



OHBM 2021

EDUCATIONAL COURSES
MAY 30-JUNE 4

ANNUAL MEETING
JUNE 21-25

A Virtual Experience for Engaging Minds & Empowering Brain Science

Abstract Book

of the

27th annual meeting

of the

Organization for Human Brain Mapping

*Including titles linked to full abstracts,
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22 May 2021 — v1.0

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- 1187 Exploring feature similarity gradients in the preterm neonatal cortex**
Paola Galdi¹, Manuel Blesa¹, Claude Bajada², Gemma Sullivan¹, David Stoye¹, Gillian Lamb¹, Alan Quigley³, Antonios Makropoulos⁴, Michael Thrippleton¹, Mark Bastin¹, James Boardman¹
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- 1188 Reproducibility Test of Global Functional Connectivity**
 Jian Lin¹, Wanyong Shin¹, Stephen Jones¹, Katherine Koenig¹, Mark Lowe¹
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- 1189 Associations between brain structure, satellite-derived physical signatures and mental disorders**
 Yi-An Liao¹, Liliana Garcia-Mondragon¹, Xiaoxuan Liu², Alex Ing³, Le Yu², Gunter Schumann¹
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- 1190 Tractography in a Human Phantom Accurately Maps Normal Corpus Callosum and Injured Foci**
 Jacqueline Chen¹, Ken Sakaie¹, Mark Lowe¹, Andre Machado¹, Stephen Jones¹
¹The Cleveland Clinic, Cleveland, OH
- 1192 The reduced benefit of sleep in the realization of solutions to problems: Impact of age**
 Balmeet Toor¹, Nicholas van den Berg¹, Alyssa Pozzobon¹, Maddie Stewart¹, Laura Ray¹, Lydia Fang¹, Harleen Toor¹, Stuart Fogel¹
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- 1194 Decoding Neural Correlates of Cognitive Task Performance with Random Forest Classifiers**
 Corey Richier¹, Kamalani Fielder¹, Kyle Baacke¹, Wendy Heller¹
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- 1195 Seed-based Correlation Analysis on Isolated Perfusion Lag Structure in the Resting-state fMRI Signal**
 Toshihiko Aso¹, Takuya Hayashi¹
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- 1197 Study on brain connectivity with functional near-infrared spectroscopy**
 Yi Hua Huang¹, Le Mei Wang², Po Han Chou³, YI MIN WANG⁴, Kun-Hsien Chou⁵, Chung Ming Chen¹, Chia Wei Sun⁴
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- 1198 Tract-Based Spatial Statistics of Diffusion Tensor Imaging in Older Adults after the PICMOR Program**
 Hikaru Sugimoto¹, Mihoko Otake-Matsuura¹
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- 1201 A functional dissociation of posterior temporal lobe regions engaged by speech processing**
 Justyna Ekert¹, Andrea Gajardo-Vidal^{1,2}, Diego Lorca-Puls¹, Thomas Hope¹, Fred Dick^{3,4}, Jennifer Crinion⁵, David Green³, Cathy Price¹
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- 1203 Correction of induced functional connectivity in filtered resting state fNIRS data**
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- 1205 The Fronto-Parietal Network Is Not a Flexible Hub During Naturalistic Cognition**
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- 1206 Mapping neurotransmitter receptor distributions to the connectivity and dynamics of the human brain**
 Justine Hansen¹, Golia Shafiei¹, Ross Markello¹, Gabriel Wainstein², James Shine², Alain Dagher¹, Bratislav Misic¹
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- 1207 BIDS Statistical Models - An implementation-independent representation of General Linear Models**
 Christopher Markiewicz¹, Ross Blair¹, Katherine Bottenhorn², Gang Chen³, Alejandro De La Vega⁴, Elizabeth DuPre⁵, Oscar Esteban⁶, Satrajit Ghosh⁷, John Lee⁸, Camille Maumet⁹, Manjari Narayan¹, Thomas Nichols¹⁰, Dylan Nielson⁸, Hernando Ombao¹¹, Russell Poldrack¹, Jean-Baptiste Poline⁵, Adina Wagner¹², Tal Yarkoni¹³
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- 1209 Baseline white matter connectivity disruption predicts the development of dementia in PD-MCI**
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- 1210 Shamo v1.0 - Stochastic electromagnetic head modelling made easy**
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- 1212 Fractal dimension of DTI-derived WM skeleton is reduced in CADASIL**
 Chiara Marzi¹, Marco Giannelli², Andrea Bianchi³, Emilia Salvadori⁴, Francesca Pescini⁵, Leonardo Pantoni⁶, Mario Mascalchi³, Stefano Diciotti^{1,7}
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- 1214 A Comparison of Multimodal vs Unimodal Registration Accuracy Using Task fMRI**
 Frederik Lange¹, Stephen Smith¹, Christoph Arthofer¹, Jesper Andersson¹
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- 1216 Predictions of probabilistic sequences of environmental sounds**
 Pinar Göktepe¹, Jahan Gani-zana², Tommaso Fedele², Athina Tzovara^{1,3,4}
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- 1217 Multiplex connectome changes across the Alzheimer's spectrum**
 Anna Canal Garcia¹, Emiliano Gómez Ruiz², Mite Mijalkov¹, Giovanni Volpe², Joana Pereira¹
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- 1219 Memory Trace Expansion and Evolution: Medial Temporal Lobe Activation and Connectome 7T Evidence**
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- 1222 Activity in cerebellum correlate with the negative bias of facial emotion recognition in depression**
 Anna Nakamura¹, Yukihito Yomogida², Miho Ota³, Junko Matsuo², Ikki Ishida², Shinsuke Hidese², Hiroshi Kunugi⁴
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- 1223 Restricted smoothing of spinal cord fMRI data resolves structured temporal variation in heatmaps**
 Kimberly Hemmerling¹, Molly Bright¹
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- 1225 Cortical surface-based analysis of owl monkeys using high-resolution MRI**
 Takuro Ikeda¹, Akihiro Kawasaki¹, Chiho Takeda¹, Takayuki Ose¹, Joonas Autio¹, Masahiko Takada², Matthew Glasser^{3,4}, David Van Essen³, Takuya Hayashi¹
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- 1226 Dynamic neurometabolic and functional changes in dorsolateral prefrontal cortex in working memory**
 Hyerim Oh¹, Ben Babourina-Brooks¹, Adam Berrington¹, Dorothee Auer¹, Henryk Faas¹, JeYoung Jung¹
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- 1228 Towards a causal role of Broca's area in language: a TMS-EEG study on syntactic prediction**
 Matteo Maran^{1,2}, Ole Numssen¹, Gesa Hartwigsen¹, Angela Friederici¹, Emiliano Zaccarella¹
