yang6
1Institute of Molecular Biology, Brisbane, Australia, 2Queensland Brain Institute, Brisbane, Australia

2528 Control of false-positive rates in clustermwise fMRI rates
Zoe Zhang1, Jiangtao Gou2
1Drexel University, Philadelphia, United States, 2Fox Chase Cancer Center, Philadelphia, United States

2529 Investigating small sample bias in CBMA: visualizing study contribution for the ALE algorithm
Freya Acar1, Ruth Seurinck1, Simon Eickhoff1, Beatrisi Moerkerken1
1Ghent University, Ghent, Belgium, 2Institute for Clinical Neuroscience and Medical Psychology, Heinrich-Heine University Düsseldorf, Düsseldorf, Germany

2530 Multi-subject Stochastic Blockmodels with subject varying cluster assignments
Dragana Pavlović1, Ru Kong1, Syi Tang1, B. T. Thomas Yeo2
1ECE, CIRC, SINAPSE & MNP, National University of Singapore, Singapore, Singapore

2531 Accurate autocorrelation modeling largely improves fMRI reliability
Witker Olszowy1, John Aston2, Catarina Rua1, Guy Williams1
1Wolfson Brain Imaging Centre, University of Cambridge, Cambridge, United Kingdom, 2Statistical Laboratory, University of Cambridge, Cambridge, United Kingdom

2532 Estimating Single-trial BOLD Amplitude and Latency in Task-based fMRI Data with an Unknown HRF
Wouter Weeda1
1Leiden University, Leiden, Netherlands

2533* All Resolution Inference: Increasing Spatial Specificity of fMRI with Valid Circular Inference
Wouter Weeda1, Jonathan Rosenblatt2, Livia Finos3, Aldo Solari3, Jelle Goeman2
1Leiden University, Leiden, Netherlands, 2Ben Gurion University of the Negev, Beer Sheva, 3Department of Medical Statistics and Bioinformatics, Leiden University Medical Center, Leiden, Netherlands

2534 Diffusion-adapted spatial filtering of fMRI data for improved activation mapping in white matter
David Abramian Petrosian1, Martin Larsson1, Hamid Behjat1
1Lund University, Lund, Sweden

2535* Matrix-normal models for fMRI analysis
Michael Shvartsman1, Mikio Aoi2, Narayan Sundaram2, Adam Charles1, Theodore Wilke2, Jonathan Cohen1
1Princeton University, Princeton, NJ, 2Intel Corporation, Portland, OR

2536 Detecting and Interpreting Heterogeneity and Publication Bias in Image-Based Meta-Analyses
Thomas Moulin-Sapey6, Camille Maumet2, Thomas Nichols3
1University of Oxford, Oxford, United Kingdom, 2INRIA, Rennes, France

2537* FMReli - a toolbox for the analysis of fMRI reliability
Juliane Fröhner1, Vanessa Teckentrup2, Michael Smolka1, Nils Kroemer1
1Technische Universität Dresden, Dresden, Germany, 2University of Tübingen, Tübingen, Germany, 3Department of Psychiatry and Psychotherapy, University Tübingen, Tübingen, Baden Wuerttemberg

2538 GWSPM: A toolbox for graph wavelet-based statistical parametric mapping
Hamid Behjat1, Martin Larsson1, David Abramian Petrosian1, Leif Sörnmo1, Dimitri Van De Ville2
1Lund University, Lund, Sweden, 2EPFL, Geneva, Switzerland

2539* Encoding models for the Cognitive Neuroscience Literature
Jerome Dockes1, Joan Massich1, Olivier Grisel1, Bertrand Thirion1, Fabian Suchanek1, Gael Varoquaux1
1INRIA, Paris, France, 2Parietal Team, INRIA/Neurospin Saclay, Saclay, France, 3Telecom ParisTech, Paris, France

2540 Quasi-Periodic Pattern in resting state fMRI Cortical and Subcortical Spatiotemporal Dynamics
Behnaz Yousefi1, Sven Diamant2, David Abramian Petrosian1, Hamid Behjat1, Simon Eickhoff1,3,4,5
1Georgia Institute of Technology, Atlanta, GA, 2Emory University and Georgia Institute of Technology, Atlanta, United States

2541 NeuroLIME: A novel tool for explaining the predictions of nonlinear neuroimaging classifiers
Marianne Reddan1, Eshin Jolly2, Tor Wagner1
1University of Colorado Boulder, Boulder, CO, 2Dartmouth College, Hanover, NH

2542 Moving away from ICA in multi-echo fMRI denoising
Daniel Handwerker1, Javier Gonzalez-Castillo1, Dylan Nielson1, Charles Zheng1, Peter Mofese1, Peter Bandettini1
1NIH, NIH, Bethesda, MD, USA

2543 Extrapolating functional MRI data into white matter via structurally-informed graph diffusion
Anjali Tarun1, Dimitri Van De Ville2
1EPFL, Geneva, Switzerland

2544 Exact Permutation Test for Brain Networks
Mao Chung1, Hyekyoung Lee2, Zhan Luo3, Yuan Wang4, Andrew Alexander4, Richard Davidson1, Hill Goldsmith1
1University of Wisconsin, Madison, WI, 2Seoul National University Hospital, Seoul, Korea, Republic of

2545 The dHCP fMRI analysis pipeline enhances the detection of nociceptive brain activity in neonates
Luke Baxter1, Sean Fitzgibbon2, Fiona Moultree1, Sezgi Goksan1, Tomoki Arichi3,4,5, Stephen Smith2, Jesper Andersen3, Eugene Duff1, Rebecca Slater1
1Department of Paediatrics, University of Oxford, Oxford, United Kingdom, 2FMRIB, Wellcome Centre For Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom, 3Centre for the Developing Brain, King’s College London, London, United Kingdom, 4Department of Bioengineering, Imperial College London, London, United Kingdom

2546 Tuesday, June 18, Wednesday, June 20 and Thursday, June 21
Even numbers: 12:45 – 13:45; Odd numbers: 13:45 – 14:45
2546 Localization and uncertainty of TMS effects during motor cortex stimulation
Konstantin Weise1, Ole Nummensen2, Axel Thielscher3, Gesa Hartwigsen1, Thomas Knösche1
1Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 3Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre, Denmark

2547 The Interplay between Sample Size and Replicability of Results in fMRI Studies
Han Bossier1, Ruth Seurinck2, Sonne Roels1, Simone Kuhn1, Beatrijs Moerkerken1
1Department of Data Analysis, Ghent University, Ghent, Belgium, 2Ghent University, Ghent, Belgium

2548 Defining the Habenula in fMRI Studies
Benjamin Elz1, Emily Stern2, Junqian Xu3
1Cahn School of Medicine at Mount Sinai, New York, NY, 2Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY

2549 Error control in fMRI activation using the (nonstationary) Gaussian kinematic formula
Armin Schwarzwald1, Fabian Telschow2, Thomas Nichols3
1University of California, San Diego, La Jolla, CA, 2University of Oxford, Oxford, United Kingdom

2550 Local codes for brain function: predicting task-evoked activity from resting-state
Elvis Dohmatob1, Gaël Varoquaux2, Bertrand Thirion2
1INRIA, University of Paris-Saclay, Paris, France, 2Parietal team, INRIA/Neurospin, Saclay, France

2551 Personalized Resting State: Optimization of TR for subject specific respiration and heart rates
Todd Parrish1, James Higgins1, Ayaj Kurani1, Yu Fen Chen1
1Northwestern University, Chicago, IL

2552 Theoretical evaluation of abnormal brain dynamics of the resting state in schizophrenia
Jiyoung Kang1, Jinseok Eo2, Hae-Jeong Park2
1Yonsei University, Seoul, Korea, Republic of, 2Yonsei University College of Medicine, Seoul, Korea

2553 Brain Volume Estimation from Head CT Images and Detection of Brain Atrophy in Alzheimer’s Disease
Viraj Adduru1, Andrew Michae1
1Geisinger Health System / Rochester Institute of Technology, Lewisburg, PA, 2Geisinger Health System, Lewisburg, PA