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- 1229 Evaluating the capabilities and challenges of layer-fMRI VASO at 3T**
 Renzo Huber¹, Lisa Kronbichler², Rüdiger Stirnberg³, Benedikt Poser¹, Sara Fernández-Cabello⁴, Tony Stöcker³, Martin Kronbichler⁵
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- 1230 Quantitative structural mapping of the lateral geniculate nucleus subdivisions in living human brain**
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- 1231 Protection Mechanism in Relatives of Schizophrenia Clients Hinted By a Repeated Long-Term DTI Scans**
 Yaron Caspi¹, René Mandl¹, Wiepke Cahn¹, René Kahn², Hilleke Hulshoff Pol¹
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- 1233 Edge-centric analysis of time-varying functional brain networks with applications in autism spectrum**
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- 1237 A comprehensive computational model of tauopathy progression using PET imaging**
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- 1238 A new tripartite landmark in human posterior cingulate cortex**
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- 1239 White matter abnormalities in bipolar disorder and schizophrenia**
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- 1241 Characterizing reward system neural trajectories from adolescence to young adulthood**
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- 1242 Structural connectivity analysis in operculo-insular epilepsy**
Sami Obaid¹, François Rheault¹, Manon Edde¹, Guido Guberman², Etienne St-Onge¹, Jasmeen Sidhu¹, Alain Bouthillier³, Alessandro Daducci⁴, Dang Nguyen³, Maxime Descoteaux¹
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- 1244 Phase Synchronization of Resting-State Brain Networks with the Gastric Basal Electrical Rhythm**
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- 1245 Explainable Boosting Machine for predicting Alzheimer's disease: a Hippocampal Subfields study**
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- 1247 Radial Correlation and Radial Similarity Contrast Reveal Abnormal Brain Networks in Dystonia**
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- 1248 Mapping structure to function and behavior with individual-level connectome embedding**
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- 1250 Self-control impacts internet gaming disorder through dorsal cingulate – ventral striatal pathway**
Liangyu Gong¹, Hui Zhou¹, Conghui Su¹, Wan Xi¹, Binyu Teng¹, Fengji Geng¹, Yuzheng Hu¹
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- 1251 Connectivity of specific regions predicts fear and anger affect better than whole brain connectivity**
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- 1252 Meta-Analytic Connectivity Modelling of Deception-Related Brain Regions**
Sarah Meier¹, Don Robin¹, Kimberly Ray²
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- 1253 Shifting towards movie-watching fMRI to investigate emotional processing in adolescent depression**
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- 1254 High-resolution whole-brain Conductivity Tensor Imaging of the human brain**
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- 1255 Tracking rapid stimulus-driven BOLD oscillations using fast fMRI in the human primary motor cortex**
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- 1256 Inhibitory Control over Reward in Dependent Smokers: An fMRI Study**
Shivam Kalhan¹, Marta Garrido¹, Robert Hester¹
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- 1257 Fibre-specific brain abnormalities in sports-related mild Traumatic Brain Injury**
 Remika Mito¹, Donna Parker¹, Mangor Pedersen^{1,2}, David Abbott^{1,3}, Michael Makdissi⁴, Graeme Jackson^{1,3,5}
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- 1259 Dynamic functional connectivity reveals self-referential network predominating in older age**
 Lu Zhang^{1,2,3}, Jiajia Zhao¹, Qunjie Zhou¹, Zhaowen Liu^{4,5}, Yi Zhang¹, Wei Cheng¹, Weikang Gong⁶, Xiaoping Hu⁷, Wenlian Lu^{1,2,8}, Edward T. Bullmore^{9,10}, Chun-Yi Zuo¹, Jianfeng Feng^{1,2,11,12}
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- 1260 The Altered Resting-state Functional Connectivity of Thalamus in Patients with Globus Pharyngeus**
 Yuening Jin¹, Yi Du², Jingjie Zhao², Qian Zhao², Lianlu Gao¹, Li Li², Yuan Zhou¹
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- 1263 Groupitizing modifies neural coding of numerosity**
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- 1264 Generalizing longitudinal age effects on brain structure: a two-study comparison approach**
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- 1265 Incidental MRI findings and the cognitive performance in the elderly: the Shanghai Changfeng study**
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- 1266 The Development of Emotional Facial Expressions: a Topological Study on Infants**
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- 1267 Lateralization of human brain connectivity: a consequence of simple brain scaling principles?**
 Dirk Jan Ardesch¹, Lianne Scholtens¹, Siemon de Lange¹, Lea Roumazeilles², Alexandre Khrapitchev², Todd Preuss³, James Rilling³, Rogier Mars⁴, Martijn van den Heuvel⁵
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- 1269 Dynamic effective connectivity in the motor network: investigating temporal changes during tDCS**
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- 1270 Batch Effects are Causal Effects: Applications in Human Functional Connectomes**
 Eric Bridgeford¹, Michael Powell¹, Anton Alyakin¹, Ross Lawrence¹, Brian Caffo¹, Joshua Vogelstein¹
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- 1271 An expanding manifold characterizes adolescent reconfiguration of structural connectome organization**
 Bo-yong Park¹, Richard Bethlehem², Casey Paquola¹, Edward T. Bullmore³, Boris Bernhardt¹
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- 1274 A multiscale cortical wiring space charts adolescent development of structural brain networks**
 Bo-yong Park¹, Casey Paquola¹, Richard Bethlehem², Oualid Benkarim¹, Edward T. Bullmore³, Boris Bernhardt¹
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1276 Reward Processing in Novelty Seekers: A Transdiagnostic Psychiatric Imaging Biomarker