2554 Evaluating the efficacy and sensitivity of motion correction strategies for rs-fMRI
Linden Parke1, Ben Fulcher1, Murat Yucel2, Alex Forero2
1Brain & Mental Health Laboratory, Monash University, Melbourne, Victoria, 2Complex Systems Group, University of Sydney, Sydney, Australia

2555 The spatial specific bias induced by normalization on 4D fMRI data
Zhao Qing1, Bin Zhu1, Bing Zhang1
1The Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China

2556 Nonlinear diffusion/structural registration improves the quality of structural connectomes
Christopher Adamson1, Richard Bearer1, Gareth Ball1, Joseph Yang1, Deanne Thompson1, Marc Seal1
1Murdock Children’s Research Institute, Melbourne, Australia

2557 Online MR motion assessment using neuronavigation
Michael Woletz1, Martin Tik1, Matic Princič1, Christian Windischberger1, Tomislav Jordanović2
1Medical University of Vienna, Vienna, Austria

2558 Head motion associated changes in resting-state connectivity may originate from arousal modulations
Yameng Gu1, Xiao Liu1
1Pennsylvania State University, State College, PA

2559 A Versatile and Lightweight fMRI Real-Time Motion Monitoring Tool for Neurofeedback & Standalone Use
Nicolas Gninenko1, Ari Sarfatis2, Yury Koush1, Dimitri Van De Ville1
1EPFL, Geneva, Geneva, 2EPFL, Lausanne, Vaud, 3Yale University, New Haven, CT, 4EPFL, Geneva, Switzerland

Multivariate Modeling

2560 Factors Influencing the Stability of CCA on Neuroimaging and Behavioural Data
Zhandaihong Liu1, Stephen Smith2, Thomas Nichols3
1The Alan Turing Institute, London, United Kingdom, 2FMRIB, Wellcome Centre For Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom, 3University of Oxford, Oxford, United Kingdom

2561 Brain structure predicts polygenic scores for autism and schizophrenia using machine learning
Danai Dimas1, Maria Joao Rosa2, Simone de Jong3, James Cole1, Marinos Kyriakopoulos4, Cynthia Fu5, Mitul Mehta6, Siri Ranilund7
1City, University of London, London, United Kingdom, 2University College London, London, London, 3King’s College London, London, United Kingdom, 4University of East London, London, United Kingdom

2562 Utilising multiple modalities to classify treatment response in patients with painful Osteoarthritis
Jade Jackson1, Duncan Sanders2, Kristina Krause3, Jonathan O’Muircheartaigh4, Andre Marquand5, Steve Williams6, Matthew Howard7
1Department of Neuroimaging, Kings College London, London, United Kingdom, 2University of Sydney, Sydney, Australia, 3University of Cambridge, Cambridge, United Kingdom, 4Department of Clinical Neuroimaging, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 5King’s College London, London, United Kingdom, 6Donders Centre for Cognitive Neuroimaging, Radboud University, Nijmegen, Netherlands, 7Department of Neuroimaging, King’s College London, London, United Kingdom

2563 A novel machine learning approach for characterising multivariate imaging phenotypes
Richard Daws1, Eyvıl Soreq2, Cristina Nombela-Otero2, David Burn3, John O’Brien4, James Rowe5, Roger Barker6, Adam Hampshire7
1Imperial College London, London, United Kingdom, 2Imperial College London, London, UK, 3Hospital Clinico San Carlos, Madrid, Spain, 4University of Cambridge, Newcastle University, United Kingdom, 5University of Cambridge, Cambridge, United Kingdom, 6Cambridge Centre for Brain Repair, Cambridge, United Kingdom, 7Imperial College London, London

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2564 Mapping the biological heterogeneity of psychotic disorders using normative models
Thomas Wolfers1, Ingrid Agartz2, Ole Andreassen3, Torill Ueland4, Jan Buitelaar5, Barbara Franke3, Christian Beckmann1, Lars Westlye6, Andre Marquand7
1Donders Centre for Cognitive Neuroimaging, Nijmegen, Netherlands, 2University of Oslo, Oslo, Norway, 3University of Oslo, Oslo, Norway, 4University of Oslo, Oslo, Norway, 5Donders Institute, Nijmegen, Netherlands, 6Department of Human Genetics, Donders Institute for Brain, Cognition and Behaviour, Radboud Universi, Nijmegen, Netherlands, 7Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, 8Donders Centre for Cognitive Neuroimaging, Radboud University, Nijmegen, Netherlands

2565 Mapping the Impact of Neuroimaging Features of Small Vessel Disease on Post-stroke Cognition
Lin Shi1, Lei Zhao1, Fuki Yeung1, Shenyu Wong1, Kingtao Chen1, Mingfai Tse1, Chunchan Sze1, Yeeching Kwong1, Kachen Li1, Kai Liu1, Jill Abrid1, Winnie Chu1, Vincent Mok2
1The Chinese University of Hong Kong, Hong Kong, China

2566 A data fusion-based denoising method for removing scanner/site variability from multimodal MRI data
Huanjie Li1,2, Staci Gruber1, Stephen Smith1, Scott Lukas1, Moriso Silveri1, Kevin Hill1, William Killgore1, Lisa Nickerson
1McLean Hospital, Harvard Medical School, Belmont, MA, 2Dalian University of Technology, Dalian, China, 3FMIB, Wellcome Centre For Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom, 4Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, 5University of Arizona, Tucson, AZ

2567 Quality Control in Structural Imaging Data across Multiple Sites using Factor Analysis
Zöch Jacokes1, Hossung Kim2, John D. van Horn3, GENDAAR Research Consortium
1University of California, San Diego, Los Angeles, CA, 2usc, Los Angeles, CA, 3USC Institute of Neuroimaging and Informatics, Los Angeles, CA, 4University of Southern California, Los Angeles, United States

2568 Fine-scale individual differences revealed by hyperalignment
Feilong Ma1, J. Swaroop Guntupalli2, Samuel Nastase1, James Haxby1
1Dartmouth College, Hanover, NH, 2Vicarious AI, Union City, CA

2569 A novel entropy based approach to estimate the number of components for ICA in noisy fMRI data
Rajesh Nandy1, Md Abdullah Mamun2
1UNT Health Science Center, Fort Worth, TX, 2UNT Health Science Center, Fort Worth, United States

2570 Stability of the principal gradient across manifold learning techniques
Marcel Falkiewicz1,2, Daniel Margulies3, Simon B.Eickhoff
1Institute of Neuroscience and Medicine, Brain & Behaviour (INM-7), Research Centre Jülich, Jülich, Germany, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

2571* Progress in multivariate analysis in brain imaging with Nilearn
Kamalaker Dadi1, Jerome Dockes1, Andres Hoyos Idrabo1, Julia Huntenburg1, Arthur Mensch2, Alexandre Abraham1, Loic Esteve1, Alexandre Abadie1, Mehdi Rahim1, Elvis Dohmatab1, Danilo Bzdok2, Salma Bougacha1, Elizabeth DuPre1, Darya Chyzhyk1, Michael Eickenberg2, Krzysztof Gorgolewski1, Alexandre Gramfort1, Bertrand Thirion1, Gael Varoquaux1
1Parietal team, INRIA/Neurospin, Saclay, France, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 3RWTU Aachen University, Aachen, Germany, 4University of Pennsylvania, Philadelphia, USA, 5Centre for Addiction and Mental Health, Toronto, ON

2572 Tool for simulation of realistic noise in BOLD fMRI data
Martin Gajdos1, Michal Mikl2, Marie Novoková2, Marek Barton3
1CEITEC Masaryk University, Brno, Czech Republic

2573* A Multivariate Brain Atlas of Genetic Depression Risk
Tim Hahn1, Claes Kaehler2, Ramona Leenings3, Nils Winter1, Daniel Emden1, Nils Opel1, Ronny Redlich1, Jonathan Repple1, Dominik Grategger4, Katharina Dohm5, Katharina Foerster6, Dario Zaremba7, Elisabeth Leehr1, Joscha Böhnlein1, Christian Bürger1, Susanne Meinert1, Verena Enneking6, Walter Heindel1, Harald Kugel1, Volker Arot1, Xiaoyi Jiang1, Bernhard Baume1, Marcella Ritschel8, Bertram Mueller-Myxof9, Udo Dannlowski8
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2574 Voxel level control of the item as fixed-effect fallacy with MELD
Dylan Nielsen1, Adam Thomas2, Per Sederberg2
1Data Science and Sharing Team, National Institute of Mental Health, Bethesda, MD, 2Dept. of Psychology, University of Virginia, Charlottesville, VA