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1277 Characterization of early maternal immune activation on brain and behavior

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1278 Childhood Maltreatment History Is Linked to Abnormal Brain Structure in Conduct Disorder

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1280 Comparing classical and autoencoder multi-view methods for imaging genetics on a large-scale dataset

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1281 The relationship between EEG-fMRI connectomes is reproducible across studies from 1.5T to 7T

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1282 Evaluation of the Correctness of Non-biological Sensory Events by Human Motor Cortical Circuits

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1283 Evaluation of thresholding methods for functional connectivity data using ground-truth simulations

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1285 Linking callosal structure to uni- and bilateral motor task performance in younger and older adults

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1286 Patch flattening for high resolution topographical surveys of MRI & histology without surface meshes

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- 1287 In vivo human MRI at 0.35 mm reveals up to 15 ms T2* changes within gray matter across depths at 7T**
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- 1288 Cortical Projection Topography across Thalamus Reflects Large-scale Brain Organization**
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- 1289 Association of R2 Relaxation Rate with LATE-NC: An Ex-vivo MRI and Pathology Study**
Mahir Tazwar¹, Arnold Evia², Ashish Tamhane², David Bennett², Julie Schneider², Konstantinos Arfanakis^{1,2}
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- 1290 Hippocampal volume varies with environmental toxin exposure**
Kristen Buford¹, Juliann Purcell¹, Carly Snidow¹, Tasha Curriel¹, Heather Dark¹, Sylvie Mrug¹, David Knight¹
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- 1291 Language network hyperconnectivity in MEG: marker of resiliency in extremely preterm children?**
Maria Barnes-Davis¹, Hisako Fujiwara¹, Stephanie Merhar¹, Nehal Parikh¹, Darren Kadis²
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- 1292 Improving EEG coordinate space transformation: A novel midpoint-plane transformation technique**
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- 1294 The effect of sleep and bully on the superior frontal gyrus**
Anna Kleit¹, Hideo Suzuki²
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- 1295 The effect of body posture on resting-state functional connectivity**
Barbara Avelar-Pereira¹, Grace Tam¹, S. M. Hadi Hosseini¹
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- 1296 Exercise-related consolidation of cerebral blood flow covariance in youth with bipolar disorder**
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- 1297 Analytic Bias in Neuroimaging**
Kendra Oudyk¹, Jérôme Dockès¹, Lukas Shannon¹, Kate Kim¹, Jean-Baptiste Poline¹
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- 1298 Functional connectivity of the hippocampal subfields in an aging population**
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- 1299 Accelerated brain volume decline in normal aging overlaps with Alzheimer's disease pathology**
Barbara Avelar-Pereira¹, Curran Phillips¹, S. M. Hadi Hosseini¹
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- 1300 Mental health is associated with abnormal time-varying functional connectivity for cognitive ability**
Wei Zhang¹, Diego Vidaurre², Janine Bijsterbosch¹
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- 1304 Superficial white matter microstructural alteration in cerebral Small Vessel Disease**
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- 1306 Association of glycolysis with the structural connectome reveals a benefit–risk balancing mechanism**
Yuhan Chen¹, Qixiang Lin¹, Xuhong Liao¹, Changsong Zhou², Yong He¹
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- 1307 Structural and functional brain changes associated with post-stroke depression**
Lena Oestreich¹, Paul Wright², Michael O'Sullivan¹
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- 1308 Left Rostral Prefrontal Connectivity Links Thalamic Stimulation to Changes in Relational Reasoning**
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1311 Uncovering the heterogeneity of Alzheimer's diseases with subtypes

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1312 Identifying Therapeutic Targets for Neuropathic Pain Based on the Network Effects of Brain Lesions

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1313 CNN visualization methods reveal diagnostically relevant brain regions to detect Alzheimer's disease

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1314 Warped Bayesian Linear Regression for Normative Modelling of Big Data

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1315 Effect of ICA Denoising Strategy on Surface-based Task fMRI

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1318 MELD Project: Predictors of lesion location and postsurgical seizure freedom in FCD

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1319 MELD Project: Quantitative analysis of associations between MRI features and FCD histopathologies

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1320 Neural connectome encodes the risk of post-traumatic stress disorder (PTSD) in the COVID-19 pandemic

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1321 Do personality traits explain differences in resting state functional connectivity in older adults?

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1322 Clustering fMRI Dynamic Functional Connectivity Time Series with Deep Autoencoders

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1325 Spectral Features of Human Brain Activity Are Related to Sensory-Associative Cortical Gradient