2575 Reconstructing unthresholded statistical maps from peak coordinates using deep neural networks
Krzysztof Gorgolewski1, Tai Yarkoni2, Russell Poldrack1
1Stanford University, Stanford, United States, 2University of Texas, Austin, United States

2576 Structural and Functional Brain Alterations in ADHD: a neuroimaging meta-analysis of 86 studies
Fateme Samee1, Solmaz Soluki1, Vahid Nejati1, Mojtaba Zarei1, Samuele Cortese4,5, Simon Eickhoff1,6, Masoud Tahaqson1, Claudia Eickhoff1
1Institute for Cognitive and Brain Sciences, Shahid Beheshti University, Tehran, Iran, Islamic Republic of, 2Department of Psychology, Shahid Beheshti University, Tehran, Iran, Islamic Republic of, 3Institute of Medical Science and Technology, Shahid Beheshti University, Tehran, Iran, Islamic Republic of, 4Center for Innovation in Mental Health, Academic Unit of Psychology, University of Southampton, Southampton, United Kingdom, 5Faculty of Medicine, Clinical and Experimental Sciences (CNS and Psychiatry), University of Southampton, Southampton, United Kingdom, 6Department of Child and Adolescent Psychiatry, NYU Langone Medical Center, New York, United States, 7Institute of Systems Neuroscience, Medical Faculty, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 8Institute of Neuroscience and Medicine, Brain & Behaviour (INM-7), Research Centre Jülich, Jülich, Germany, 9Institute of Clinical Neuroscience & Medical Psychology, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, 10Department of Psychiatry, Psychotherapy, and Psychosomatics, RWTU Aachen University, Aachen, Germany

2577 T1 Image Synthesis with Deep Convolutional Generative Adversarial Networks
Minseon Kim1, Chihye Han1, Jisuk Park1, Dae-Shik Kim1
1Centre for Addiction and Mental Health, Toronto, ON

Other Methods

2578 Clustering Multiple fMRI Modalities Reveals a Positive to Negative Axis across Participants
Colin Hawco1, Erin Dickie1, Joseph Viviano1, Aristotle Voinoskos2
2Centre for Addiction and Mental Health, Toronto, ON
PET Modeling and Analysis

2579 Comparison of 11C-PBR28 and 18F-GE180 for the quantification of TSPO in the human brain
Peppo Zanotti Fregoni1, Belen Pascual2, Gaia Rizzo2, Meixiang Yu1, Neha Paf, David Beers3, Randall Carter1, Stanley Appel1, Nazem Atassi1, Joseph Mosceti1
1Houston Methodist Research Institute, Houston, TX, 2Houston Methodist Research Institute, Houston, United States, 3InVivo, London, United Kingdom, 4GE Global Research, Schenectady, NY,

2580 Multi-tracer PET-derived network architecture: the implication of partial volume effects correction
Gabriel González Escamilla1, Muthuraman Muthuraman1, Isabellie Miederer1, Michel Grothe1, Sergiu Groppa1
1University of the Johannes-Gutenberg University Mainz, Mainz, Germany, 2German Center for Neurodegenerative diseases, Rostock, Germany

2581 Independent component analyses of task-specific functional PET using a continuous infusion FDG-PET
Shenpeng Li1,2, Shaorn Jarmadar1,3,4, Francesco Sforazzini5, Phillip Ward3,2,4, Jakub Baran6, Malin Premoratine7, Gary Egan1,2, Zhuolin Chen1,2
1Monash Biomedical Imaging, Monash University, Clayton, Australia, 2Department of Electrical and Computer System Engineering, Monash University, Clayton, Australia, 3Monash Institute for Cognitive and Clinical Neuroscience, Monash University, Clayton, Australia, 4Australian Research Council Centre of Excellence for Integrative Brain Function, Clayton, Australia, 5Monash Biomedical Imaging, Monash University, Clayton, Victoria, 6Department of Biophysics, Faculty of Mathematics and Natural Sciences, University of Rzeszow, Rzeszow, Poland

2582 Reduced efficiency of the mGluRs network in FCD: graph-theoretical analysis of [11C]ABP688 PET
Jonathon DuBois1, Sulantha Mathotaarachchi1, Olivier Roussel1, Manuel Porras-Betancourt1, Marie-Christine Gueud2, Jeffery Half3, Gassan Massarweh1, Jean-Paul Soucy1, François Dubeau4, Pedro Rosa-Neto5, Eliane Kobayashi6
1Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital/Harvard Medical, Charlestown, MA, 2McGill Center for Studies in Aging, Douglass Mental Health Institute, McGill University, Montreal, Canada, 3Division of Nuclear Medicine and Molecular Imaging, Johns Hopkins University, Baltimore, DE, 4Department of Neurology and Neurosurgery, Montreal Neurological Institute, Montreal, Quebec, 5PET Unit, McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, Quebec, 6Montreal Neurological Institute and Hospital, Montreal, QC, 7PET Unit, McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, Quebec, 8McGill Center for Studies in Aging, Douglass Mental Health Institute, McGill University, Montreal, Quebec

2583 Connectivity analysis of age-related glucose-metabolic networks
Martin Devrompe1, Stefanie M.A. Willekens1, Koen Van Laere1, Michel Kooi1
1KU Leuven, Leuven, Belgium

PET Modelling and Analysis

2584 Parcellation of the BigBrain Cortex Using an Adapted K-means Clustering Algorithm
Marc Fournier1, Lindsay Lewis2, Alan C. Evans1
1McGill University, Montreal, Canada, 2School of Biomedical Engineering, University of Utah, Salt Lake City, UT

2585 Utilizing the BigBrain as ground truth for evaluation of CIVET & FreeSurfer structural MRI pipelines
Lindsay Lewis1, Claude Lepage1, Alan C. Evans1
1McGill University, Montreal, Quebec, Canada, 2McGill University, Montreal, Quebec, 3McGill University, Montreal, Canada

2586 Image SNR requirements for cortical surface reconstructions from sub-millimeter anatomical data
Natalio Zaretskaya1,2, Jonathan Polimeni3,4,5,6
1Centre for Integrative Neuroscience, University of Tuebingen, Tuebingen, Germany, 2Department of Psychology, University of Tuebingen, Tuebingen, Germany, 3Max Planck Institute for Biological Cybernetics, Tuebingen, Germany, 4Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, United States, 5Department of Radiology, Harvard Medical School, Boston, MA, 6Harvard-MIT Division of Health Sciences and Technology, Massachusetts Institute of Technology, Cambridge, MA

2587 Local Intensity Guided Spatially Adaptive Thresholding of White Matter Lesion Probabilities
Vaanathi Sundaresan1, Mark Jenkinson1, Giovanna Zamboni1, Ludovica Griffanti1
1FMRIB, Wellcome Centre For Integrative Neuroimaging, University of Oxford, Oxford, United Kingdom

2588 A platform for deep learning and citizen science in service of large-scale neuroanatomy
Anisha Keshavan1, Dylan Nielsen2, Adam Thomas3, Ariel Rokem4, Jason Yeatman5
1University of Washington, Seattle, WA, 2NIMH, Bethesda, United States, 3Data Science and Sharing Team, National Institute of Mental Health, Bethesda, MD, 4University of Washington, Seattle, United States, 5University of Washington, Washington, United States

2589 Bayesian Convolutional Neural Network Based Nonhuman Primate Brain Extraction in Fully 3D Context
Gengyan Zhao1, Fang Liu1, Jonathan Oler1, Mary Meyerand1, Ned Kailin1, Rasmus Birn1
1University of Wisconsin – Madison, Madison, WI