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- 1328 Asymmetries of Large-Scale Cortical Organization: Heritable and Phylogenetic Profiles**
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- 1329 Attention modulates Functional Connectivity in Prospective Memory: Insights from a MEG study**
 Stefano Vicentin¹, Giorgia Cona¹, Giorgio Arcara², Patrizia Bisiacchi¹
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- 1330 Efficient mapping of cortical finger representations in the human brain with TMS**
 Ole Numssen¹, Anna Leah Zier¹, Axel Thielscher^{2,3}, Gesa Hartwigsen¹, Thomas Knösche^{1,4}, Konstantin Weise^{1,4}
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- 1331 Characteristics of language localization in the frontal language area based on awake brain mapping**
 Riho Nakajima¹, Masashi Kinoshita¹, Hirokazu Okita², Mitsutoshi Nakada¹
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- 1332 Studying the effect of scanner change on measures of gray matter for Alzheimer's disease studies**
 Agnès Pérez-Millan¹, José Contador¹, Adrià Tort¹, Sergi Borrego-Écija¹, Beatriz Bosch¹, Mircea Balasa¹, Bàrbara Segura², Gemma Monté-Rubio², Núria Bargalló¹, Albert Lladó¹, Raquel Sanchez-Valle¹, Roser Sala-Llonch²
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- 1334 The association between graph measures of resting-state fMRI and psychological traits and sex**
 Qian Ran^{1,2}, Dongtao Wei^{3,4}, Lukas Van Oudenhove⁵, Wenjing Yang^{3,4}, Qunlin Chen^{3,4}, Jie Meng^{3,4}, Rik Vandenberghe^{1,6,7}, Jiang Qiu^{3,4}, Patrick Dupont^{1,6}
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- 1335 Dynamics of task-related electrophysiological networks: a benchmarking study**
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- 1338 Heritability of MEG phenotypes among patients with genetic generalized epilepsy and their siblings**
 Christina Stier^{1,2}, Adham Elshahabi^{2,3}, Yiwen Li Hegner², Raviteja Kotikalapudi^{1,2,4}, Justus Marquetand², Christoph Braun^{5,6}, Holger Lerche², Niels Focke^{1,2}
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- 1339 Validation and Reproducibility of Group Cohesive Parcellation on rsfMRI at 3T**
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- 1341 A Bayesian Lesion Regression Model with a Structured Spike-and-Slab Prior**
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- 1342 Combining task connectomes can emphasize or deemphasize group differences in predictive modeling**
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- 1343 Automated Olfactory Bulb Segmentation on High-Resolution T2 MRI using Convolutional Neural Networks**
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- 1344 Fornix Integrity and Its Association With Cognition: A Pilot DWI Study in Thai Older Adults**
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- 1347 Predicting Brain Amyloid using Multivariate Morphometry, Sparse Coding and Correntropy**
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- 1349 A preprocessed open diffusion derivatives dataset from the Healthy Brain Network**
Adam Richie-Halford¹, Matthew Cieslak², Alexandre Franco³, Valerie Sydnor², Jason Yeatman⁴, Lei Ai³, Michael Milham³, Theodore Satterthwaite², Ariel Rokem¹
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- 1351 Reaction time modeling in fMRI: Between-subject RT differences persist with between-trial adjustment**
Jeanette Mumford¹, Patrick Bissett¹, Henry Jones¹, Russell Poldrack¹
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- 1355 Longitudinal Stability of Quantitative MRI Measurements**
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- 1356 An fMRI Study of Semantic, Episodic and Creative Contributions to Word-Pair Link Formation**
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- 1357 DDisability Classification Using Empirical vs Predicted Structural and Functional Connectivity in MS**
Ceren Tozlu¹, Keith Jamison¹, Zijin Gu², Susan Gauthier¹, Amy Kuceyeski¹
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- 1358 Amyloid beta deposition and cognitive decline in Parkinson's disease: a study of the PPMI cohort**
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- 1359 Individual Differences of Neural Mechanisms in Language Comprehension**
Xin Liu¹
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- 1360 Gamma band artifact removal in EEG-fMRI simultaneous recordings**
Narges Moradi¹, Roberto Sotero¹
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- 1361 The Effects of Focal and Diffuse Damage on Functional Networks: A comparison of Stroke and PPA**
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- 1362 Dynamic functional connectivity patterns caused by acute stress**
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- 1364 NeuroDISK - Continuous integration of neuroimaging data for dynamic statistical inferences**
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- 1367 Characterization of Fiber Tract Integrity in Patients with Traumatic Brain Injury**
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- 1369 Cognitive implications of changes across DMN structural connectivity related to cannabis use and HIV**
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- 1370 Tract-based spatial statistics analysis on white matter in patients with disorder of consciousness**
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1371 Functional Connectivity Individualization in Early Childhood

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1372 Whit matter MTR change across lifespan supports the myelodegeneration hypothesis

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1374 Convergent cortical neuroimaging signatures and molecular of Alzheimer's Disease

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1375 Resting-state brain dynamic modes predict behavioral traits

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1376 Aging-related changes in intrinsic alignment of functional signals with anatomical networks

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1377 Real-time fMRI Neurofeedback Training of the Supplementary Motor Area in Patients with Tic Disorders

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1378 Effects of hormone therapy on neurotransmitter levels in gender dysphoria

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1379 Gender difference in behavioral response delay under stress, the role of dACC-DMN connectivity

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1380 Using fMRI and rTMS to Explore the Role of the Inferior Parietal Lobe in Pain-Related Empathy

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1381 DTI longitudinal data processing method using subject specific template in neuroplasticity project

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1383 Finding the optimal spatiotemporal scale of functional network activity