2590 Multi-Scale Intrinsic Functional Connectivity of the Striatum in Developing Adolescents
Shady El Damaty1, Goldie McQuaid1, Diana Fishbein2, John VanMeter3
1Georgetown University Medical Center, Washington, DC, 2The Pennsylvania State University, University Park, PA

2591 Automatic refinement of FreeSurfer outputs: white matter segmentation and control points
Christopher Adamson1, Richard Beare1, Gareth Bailey1, Marc Seal1
1Murdock Children’s Research Institute, Parkville, Australia

2592 Parallelization of Ward’s algorithm for fast clustering of fMRI datasets
Mélodie Angeletti1, Jean-Marie Bonny1, Franck Dufi1, Jonas Koko1
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2593 Model-free analysis of fMRI brain responses to food tastes using fast clustering
Mélodie Angeletti1, Jonas Koko1, Franck Dufi1, Jean-Marie Bonny1
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2594 Comparison of surface and volume-based multi-atlas segmentation of the Hammersmith brain atlases
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2595 Resting-state fMRI Segmentation in Spatio-temporal Domain Using Supervoxels
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MODELING AND ANALYSIS METHODS

PET Modeling and Analysis

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The effect of outliers and their exclusion on resting-state connectivity-based parcellation
Niels Reuter1,2, Sarah Genoni1, Shahrazad Kharabian1,2, Tobias Kalenscher1, Felix Hoffstaetter1, Rainer Goeber1,3, Simon Eickhoff2, Kaustubh Patil2
1Institute of Neuroscience and Medicine (INM-7), Research Centre Jülich, Jülich, Germany, 2Institute of Systems Neuroscience, Heinrich-Heine University, Düsseldorf, Germany, 3Institute of Experimental Psychology, Heinrich-Heine University, Düsseldorf, Germany, 4Department of Cognitive Neuroscience, Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, 5Maastricht Brain Imaging Centre, Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, 6Department of Neuroimaging and Neuromodeling, Netherlands Institute for Neurosciences, an Institute of the Royal Netherlands Academy of Arts and Sciences (KNAW), Amsterdam, Netherlands

Infant Cerebellar Tissue Segmentation by Densely Connected Convolutional Network
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Co-Activation Based Parcellation of the Human Left and Right Posterior Cingulate Cortex
Jessica Busler4, Julio Yanes1, Meredith Reid1, Jennifer Robinson1
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Half-UNet for Skull Stripping of Infant Brain MRI
Qian Zhang1, Li Wang1, Weili Lin1, Dinggang Shen1
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Delineating intra-thalamic nuclei in vivo using edge detection on track density imaging
Lingzhong Fan1, Kaixin Li1, Zhengyi Yang2, Nianming Zuo3, Chuyang Ye1, Tianzi Jiang1
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Evaluation of Brain Tumor Segmentation Package for Clinical Data
Anand Kadumber1, Ben Wagner1, Marco Pinho1, Joseph Maldjian1, Albert Montillo1
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R-fMRI Reproducibility: on the Impact of Correction Strategies and Sample Size
Xiao Chen1,2, Bin Lu1, Chao Gan Yan1,2,3,4
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Dynmical properties of brain regions interaction at rest
Alessandra Griffo1, Jokub Vohyražek1, Patric Hagmann2, Martin van den Heuvel1
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Individual fMRI Subspaces enhance fMRI-behavioral Prediction
Rajan Kashyap1, Ru Kong1, Jingwei Li2, B. T. Thomas Yeo1
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Regional Variability and Neural Basis of Temporal Concordance of Dynamic Brain Networks
Le Li1, Bin Lu2, Chao-Gan Yan1
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Multi-center resting-state fMRI comparison reveals common functional networks in the mouse brain
Jacoas Grandjean1, Carola Canella1, Cynthia Ancoerts2, Gilebru Ayranc1, Ludovico Coletta2, Daniel Gallino1, Natalia Goss1, Neele Hübner1, Silke Kreitz1, Francesca Mandino1, Anna Mechling1, Sandra Strobel1, Tong Wu1, Isabel Wank1, Ling Yin Yeow1, Mallor Chakravarty1, Wei-Tong Chang1, Dominik von Elverfeldt1, Laura-Adele Harsan1, Andreas Hess1, Georgios Keliris1, Markus Rudin1, Alexander Sartorius1, Tianzi Jiang1, Annemie Van der Linden1, Marleen Verhoye1, Wolfgang Weber-Fahr1, Nicole Wenderoth1, Valerio Zerbi1, Alessandro Gazzelli3,4
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Resting-state functional connectivity predicts performance and subjective game experience
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Associations between Resting Brain Entropy and Fractional Amplitude of Low-frequency Fluctuation
Donghui Song1, Da Chang1, JIan Zhang1, Qiuj Ge1, Yuefang Zhang2, Ze Wang1,2
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Where is my mind? Metacognitive insight into topographical memory linked to mind wandering
Charlotte Murphy1, Giulia Poroio1, Hao-Ting Wang2, Mladen Sormaz2, Sarah Garfinkel1, Daniel Margules3, Tom Hartley1, Beth Jefferies1, Jonathan Smallwood2
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Characterizing whole-brain resting-state activity using recurrence plots and networks
Taylor Bolt1, Jason Nomi1, Lucina Uddin1
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Stomach-brain coupling reveals a novel, delayed connectivity resting-state network
Ignacio Rebollo1, Anne-Dominique Devauchelle1, Benoit Beranger2, Catherine Tallon-Baudry1
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Combined Utility of Resting State and Task fMRI Neural Features in Predicting Disorder Severity
Samantha Fede1, Erica Grodin1, Reza Momenan1
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2627 Brain Network Dynamics are Hierarchically Organised in Time
Diego Vidaurre1, Stephen Smith3, Mark Woolrich1
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2628 Simultaneous BOLD-fMRI/FGD-PET study of resting state glucose utilization networks in healthy humans
Shenpeng Li1,2, Sharna Jamaoda1,2,4, Phillip Ward1,2,3, Francesco Sforazzini1, Jakub Baran1,2, Malin Premoratine1, Zhaoxin Chen1,2, Gary Egan1,2
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2629 Altered amplitude of low-frequency fluctuation in patients with transient ischemic attack
Li Lingyu1,2,2, Yulin Song3, Yu Han4, Chengshu Zhou1, Dan Zhou5, Fuding Zhang3, Qiming Xue5, Hao-Ting Wang1, Danilo Bzdok2, Daniel Margulies3, R. Cameron Craddock4, Michael Milham5, Jonathan Lisinski6, Stephen LaConte6
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2630 A More Unique Brain Predicts Better Emotional Experiences
Yangyang Yi1, Liman Man Wai1,2, Yuxin Wang1, Junji Ma1, Xiu Ya3, Zhengjia Dui1
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2631 Hemispheric bias in resting state EEG and fMRI is related to approach/avoidance behaviors and BMI
Filip Moris1, Elena Cesnaitė1, Michael Goeble1, Isabel García García2, Lieneke Janssen1, Jana Kubé1, Deniz Kumral1, Keyvan Mahjoory1, Nora Mehl1, Anne Schrimpf1, Daniel Margulies1, Jane Neumann1, Vladimir Nikulin1, Arno Villringer1, Annette Horstmann1, 2Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, 3McGill University, Montreal, Canada

2632 Functional specificity of resting-state fMRI signals
Yul-Wan Sung1, Yosuke Kawach1, Seiji Ogawa1
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2633 Decomposing Self-Reports of Experience at Rest with Brain Connectivity Reveals Links to Intelligence
Hao-Ting Wang1, Danilo Bzdok2, Daniel Margulies3, R. Cameron Craddock4, Michael Milham5, Beth Jeffries5, Jonathan Smallwood6
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2634 Network localization of acquired prosopagnosia
Alexander Cohen1, Louis Soussand2, Sherryse Corrow3, Jason Barton4, Michael Fox5
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2635 Blood flow and other contributions to the global signal: a story of inequality and consequences
Nigel Coanbier1, Lucina Uddin2, Russell Poldrack3, Vince Calhoun4, Daniele Marinazzo1
1Ghent University, Ghent, Belgium, 2Department of Psychology, University of Miami, Miami, FL, 3Stanford University, Stanford, United States, 4Mind/UNM, Albuquerque, NM

2636 Examining Replicability of Resting State Functional Connectivity in Tinnitus Patients
Sara Schmid1, Fatima Husain2, Benjamin Zimmermann1, Rafay Khan1, Yihsin Tsai3, Carlos Esquivel1, Charly Lev3, Pedro Ramos2, Elsa Camou2, Paul Sherman2
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2637 Independent component analysis of resting state fMRI: exploring ultra-fast data acquisition
Danilo Mozero1, Christoph Rettenmeier1, Victor Stenger1
1University of Hawaii, Honolulu, HI

2638 Quasi-periodic patterns contribute to functional connectivity differences in individuals with ADHD
Anzar Abbas1, Yasmine Bassil1, Shella Keilholz2
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2639 Quasi-periodic patterns contribute to FC differences between adolescents and adults
Anzar Abbas1, Yasmine Bassil1, Shella Keilholz2
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2640 Frequency-dependent spontaneous oscillation difference between eyes closed and eyes open states
Yihe Weng1, Xiaojin Liu1, Luxiong Li1, Fengguang Xia2, Huiqing Hu2, Xiaoyan Wu1, Huiyuan Huang3, Shuai Wang4, Qinyuan Chen4, Bolin Cao4, Ruiwang Huang2
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2641 From fMRI to surface measurements: frameworks for optimal surface measurement configurations
Mark Tenzer1, Jonathan Lisinski1, Stephen LaConte1
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2642 FMRI total neuronal activity maps for 1.5T MRI
Camilo Salomón1, Athena Demertzis2, Steven Laureys1, Andrea Sodd1, Francisco Gómez Jaramillo1
1Universidad Nacional de Colombia, Bogotá, Colombia, 2University of Liege, Liege, Belgium, 3Western University, London, Canada

2643 Impact of global normalization on resting state fluctuation amplitude is accounted for by motion
Pei-Wen Zhang1, Shi-Yu Liu1, Dongqiang Liu1
1Emory University, Atlanta, United States

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Univariate Modeling

2653 Choosing a practical and valid Image-Based Meta-Analysis

Camille Maumet1, Thomas Nichols2
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2654 Validity of summary statistics-based mixed-effects group fMRI

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1University of Rennes, Inria, CNRS, Inserm, IRISA, Rennes, France, 2Oxford Big Data Institute, Nuffield Department of Population Health, University of Oxford, Oxford, United Kingdom

MOTOR BEHAVIOR

Brain Machine Interface

2655 Accurate reconstruction of the handwriting digit stimuli based on human fMRI using CapsNet

Kai Qiao1, Chi Zhang1, Linyuan Wang1, Bin Yan1, Jian Chen2, Lei Zeng1, Li Tong4
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2656 Investigating the neural mechanism of brain self-regulation with simultaneous fMRI-EEG

Rongganath Sitaram1, Pradyumna Sepulveda1, Abbasheik Bhutada3, Rafael Torres1, Cristian Tejos1, Sergiu Riz1
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2657 Differences between neural representations of bimanual and unimanual movements in human EEG

Masaki Kato1, Sotaro Shimada2
1Meiji University, Kawasaki, Japan

2658 Hybrid EEG-Eye Tracker based high speed SSVEP BCI speller

Malik Muhammad Naeem Mannan1, Muhammad Ahmad Kamran1, Myung Jeong1
1Pusan National University, Busan, Korea, Republic of

2659 Increasing classification outcome in BCI through simultaneous EEG-fNIRS and Deep Learning classifier

Antonio Chiarelli1, Pierpaolo Croce2, Arcangelo Merla2, Filippo Zappasodi3
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2660 Use of Brain-computer Interfaces for Chronic Stroke rehabilitation

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Pre-training learner activity is related to real-time fMRI neurofeedback learning success: Amelie Haugg1, Ronald Stadka1, Matthias Kirschner1, Marcus Herdener1, Yury Koush2, Kathrin Cohen Kodosh3, Catharina Zich1, Jeff Macinnes1, R. Alison Adcock4, Kathrin Dickerson5, Nan-Kuei Chen3, Kimberley Young6, Jerzy Bodurka7, Shuxiu Yoo8, Benjamin Becker9, Tibor Auer10, Renate Schweiter10, Kirsten Emmer11, Sven Haller11, Dimitri Van De Ville11, Maria Laura Biefer11, Dong-Youl Kim12, Jong-Hwan Lee12, Theo Marinos9, Megumi Fukuda9, Bettina Sorger2, Tabea Kamp2, Marina Papouts23, Sook-Lei Liew2, Moartje Spetter2, Ralf Veit1, Nikolaus Weiskopf1, Frank Scharnowski1

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Ignorance movements from intracranial EEG using deep convolitional neural network: Jiri Hammer1,2, Robin Schirmeister1,2, Pavel Krsek3, Martin Tomasek3, Petr Marusic3, Andreas Schulze-Bonhage1, Frank Hutter3, Tonio Ball2

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State-Dependent Effect of tACS on the Motor System: action observation matters: Matteo Feurta1, Evgeny Blagovechensky2, Maria Nazarova2, Anna Lebedeva4, Dario Pozdeev2, Maria Yurevich2, Vladim Nikulin4, Simone Ross5

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Sightedness and blindness influence subjective sensory experiences during motor imagery: Kaoru Aramya1, Tomoyo Morita1, Satoshi Hirose1, Tsyoshi Ikegami1, Masaya Hirashima2, Iuchi Naito2, CINet NICT, Osaka, Japan, 3Osaka University, Osaka, Japan

The effect of aging on bilateral coordination: an EEG study: Pei-Cheng Shih1, Christopher Steele1, Vadim Nikulin1, Arno Villringer1,3, Bernhard Sehm1,3

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Rehabilitation of walking in brain injured patients: a clinical and fMRI study: Marzio Schiffino1, Marina Zettin2, Gianfranco Lamberti3, Silvia Sironi4, Guido Belforte4, Giuliano Geminiani1, Katiuscia Sacco4

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Motor Planning and Execution

Isolating Right and Left Imagined Stepping Using EEG: Adrienne Kline1, Dan Pittman1, Brad Goodyear1, Janet Ronsky1

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Movement (Re-)planning Interferes in the Maintenance Process of Working Memory: An ERP Study: Rumeysa Gunzur Can1, Dirk Koester1, Thomas Schack1

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Can mirror neuronal system predict the efficiency of motor learning: Evgeny Blagovechensky2, Roman Solodkov1, Tamara Banjevi2, Matteo Feurta1, Vadim Nikulin3, Maria Maria Nazarova2

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Predictability of stimulus-response pairing modulates automatic imitation ‘mirror’ response: Megan Campbell1, Michael Breakspear2, Ross Cunningham3

1The Queensland Brain Institute, Brisbane, QLD, 2QIMR Berghofer, Brisbane, Australia, 3Queensland Brain Institute, Brisbane, Australia

Motor Behavior Other

Motor fatigability results from changes in mesial versus lateral premotor-motor interactions: Marc Böckinger1, Rea Lehner1, Felix Thomas1, Samira Hananim1, Corina Ryf1, Joshua Balsters2, Nicole Wenderoth2

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Reward decreases motor fatigability by increasing neural activity within the motor network: Rea Lehner1, Marc Böckinger1, Samira Hananim1, Joshua Balsters2, Nicole Wenderoth2

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Sightedness and blindness influence subjective sensory experiences during motor imagery: Kaoru Aramya1, Tomoyo Morita1, Satoshi Hirose1, Tsyoshi Ikegami1, Masaya Hirashima2, Iuchi Naito2, CINet NICT, Osaka, Japan, 3Osaka University, Osaka, Japan