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- 1384 Two latent dimensions linking multi-featured brain structure to behaviour in healthy adults**
 Eliana Nicolaisen¹, Shahrzad Kharabian Masouleh^{1,2}, Agoston Mihalik^{3,4}, Fabio Ferreira^{3,4}, Somayeh Maleki Balajoo^{1,2}, Simon Eickhoff^{1,2}, B.T. Thomas Yeo^{5,6}, Janaina Mourao-Miranda^{3,4}, Sarah Genon^{1,2}
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- 1385 Does fMRI heat the Brain? - Magnetic Resonance Spectroscopy Thermometry study at 3 Tesla**
 Marcin Sińczuk¹, Nikodem Hryniewicz¹, Ewa Piątkowska-Janko^{1,2}, Piotr Bogorodzki^{1,2}
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- 1386 Functional connectivity alterations between the DMN and occipital cortex in patients with OCD**
 Tal Geffen¹, Jonathan Smallwood², Carsten Finke^{3,4}, Sebastian Olbrich⁵, Zsuzsika Sjoerds^{6,7}, Florian Schlagenhaut^{1,8,9}
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- 1387 Cerebellum correlates best with resting tremor in Parkinson patients in a multimodal analysis**
 Jitse Sietse Amelink^{1,2}, Alberto Llera^{1,2}, Freek Nieuwhof^{1,2}, Natalie Forde^{1,2}, Rick Helmich^{1,2}, Christian Beckmann^{1,2,3}
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- 1388 Functional Mechanisms of Aging in S1 using Bayesian Population Receptive Field Mapping at 7T-MRI**
 Peng Liu^{1,2}, Juliane Doehler^{1,2}, Thomas Wolbers^{2,3}, Esther Kuehn^{1,2,3}
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- 1389 Layer-specific myeloarchitecture of human S1 hand area in younger and older adults at 7T-MRI**
 Juliane Doehler¹, Alicia Northall², Alessio Fracasso³, Gabriele Lohmann⁴, Pierre-Louis Bazin⁵, Daniel Haenelt⁶, Thomas Wolbers⁷, Esther Kuehn^{8,9,10}
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- 1390 Aging Myeloarchitecture of Large-Scale Body-Part Representations in M1 at 7T-MRI**
 Alicia Northall¹, Juliane Doehler¹, Igor Tellez¹, Miriam Weber², Stefanie Schreiber², Esther Kuehn^{1,3,4}
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- 1391 Gray and White Matter Brain Age has Distinct Associations with Lifestyle and Fluid Intelligence**
 Hui-Ming Tseng¹, Chang-Le Chen¹, Pin-Yu Chen¹, Yung-Chin Hsu², Wen-Yih Isaac Tseng^{1,3}
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- 1392 Generalization failure of RSFC-based behavioral prediction in non-European pediatric population**
 Jingwei Li^{1,2,3}, Danilo Bzdok^{4,5}, Jianzhong Chen³, Angela Tam³, Leon Qi Rong Ooi³, Avram Holmes^{6,7}, Tian Ge^{8,7,9}, Kaustubh Patil^{1,2}, Simon Eickhoff^{1,2}, B.T. Thomas Yeo^{3,10}, Sarah Genon^{1,2}
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- 1393 Global and regional thickness associations with general and specific cognition in early psychosis**
Katie Lavigne^{1,2}, Delphine Raucher-Chéné¹, Mallar Chakravarty¹, Alan Evans², Martin Lepage¹
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- 1395 Paired Associative Stimulation and Modulation of Sensorimotor Oscillations after Spinal Cord Injury**
Jukka Vanhanen^{1,2}, Lauri Parkkonen³, Jyrki Mäkelä¹, Alexandra Tolmacheva¹, Anastasia Shulga^{1,4}, Andrey Rodionov¹, Erika Kirveskari^{1,2}
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- 1396 Associations between MRI- and PET-based measures of brain connectivity**
Aldana Lizarraga¹, Isabelle Ripp¹, Igor Yakushev²
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- 1398 Cortical and subcortical micro-structure is associated with polygenic risk for schizophrenia**
Eva - Maria Stauffer¹, Richard Bethlehem², Varun Warriar², Graham Murray^{3,4,5}, Rafael Romero-Garcia¹, Jakob Seidlitz^{6,7}, Edward T. Bullmore¹
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- 1399 (Un)common space in infant neuroimaging studies: a systematic review of infant templates**
C. Alice Hahn¹, Silvia Gini², Alexis Alfano³, Hannah Peterson¹, Saloni Mehta¹, Alexander Dufford¹, Dustin Scheinost¹
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- 1400 Silent multi-echo fMRI at sub-second resolution using Extreme Coherence-Resolved Looping Star**
Nikou Damestani¹, Andrew Leynes², Ana Beatriz Solana³, David Lythgoe¹, Brice Fernandez⁴, Brian Burns⁵, Peder Larson², Steven Williams¹, Fernando Zelaya¹, Florian Wiesinger³
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- 1404 Propofol modulates functional connectivity signatures of attention: A preregistered replication**
Taylor Chamberlain¹, Monica Rosenberg¹
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- 1406 A Jugular Vein Compression Collar Reduces DTI and NODDI Changes in White Matter after Blast Exposure**
Weihong Yuan^{1,2}, Jonathan Dudley¹, Alexis Slutsky-Ganesh³, James Leach^{1,2}, Pete Scheifele^{4,2}, Mekibib Altaye^{1,2}, Kim Barber Foss¹, Jed Diekfuss¹, Christopher Rhea³, Greg Myer^{1,2}
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- 1407 Spatiotemporal Trajectories in Resting-state FMRI Revealed by Convolutional Variational Autoencoder**
Xiaodi Zhang¹, Eric Maltbie¹, Shella Keilholz¹
¹Emory University / Georgia Tech, Atlanta, GA
- 1408 An interpretable and efficient statistical model to estimate dynamic functional connectivity**
Katherine Tsai¹, Mladen Kolar², Oluwasanmi Koyejo³
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- 1409 Recent Advances in Scattered Light Imaging Enable New Insights into Brain's Nerve Fiber Architecture**
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- 1410 Human Brain Surface-Volume Atlases of Newborns to Centenarians**
Sahar Ahmad¹, Ye Wu¹, Zhengwang Wu¹, Weili Lin¹, Li Wang¹, Gang Li¹, Pew-Thian Yap¹
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- 1411 MVPA classification of natural sounds in early visual cortex**
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- 1412 Motor sequence learning and prefrontal stimulation modulate hippocampo-frontal multivoxel patterns**
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- 1415 Validation and comparison of three methods for extracting white matter hyperintensities**
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1416 Human Thalamic Activity During Intra-Dimensional and Extra-Dimensional Set Shifting

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1417 Modulation of Peak Alpha Frequency during Working Memory is greater in Females than Males

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1418 Effects of bariatric surgery and weight loss on resting-state functional connectivity

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1419 Recurrent neural networks trained on N-back task reveal functional activity of visual working memory

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1420 Focal lesions induce large-scale percolation of sleep-like intracerebral activity in awake humans

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1421 Tedana: Multi-echo fMRI tools and resources