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Mapping Cortical Brain Asymmetry in 17,141 Healthy Individuals Worldwide via the ENIGMA Consortium
Xiang-Zhen Kong1, Samuel Mathias2, Tulio Guadalupe3, ENIGMA Laterality Working Group3, Karolina Schizophrenia Project (KoSP)3, David Glahn3,4, Barbara Fratkin3,4, Fabrice Crivello5, Nathalie Tzourio-Mazoyer6, Simon Fisher7,8, Paul Thompson9, Clyde Franks10
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The role of auditory cortex morphology for language learning ability and musicality
Sabrina Turk1, Peter Schneider1, Annemarie Seither-Preisler1, Susanne Reiterer1
1Karl Franzens University Graz, Graz, Austria, 2Department of Neuroradiology, University Hospital Heidelberg, Heidelberg, Germany, 3Centre for Systematic Musicology, Graz, Austria, 4Department of Linguistics, University of Vienna, Vienna, Austria

A patch-based segmentation approach for automatic sulci recognition
Léonie Borne1, Jean-François Mangin2, Denis Rivière1
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The neuroanatomy of Autism Spectrum Disorder in 22q11.2 Deletion Syndrome
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Parcelling auditory cortex based on resting-state functional connectivity
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Cortical layer analysis through spherical volumetric sampling of low resolution T1 weighted images
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Cortical thickness and age-related thinning jointly reveal spatial patterns of granularity
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Cortical microstructures at birth predict neurodevelopmental outcome at 2 years of age
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Nested cortical organisation models for human and non-human primate inter-species comparisons
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Comparison of the insular cortex in human and macaque based on anatomical connectivity
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Brain Structure Differences between Chinese and Caucasian Cohorts: a Comprehensive Morphometry Study
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Suicidal ideation is associated with diminished cortical volume in a sub-clinical population
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Transmitter receptors and the laminar organization of the human primary motor cortex
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Evaluation of parcellation of cortex based on cortical thickness and myelin in non-human primates
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Microstructure profile covariance reflects the principal gradient of functional connectivity
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Mapping Cortical Brain Asymmetry in 17,141 Healthy Individuals Worldwide via the ENIGMA Consortium
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2705 Longitudinal cortical thickness change after mild traumatic brain injury
*Jie Song*, *Jie Li*, *Lixiang Chen*, *Xingai Lu*, *Huiyuan Huang*, *Chen Niu*, *Qiyuan Chen*, *Yihe Weng*, *Huiqing Hu*, *Shuai Wang*, *Jianping Ding*, *Ruixiang Huang*
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2706* Neuroimaging Correlates of Maternal Smoking Later in Life: Analysis of the UK Biobank Cohort
*Lauren Salimeno*, Alyssa Zhu, Brandony Riedel, Christopher Ching, Victoria Knight, Arvin Sarem, Faisal Rashid, Sophia Thomopoulos, Marc Harrison, Anjanabhargavi Ragothaman, Sarah Medland, Paul Thomson, Neda Jahanshahi
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2707 Structural Connectivity-Based Parcellation of the Claustrum
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2708 Linking structural and functional parcellation of Broca’s area
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2709 Investigation of Sulcal Neuroanatomy and Relative Relationships using Spatial Gradients
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Cortical Cyto- and Myeloarchitecture

2710 The relationship between digit areas and myelin distribution in human primary somatosensory cortex
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2711 1D convolutional neural networks for profile-based classification of cytoarchitectonic areas
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2712 Reproducible Activity in the Precuneus During Resting-State and Auditory Stimulation
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2713* BigBrain: 1D convolutional neural networks for automated segmentation of cortical layers
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2714* Scalable cytoarchitectonic characterization in 3D of large optically cleared human neocortex samples
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Neuroanatomy Other

2715 Microstructural analysis of agranular, dysgranular and granular organization of the insular cortex
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Normal Development

2716 Lower perspective-taking in adolescents is associated with the functional connectivity of the dmPFC
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2717 Statistical shape analysis of developmental changes in the corpus callosum during infancy
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2718 Brain morphometric growth charts
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2719 Outward Subcortical Shape Variation Associated with Higher Socioeconomic Status in Adolescents
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Subcortical Structures

2720 Directional Asymmetry of Habenula in Healthy Young Adults
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2721 The reliability of brainstem activation and dependence on physiological noise correction method
Eva Matt1, Florian Fischmeister1,2, Ahmad Amini1, Simon Robinson1, Alexandra Weber1, Thomas Foki1, Elke Gizewski1, Roland Beisteiner1
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2722 Cerebellar organization is sensorimotor-fugal, and lobules VIII - IX share hierarchical principles
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2723 Characterization of Cerebellar Functional Organization in Individual Humans
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2724 3D reconstruction of the BigBrain thalamus volume with anatomical correlation with
Investigating presynaptic serotonergic regulation of amygdala reactivity using PET and fMRI
Georg Kranz1, Andreas Hahn1, Christoph Kraus1, Marie Spies1, Verena Pichler1, Markus Mitterhauser1, Wolfgang Wadsak1, Christian Windschberger1, Siegfried Kasper1, Rupert Lanzenberger1
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2725 High-dimensional Functional Segregation of the Human Thalamus
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2726 Comparison of structural connectivity of the claustrum: 3T vs 7T

2727 Investigating the functional network topology of attention using fMRI, graph theory and pupillometry
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2728 Investigating prensynaptic serotonergic regulation of amygdala reactivity using PET and fMRI
Georg Kranz1, Andreas Hahn1, Christoph Kraus1, Marie Spies1, Verena Pichler1, Markus Mitterhauser1, Wolfgang Wadsak1, Christian Windschberger1, Siegfried Kasper1, Rupert Lanzenberger1
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2729 Predicting response latency of human V1 from microstructural properties along the optic radiation
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2730 Ultra high-resolution mapping of vertical occipital fasciculus in the vervet monkey brain
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2731 Cortical Tract Length - a novel approach to structural brain organization
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2732 The Association of Regional White Matter Lesions with Cognition in Older Individuals
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2733 Local and global abnormalities of the structural connectome in aspartylglucosaminuria
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2734 Heritability of Hierarchical Brain Structural Network
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2735 Gene expression and cortico-cortical connectivity in human cerebral cortex
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2736 Tract-specific Impact of White Matter Hyperintensities on Functional Connectivity in UK Biobank Data
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2737 Measuring the Axonal G-Ratio Distribution in the Human Optic Chiasma Region with Histology ex Vivo
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2741 Assessment of White Matter Microstructure in Cervical Myelopathy Using Diffusion Spectrum MRI
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2742 In Vivo Manganese Tract Tracing of Macaque Saccadic Eye Movement Circuitry: Comparison with DWI
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2743 Decreased structural brain network integration in juvenile neuronal ceroid lipofuscinosis
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2744 Interhemispheric Connectivity of the Human Brain
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2745 Perception and Attention: Auditory/Tactile/Motor
Attention: Auditory/Tactile/Motor
2746 Reduced false positive connection in tractograms using joint structure-function filtering
Matteo Frigo1, Guillermo Galardo-Diez2, Isa Costantini1, Alessandro Daducci1,2, Demian Wassermann3, Bachir Derfel1, Samuel Deslauriers-Gauthier4
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2747 Comparison of White Matter Tracts Between Macaque and Human Brain
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2748 GITA: Group-wise Tractogram Analysis
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2749 Effect of the central sulcus morphology on the underlying U-bundle organization
Miguel Guevara1, Zhong Yi Sun2, Pamela Guevara3, Denis Rivière4, Cyril Poupon5, Jean-François Mangin6
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2750 Segmentation of White Matter Tractograms Using Fuzzy Spatial Relations
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2751 Computational modelling suggests mechanism of epileptogenesis in idiopathic generalised epilepsy
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2752 Somatosensory attention boosts motor outcomes in movements associated with pain
Amanda Claauwet1, Stijn Schouppe2, Emilie Crocco1, Jessica Van Oosterwijk4, Lieven Danneels2, Stefaan Van Damme3
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2753 Reduced behavioural and neural dynamics of temporally cued motor preparation in Parkinson’s disease
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2754 Interhemispheric Asymmetry Differences in ADHD Youth: A reproducibility study
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Attention: Visual