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1422 Ballistocardiogram artefact corrections in EEG-fMRI using beamforming spatial filtering techniques

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1423 Robustness of task activation is key? An investigation on the test-retest reliability of task fMRI

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1425 Effects of pregnancy, menopause and lifestyle risk factors on cortical thickness in healthy ageing

Manuela Costantino^{1,2}, Grace Pigeau^{1,3}, Aurelie Bussy^{1,4}, Nadia Blostein^{1,4}, Gabriel Devenyi^{1,5}, Ross Markello^{6,4}, Raihaan Patel^{1,3}, Nicole Gervais^{7,8}, Mallar Chakravarty^{9,3,5}

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- 1427 A resting-state fMRI study among Normal, High Risk, and Cognitively Impaired Older Individuals**
Neda Rashidi-Ranjbar^{1,2}, Tarek Rajji^{3,2}, Sanjeev Kumar^{3,2}, Nathan Herrmann^{3,4}, Linda Mah^{3,5}, Corinne Fischer⁶, Alastair Flint^{3,7}, Meryl Butters⁸, Bruce Pollock^{3,2}, Erin Dickie^{3,2}, Colin Hawco^{3,2}, Benoit Mulsant^{3,2}, Aristotle Voineskos^{3,2}
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- 1429 Association of Latent Trauma with Distinctive Patterns of Cortical Thickness in Children**
Hee Jung Jeong¹, E. Leighton Durham¹, Tyler Moore², Randolph Dupont¹, Carlos Cardenas-Iniguez³, Emily Micciche¹, Marc Berman³, Benjamin Lahey³, Antonia Kaczkurkin¹
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- 1430 Trail Making Test Performance using a Tablet: Behavioural Kinematics and Electroencephalography**
Zhongmin Lin¹, Fred Tam², Nathan Churchill³, Fa-Hsuan Lin^{1,2}, Bradley MacIntosh^{1,2}, Tom Schweizer^{3,4}, Simon Graham^{1,2}
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- 1431 Column-Scale Encoding of Personal Space using high resolution 7T fMRI**
Zahra Nasirivanani¹, Roger Tootell², Baktash Babadi³, Shahin Nasr², Douglas Greve², Jonathan Polimeni², Daphne Holt³
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- 1432 Hemispheric Differences in the Principal Gradient and Their Contribution to Cognition**
Tirso Gonzalez Alam¹, Bronte Mckeown¹, Boris Bernhardt², Reinder Vos de Wael³, Daniel Margulies⁴, Jonathan Smallwood⁵, Elizabeth Jefferies¹
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- 1433 Human thalamic activity and thalamocortical functional connectivity during the N-back task**
Xitong Chen¹, Evan Sorenson¹, Kai Hwang¹
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- 1434 Transcriptomic Underpinnings of Individual Variation in Brain Co-activity**
Nhung Hoang¹, Mary Lauren Benton², John Capra³, Mikail Rubinov¹
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- 1435 The Functional Connectome in Posttraumatic Stress Disorder**
Isabella Breukelaar¹, Richard Bryant¹, Mayuresh Korgaonkar²
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- 1437 3D Brain MRI Super-Resolution with Image Gradient Tensor Feature Clustering**
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- 1438 Exploring Shared Genetic Effects of Emotion and Subcortical Volumes**
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- 1439 Functional Connectivity Profiles Predict Trial-by-Trial Success in a Navigation Task**
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- 1440 A Region-Specific Accelerated Brain Aging Pattern in Parkinson's Disease**
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- 1442 Problem complexity modulates brain responses of mental arithmetic in female but not in male**
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- 1443 Behavioral and neuro-cognitive bases for formation of a shared reality through social interaction**
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- 1444 The dlPFC Presents Structural Variations Associated with Empathic Capacity in Psychotherapists**
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- 1445 Dynamic functional connectivity changes associated with small vessel disease**
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- 1447 GABA levels predict the familiarity of recognition memory in human dlPFC**
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- 1449 Structure-Function Dissociations of Hippocampal Subfield Viscoelasticity and Memory Performance**
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- 1450 Examination of hippocampal and amygdalar volumes in major depressed patients after ketamine**
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- 1451 Effects of age-related neuropathologies on the shape of subcortical structures**
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- 1452 Dynamic functional connectivity in world class gymnasts**
 Yaoke Deng¹, Xiaolin Yang¹, Huiyuan Huang², Xiaoying Zhang¹, Kemeng Chen¹, Jiajun Liao¹, Chuchu Jia¹, Ruiwang Huang¹
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- 1453 NeuroDesk - A cross-platform desktop environment for reproducible and scalable neuroscience**
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- 1454 High Associations Between Brain and Distractor Suppression Ability Across High-WMC Individuals**
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- 1456 Structural covariance and heritability of the optic tract and primary visual cortex in living human**
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- 1457 Reproducible surface-based stability of dynamic functional architecture during rumination**
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- 1459 Individual differences in antisaccade cost are related to precentral gyrus**
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- 1460 Development of functional brain networks underlying sustained attention over childhood & adolescence**
 Phoebe Thomson^{1,2}, Charles Malpas¹, Nandita Vijayakumar³, Katherine Johnson¹, Vicki Anderson^{2,4,1}, Daryl Efron^{2,1,4}, Philip Hazell⁵, Emma Sciberras^{3,2,1}, Timothy Silk^{3,2,1}
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1461 Chronic stroke sensorimotor impairment correlates with spared hippocampal volume: An ENIGMA Analysis

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1463 Neuroanatomical pattern classification of Multi-protocol MRI data across psychotic diseases

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1464 MRI texture analysis for the prediction of survival in amyotrophic lateral sclerosis

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1465 Spatiotemporal Specificity of TMS-evoked Potentials versus Sensory Evoked Potentials

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1466 Gender difference in brain activation during social navigation

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1467 Heterogeneity of amyloid accumulation is associated with cognitive decline