2756 | The Electrophysiological Correlates of Detection without Localisation in a Change Blindness Task
| Catriona Scrivener1, Asad Malik1, Jade Marsh1, Michael Lindner1, Etienne Roesch1
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2757 | Hemispheric Asymmetries in Functional Connectivity in Children correlate with Visual Attention
| Zeus Gracia Tabuenca1, Martha Moreno1, Fernando Barrios1, Sarael Alcauter2
| Universidad Nacional Autónoma de México, Queretaro, Mexico

2758 | Prismatic Adaptation Modulates Inter-hemispheric Balance, Inducing Change in Visual Field Coverage
| Seilene Schintu1,2, Edward Silson3, Zaynah Alam3, Eric Wassermann3, Sarah Shomstein3
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2759 | Lateralized modulation of posterior alpha and theta oscillations in children with ADHD
| Jialiang Guo1,2, Chenguang Zhao1,2, Xiaoguang Luo3,4, Dongwei Li1,2, Li Sun3,4, Yan Song1,2
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2760 | Functional Dissociation of Left and Right Anterior Insula in Anticipation
| Yoshimi Ohgami1, Yasunori Kotani2, Nobukiyo Yoshida3, Akira Kunimatsu4, Shigeru Kiyu5, Yusuke Inoue6
| 1Tokyo Institute of Technology, Meguro, Tokyo, 2Tokyo Institute of Technology, Tokyo, Japan, 3The University of Tokyo, Tokyo, Japan, 4International University of Health and Welfare, Ohtawa, Japan, 5Kitasato University, Sagamihara, Japan

2761 | Subcortical network connectivity correlates with one of multiple components of attention
| Varsha Sreenivasan1, Devanjan Sridharan1
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2762 | Time-on-task increases the costs of attentional effort: a simultaneous fMRI and pupillometry study
| Shin Massaro1, Julian Lim1, Karen Sammler1, Michael Chee1
| 1Duke-NUS Medical School, Singapore, Singapore

2763 | Induction of neural noise in the left Frontal Eye Field improves conscious visual perception
| Chloë Stengel1, Julia Amengual1, Marine Vernet1, Antoni Valero-Cabre1,2
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2764 | Temporoparietal junction and reorienting of attention in the feature domain
| Katarzyna Jurewicz1, Katarzyna Paluch1, Andrzei Wrobel1
| 1Nencki Institute of Experimental Biology, Polish Academy of Sciences, Warsaw, Poland

2765 | The Effects of Binocular Disparity and Masking Type on Visual Search: An Fnirs study
| Hejun Liu1, Liang Li2, Feng Zhang3, Haibo Yang1
| 1Tianjin Normal University, Tianjin, China, 2School of Psychological and Cognitive Sciences, Beijing Key Laboratory of Behavior and Mental Health, Beijing, China, 3Joint National Normal University & Department of Psychology National University of Singapore, Singapore, Singapore

2766 | Cortical sampling of visual space is modulated by both spatial and feature-based attention
| Doan van Es1, Jan Theeuwes1, Tomas Knapen2
| 1Vrije Universiteit Amsterdam, Amsterdam, Netherlands, 2Spinoza Centre for Neuroimaging, Amsterdam, Netherlands

2767 | Disparity Binocular Unmasking Effect: An ERPs Study
| Qiu-nan Huang1, Liang Li2, Hai-bo Yang2
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2768 | Attention and expectation meet where mistakes are made
| Martijn Barendregt1, Heleen Slagter1, Steven Schole1, Tomas Knapen1
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2769 | Behavioural strategies and top-down alpha power modulation in a singleton search task
| Katarzyna Paluch1, Katarzyna Jurewicz1, Andrzei Wrobel1
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2770 | Physiological changes during gaze perception: bilateral pSTS network and relation to eye movements
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Chemical Senses: Olfaction, Taste

2771 | Novel measurement of olfactory bulb in healthy individuals using EEG
| Behzad Iravani1, Armin Arshamian1, Johan Lundström2,3
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2772 | Interaction between salty taste and retronasal odor perception: an fMRI study
| Masanori Matsura1, Aya Namba1, Hidetoshi Sadach1, Junji Nakamura2
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Consciousness and Awareness

2774 Human Repeated Pregnancy Loss is Associated with Altered Olfaction
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2777 Olfactory vs visual memory training in older adults: Cortical and cognitive effects
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2778 Structural biomarkers of awareness and wakefulness in disorders of consciousness
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2780 Functional network segregation with somatosensory awareness
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2781 Low-density EEG recordings are good enough to compute inverse solutions in conscious subjects
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2782 From Attention to Perception: A Dynamic Functional Connectivity Study in Experienced Meditators
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2783 Mindful driving: Detecting driver attention and distraction using fNIRS
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2784 Intra-individual variation in graph theoretical properties of functional networks during meditation
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2785 Functional network segregation with somatosensory awareness
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2786 Time-varying properties of connectivity are not a marker of propofol-induced loss of consciousness
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2787 FNIRS study of attentional states based on dynamic functional connectivity analysis
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2788 Command Following Assessment and Communication BCI for Locked-in and CLI patients
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2789 Aware or not: Dynamic brain modularity underlying word masking
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**Fronto-temporal Connectivity in Pre-attentive Detection: A TMS & Event-related Optical Signal Study**  
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Hyun-Chul Kim1, Gunther Meinlchmidt2,3, Esther Stalujanis1, Angelo Belardii, Sungman Jo, Juhyeon Lee1, Dawoon Heo1, Dong-Youl Kim1, Marion Tegethoff2, Seung-Sik Yoo1, Jong-Hwan Lee1  
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**Changes in regional shape and volume of the subcortical nuclei in patients with tinnitus**  
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**Detecting tinnitus using a non-acoustic startle paradigm**  
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**Top-down frontotemporal connectivity mediates the effect of reduced regularity learning on psychotic**  
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**The brain’s mind eye in absence of visual experience: topographic mapping of the soundscape-space**  
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**Spatiotemporal boundaries of the P300 complex across multiple sensory modalities**  
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2807 Multi-Modal Investigation of the Reduced Sensitormotor Performance in Unilateral CRPS I Patients

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2812 Greater Occipital Nerve Blockade alters regional cerebral blood flow in Cluster Headache patients

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2809 Neuro-mechanisms of the Time Discounting in Chronic Pain

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2810 Regional bulbar and hemispheric responses to inhalation of capsaicin and adenosine tri-phosphate

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2811 A temporal disconnect between pain relief and radiation effect after Gamma Knife radiosurgery

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2812 Greater Occipital Nerve Blockade alters regional cerebral blood flow in Cluster Headache patients

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2813 Neuronal Mechanisms Underlying Successful Management of Chronic Pain

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2814 Induced perturbation in functional connectivity by cold pain using multi-echo resting state fMRI

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2815 Structural Neuroplasticity Following CBT for the Treatment of Chronic Musculoskeletal Pain

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2816 Neural somatosensory pain processing in borderline personality disorder

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2817 DKL-based connectivity reveals candidates related to interoceptive awareness accuracy

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2818 Exploring the multi-modal correlates of neonatal pain with machine learning

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2819 Exploring the multi-modal correlates of neonatal pain with machine learning

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2820 Frequency tagging insular activity related to sustained thermociception using intracerebral EEG

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2821 Frequency tagging insular activity related to sustained thermociception using intracerebral EEG

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2822 Exploring the multi-modal correlates of neonatal pain with machine learning

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2823 Exploring the multi-modal correlates of neonatal pain with machine learning

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2824 Attention or Counting: The Heartbeat Evoked Potential as a Window to Interoceptive Processing