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1468 Fronto-parietal network involvement in inhibitory control across the life span

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1469 Higher socioeconomic status enhances confidence facing COVID-19 for males: role of parahippocampus

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1471 Functional Connectivity of the Medial Prefrontal Cortex Related to Mindreading Abilities

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1472 Hemifield Auditory Stimulation and the Right Hemisphere Dominance of Stimulus-Preceding Negativity

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- 1473 Virtual histology of sex differences in brain structural variance**
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- 1474 Mapping neuroanatomical heterogeneity of multi-site Alzheimer's Disease data using normative models**
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- 1475 BIDS-prov : a provenance framework for BIDS**
 Rémi Adon¹, Stefan Appelhoff², Tibor Auer³, Laurent Guillo⁴, Yaroslav Halchenko⁵, David Keator⁶, Christopher Markiewicz⁷, Thomas Nichols⁸, Jean-Baptiste Poline⁹, Satrajit Ghosh¹⁰, Camille Maumet¹¹
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- 1476 Linking early imaging of stroke and gradual cognitive decline – a DTI and tractography study**
 Barbora Buckova^{1,2}, David Kala³, Veronika Matuskova⁴, Vojtech Kumpost³, Lenka Svobodova¹, Jakub Otahal³, Antonin Skoch⁵, Vlastimil Sulc⁴, Anna Olserova⁴, Petr Jansky⁴, Ales Tomek⁴, Petr Marusic⁴, Premysl Jiraska³, Jaroslav Hlinka²
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- 1478 Genetic Association of Blood Pressure With Cortical Microstructure and Functional Connectivity**
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- 1479 Robustness of individualized inferences from longitudinal resting state EEG dynamics**
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- 1481 Learning to predict Cutting Angles from Histological Human Brain Sections**
 Christian Schiffer^{1,2}, Luisa Schuhmacher³, Katrin Amunts^{1,4}, Timo Dickscheid^{1,2}
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- 1482 Association between rumination and inhibitory control: neural evidence based on meta-analyses**
 Xiaoqi Song¹, Jixin Long¹, Chaogan Yan², Chanyu Wang¹, Haifeng Yan¹, Chichen Zhang³, Ruibin Zhang^{1,4}
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- 1483 The Two-component Structure of Cortical Slow Waves in Anticipation of Auditory Stimuli**
 Yoshimi Ohgami¹, Yasunori Kotani¹, Nobukiyo Yoshida², Akira Kunimatsu², Shigeru Kiryu³, Yusuke Inoue⁴
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- 1484 TRAMPOLINO: the Swiss Army Knife for exploratory tractography and reproducible workflows**
 Matteo Mancini^{1,2,3}, Bastian David⁴, Tommy Boshkovski³, Elizabeth DuPre⁵, Jean-Baptiste Poline⁵, Jennifer Campbell⁶, Mara Cercignani¹, Nikola Stikov³
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- 1485 Resting State Fast Brain Dynamics Reflect Motor Performance but Not Learning-Related Plasticity**
 Liliia Roshchupkina¹, Vincent Wens¹, Nicolas Coquelet¹, Xavier de Tiege¹, Philippe Peigneux¹
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- 1486 The Influence of Spatial Normalization on Functional Activation Analyses**
 Peter Stöhrmann¹, Lucas Rischka¹, Gregor Gryglewski¹, Thomas Vanicek¹, Manfred Klöbl¹, Marcus Hacker², Rupert Lanzenberger¹, Andreas Hahn¹
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- 1487 A comparison of individualized behaviour prediction across modalities in MRI**
 Leon Qi Rong Ooi¹, Jianzhong Chen², Ruby Kong¹, Angela Tam², Jingwei Li³, Juan Helen Zhou¹, B.T. Thomas Yeo²
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- 1488 An executive-functions based training engages the somatomotor and auditory networks in dyslexia**
 Tzipi Horowitz-Kraus¹, Ally Dworetzky², Rola Farah³, Bradley Schlaggar⁴, Steven Petersen²
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- 1489 Exploring quantitative MRI contrast in posterior cortical atrophy using ex vivo imaging**
 Luke Edwards¹, Carsten Jäger¹, Evgeniya Kirilina^{1,2}, Karl-Heinz Herrmann³, Kerrin Pine¹, Patrick Scheibe¹, Jürgen Reichenbach³, Nikolaus Weiskopf^{1,4}
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- 1490 Spontaneous brain activity, graph metrics and head motion predict PTSD psychotherapy response**
 Remko van Lutterveld¹, Tim Varkevisser¹, Karlijn Kouwer¹, Sanne van Rooij², Mitzy Kennis³, Martine Hueting¹, Simone van Montfort⁴, Edwin van Dellen⁵, Elbert Geuze¹
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- 1491 Distinct Intrinsic Functional Connectomes of Distractor Suppression in High- and Low-WMC Individuals**
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- 1492 Voluntary Control Over Attention Using Real-Time fMRI Neurofeedback (rtfMRI-nf)_EEG results**
 Reza Mazloun¹, Jeanette Popovova², Gianluca Maccauda³, Philipp Stämpfli⁴, Sascha Frühholz², Patrik Vuilleumier⁵, Frank Scharnowski⁶, Vinod Menon⁷, Roger Gassert², Lars Michels³
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- 1493 A trans-species neuroanatomical model for the triple-network organization**
 Roël Vrooman¹, Francesca Mandino², Heidi Foo², Ling Yun Yeow², Thomas Bolton³, Piergiorgio Salvan⁴, Chai Lean Teoh², Chun Yao Lee², Antoine Beauchamp⁵, Sarah Luo², Renzhe Bi², Jiayi Zhang², Guan Hui Tricia Lim², Nathaniel Low², Jerome Sallet⁴, John Gigg⁶, Jason Lerch⁴, Rogier Mars¹, Malini Olivo², Yu Fu², Joanes Grandjean¹
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- 1495 Comparing approaches for estimating regional hemodynamic timing differences in BOLD-fMRI data**
 Jingxuan Gong¹, Rachael Stickland¹, Molly Bright¹