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2825 Single-Subject Habenula Response to Thermal Pain at 7T
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2826 Responsibility levels modulate neural representations of outcome evaluation and pain perception
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2827 Brain network underlying tactile estimation of object stiffness - an fMRI study
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2828 Investigating somatosensory stimulation vs. attention in individual subjects using 7T fMRI
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2829 Optimization of proprioceptive finger stimulation to fMRI
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2830 10-Hz Modulation Laser Acupuncture Induced Specific Cerebral Cortical Activations: a Preliminary MEG
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2831 Somatotopic Mapping of the Human Breast using 7T fMRI
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2832 Large Scale Quantification of Cortical Somatosensory Representation
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2833 Searchlight Back-projection – A Tool for Analyzing Topographic Representations in Visual Space
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2834 The subjectiveness of illusory motion perception: evidence from effective connectivity study
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2835 Functional reorganization of population receptive fields in hemispherectomy patient with blindsight
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2836 Task-Evoked FC Does Not Explain FC Differences Between Rest and Task Conditions
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2837 Reconstructing the subjective perception of object size with population receptive field modelling
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2838 Forward-backward cortical loops index distinct modes of top-down processing
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2839 The contribution of colour information to rapid face categorization in natural scenes
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2840 Probing the neural underpinnings of processing speed using a combined diffusion-MRI EEG approach
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2841 Linking brain decoding methods to evidence accumulation models of decision behaviour
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2842 Weaker Representation to Nonface Objects in FFA is Associated with Better Face Detection Ability
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2843 Decoding of Binocular Disparity by Functional Connectivity
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2844 Genetic Modulation of COMT and NKA12 Variants on the Fusiform Face Area
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2845 Scaling Up Neural Datasets: A public fMRI dataset of 5000 scenes
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2846 The neurophysiology of numerosity varies as a function of stimulus type
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2847* Learning Transferable and Generalizable Neural Encoding Models for Natural Vision
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2848 A comprehensive investigation of face recognition lateralisation in the superior temporal sulcus
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2849* Dynamic coordination in scene processing network
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2850 Head-view invariant representation of identity for personally familiar and visually familiar faces
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2851 The neural representation featuring real-world visual expertise: a review and an ALE meta-analysis
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2852 Population receptive field analysis using Bayesian model selection
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2853 Comparing Deep Neural Network Based Encoding Models for Predicting Movie-induced Cortical Activities
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2854 Differential neural responses across face- and body-selective cortex explain categorization behavior
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2855 The representation of symmetry in multivoxel response patterns in the ventral visual stream
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2856 Submillimeter 7 Tesla fMRI in Primary Visual Cortex during monocular stimulation
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2857 Evidence for asymmetric perceptual adaptation to coherent and incoherent moving plaids
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2858 Inducing Neural Plasticity and Perceptual Similarity Using Real-Time fMRI Neurofeedback
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2859 Decoding the neural representation of observed social and nonsocial human actions
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2860 Functional connectivity network of the Kanizsa illusory contour perception
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2861 Complementary insights into representational momentum and prediction error signals from fMRI and EEG
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2862 Functional (re)organization of brain networks during visual perception and visually guided action
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2863 Influence of different luminance levels on population receptive field estimates
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2864 Multi-band accelerated high resolution population receptive field mapping on 7T
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2865 Spatial Frequency based Retinotopy
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2866 Population receptive field coverage provided by different retinotopic stimuli in healthy subjects
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2867 Heritability of the human visual connectome
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2868 Differential Sampling of Visual Space Across Low and High-Level Visual Areas
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2869 Model of predictive coding for motion perception in retinotopically organized neural networks
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2870 A web-based platform for predicting brain responses based on deep neural networks
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2871 Object shape and category are concurrently processed in temporal and parietal MEG sensors
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2872 Structural and Functional Connectivity of the Optic Radiation in Ultra Low Vision
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2873 Cortical feedback to superficial layers of V1 contains predictive scene information
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2874 Information Processing Dynamics in Human Category-Selective Ventral Temporal Cortex
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2875 Short-term effects of video gaming on brain response during working memory performance
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2876 Shorter sleep duration is associated with lower frontolimbic connectivity in school-age children
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2877 Elevated dynamical connectivity of functional integrations during sleep stage II
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2878 Decreased intrinsic functional connectivity in children during natural sleep
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2879 Post-nap performance and brain activation recovery after total sleep deprivation
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2880 Diurnal changes in glutamate/glutamine assessed by MRS are related to EEG sleep slow wave activity
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2881 Moderate Heritability of Cerebral Blood Flow in Community-based Older Individuals
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2882 Perioperative Changes in Cerebral haemodynamics in Neonates with Transposition of the Great Arteries
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2883 Graded-task-induced changes of cerebral metabolic rate of oxygen under mild hypoxia condition
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2884 Local Perfusion Alteration in the Auditory Cortex of Hearing Loss Patients
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2885 Glucose metabolism in cortical white matter is linked to myelination and functional connectivity
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2886 Quantitative characterization of human subcortical hemodynamic response at 3T and 9.4T
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2887 Cerebral blood flow predicts differential neurotransmitter activity
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2888 Scale-free electrophysiological activity reflects dynamics of multiple relaxation processes
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2889 7T combined fMRI- fMR study of neurochemical changes during movement in left motor cortex
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2890 Oblique and inverse-oblique effects in human EEG alpha/beta and gamma orientation tuning
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2891 Neural swelling activity in vivo in near-infrared light
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2892 Dopaminergic neuromodulation has no effect on visual-cue induced hemodynamic response function
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2893 Probing Learning Stage-Dependency of the Dopaminergic Impact on a Visuomotor Coordination Task
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2895 L-DOPA effects on model-based learning depend on basal 18F-DOPA metabolism
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2897 Oxytocin Modulation of Resting Regional Cerebral Blood Flow: a Peripherally-Controlled Study
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2898 Freud was right, you can always blame your parents: epigenetic hereditary effects on brain structure
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2899 Coordination between social variability and neural variability predict individuals well-being
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2900 Dorsomedial Prefrontal Cortex Inhibits Self-Serving Bias When Playing Actor but not Recipient Role
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2901 Transcendental Meditation reduces perceived stress and increases brain regional connectivity at rest
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2902 Representational Similarity of Self and Others in Medial Prefrontal Cortex Reflects Social Closeness
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2903 The special relationship between subject’s own name and spontaneous activity: an EEG study
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2904 Interpersonal stress increases the reliability of fMRI responses to autobiographical stories
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2905 The Imagination of Self-relevant Emotional Events Activates Rostral Anterior Cingulate Cortex
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2907 The interplay between sex and gender in autobiographical memory: an fMRI study
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2928 Social cognition and functional connectivity in Borderline Personality Disorder
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Social Interaction

2929 Classification of collaboration and competition with different reasoning orders using fMRI data
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2930 Neural Bases of Social Feedback Contingent on Own Performances
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2933 Interactive oscillations between speaker and listener during spontaneous word generation
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2934 Interpersonal Brain Synchronization under bluffing in strategic games
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2935 Inter-brain Synchrony between Individuals Acting Differently in the Complementary Collaboration
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2936 Disentangling interaction: A dual-fMRI study using the Pattern Game
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2937 Social Categorization Modulates the Processing of Social Evaluation in the Intergroup Context
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2938 Similarity of Functional Brain Connectivity in Long-term Married Couples
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2939 Effects of interpersonal stress on the neural mechanisms of social interaction
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2940 The role of the anterior insula in social norm compliance and enforcement
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2941 Interaction effects of testosterone application and MAOA polymorphism on brain activity during mTAP
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2942 Bullying involvement and brain morphology in children: a population-based neuroimaging study
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2943 Neuroelectrical Hyperscanning to Investigate Compassion and Altruistic Punishment
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2944 Causal role of temporo-parietal brain oscillatory activity in social bargaining
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2945 Neuroelectrical Hyperscanning to Investigate Compassion and Altruistic Punishment
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2946 Transcranial Direct Current Stimulation Changes the Interpersonal Neural Synchronisation
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2947 The role of Mirror Neuron System and Mentalizing System in online social interaction: An fNIRS study
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2948 Neural coupling during fMRI-Hyperscanning in romantic couples and relationship characteristics
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2949 Beta oscillations in the temporo-parietal region during joint attention in autism
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2950 Polygenic risk score for schizophrenia and brain response to faces in young adulthood
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2951 Altruistic and self-serving goals modulate behavioral and neural responses in deception
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2952 Neural bases of self and other representation: An fMRI investigation
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2953 Cultural and maternal symbols mitigate stress related responses in dorsolateral prefrontal cortex
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2954 Neural basis underlying inverting attitudes to AI from implicitly negative to explicitly positive
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