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- 1497 Inter-session reliability of automatic segmented MRI-derived measurements by FreeSurfer**
 Yuling Guan¹, Lunxiong Li², Fengguang Xia², Xiaolin Yang¹, Haishan Yuan¹, Lixin Qiu¹, Mingtai Li¹, Qinda Huang¹, Ruiwang Huang^{1,3}
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- 1498 Parcellation-induced Variation of Empirical and Simulated Functional Brain Connectivity**
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- 1499 Hair Glucocorticoid Associations with Brain Structure in Major Depressive Disorder**
 Claire Green¹, Aleks Stolicyn¹, Mathew Harris¹, Liana Romaniuk¹, Miruna Barbu¹, Xueyi Shen¹, Emma Hawkins¹, Mark Adams¹, Stephen Lawrie¹, Rebecca Reynolds¹, Jonathan Cavanagh², Andrew McIntosh¹, Heather Whalley¹
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- 1500 Replicating extensive brain structural heterogeneity in individuals with a mental disorder**
 Thomas Wolfers¹, Jaroslav Rokicki², Dag Alnæs², Pierre Berthet², Seyed Mostafa Kia³, Mariam Zabihi³, Christian Beckmann⁴, Ole Andreassen², Andre Marquand⁵, Lars Westlye²
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- 1501 Auditory enhancement of illusory contour perception: a 7T fMRI study**
 Anna Gaglianese¹, Ruxandra Tivadar², David Tovar^{3,4}, Carlein Roelofzen⁵, Wietske Van Der Zwaag⁵, Alessio Fracasso⁶, Serge Dumoulin⁵, Micah Murray^{1,7,8}
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- 1503 Exploring large-scale cortical organization in chimpanzees: probing myeloarchitecture with qMRI**
 Ilona Lipp¹, Evgeniya Kirilina¹, Carsten Jäger¹, Markus Morawski², Anna Jauch¹, Sofie Valk¹, Kerrin Pine¹, Luke Edwards¹, Cornelius Eichner¹, Tobias Gräßle³, Alfred Anwander¹, Angela Friederici¹, Roman Wittig⁴, Catherine Crockford⁴, Nikolaus Weiskopf¹
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- 1504 Mining brain-wide gene expression data to identify imaging genomic modules via biclustering**
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- 1505 Social brain dynamics: Co-activation and interaction of networks enabling empathy and Theory of Mind**
 Lara Maliske¹, Matthias Schurz², Philipp Kanske¹
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- 1506 Parametric empirical Bayes modeling in the presence of incomplete data**
 Manfred Klöbl¹, Rene Seiger¹, Thomas Vanicek¹, Patricia Handschuh¹, Murray Reed¹, Benjamin Spurny¹, Vera Ritter¹, Godber Godbersen¹, Gregor Gryglewski¹, Christoph Kraus¹, Andreas Hahn¹, Rupert Lanzenberger¹
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- 1509 The time course of semantic task processing**
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- 1510 Age-associated Sex and Asymmetry Differentiation in Regional Cortical Complexity across Adulthood**
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- 1512 Data-driven approach to dynamic resting state functional connectivity: an ENIGMA-PGC PTSD study**
 Carissa Weis¹, Courtney Haswell², Emily Clarke-Rubright², Neda Jahanshad³, Evan Gordon⁴, Lea Waller⁵, Marc Buettnner⁵, Elena Pozzi⁶, Yara Toenders⁶, Christine Larson⁷, Lianne Schmaal⁶, Ilya Veer⁵, Paul Thompson⁸, Rajendra Morey²
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- 1513 Vulnerability of inter-hemispheric functional connectivity in the aging sensorimotor network**
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- 1514 Gender Dysphoria and Autistic Traits: associations with cortical thickness**
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- 1515 When intraclass correlation is not suited for measuring test-retest reliability**
 Gang Chen¹, Daniel Pine¹, Melissa Brotman¹, Ashley Smith¹, Robert Cox¹, Simone Haller¹
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- 1516 Correlation Between Common Clinical Scales and MTR in Cervical Myelopathy**
 Christian Smith¹, Brook Mitchell¹, Liam Cleary¹, Jonathan Carmouche²
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- 1517 Variability of simple motor skills in healthy older people**
 Sophia Rickert¹, Christiane Jockwitz^{1,2}, Alfons Schnitzler^{3,4}, Svenja Caspers^{1,2,5}
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- 1518 ICA fails in network reconstruction when sources are not independent: A methodological evaluation**
 Teague Henry¹, Siva Venkadesh¹, Heman Shakeri¹, Zachary Jacokes¹, John Van Horn¹
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- 1519 Cognition and its Relationship to Patterns of Intermodal Structural Covariance in Schizophrenia**
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- 1520 Neural mechanisms of emotion regulation obesity: A study with fMRI and dynamic causal modeling**
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- 1521 Resting-state functional MRI signal fluctuations are correlated with brain amyloid- β deposition**
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- 1522 Topological Features of Task Connectivity Brain Networks Predict Age and Performance**
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- 1523 Organisational and neuromodulatory underpinnings of structure-function decoupling in Parkinson's**
Angeliki Zarkali¹, Peter McColgan², Louise Leyland², Andrew Lees², Geraint Rees², Rimona Weil²
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- 1524 Comparison of transcript levels and neurotransmitter receptor densities in human hippocampal regions**
Thomas Mühleisen^{1,2}, Ling Zhao¹, Dominique Hilger¹, Bettina Burger³, Andreas Forstner^{1,4}, Stefan Herms^{4,3}, Per Hoffmann^{4,3}, Karl Zilles¹, Katrin Amunts^{1,2}, Sven Cichon^{1,3,5}, Nicola Palomero-Gallagher^{1,2,6}
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- 1525 Granger Causality for intracranial EEG: hypothesis testing during visual discrimination task**
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- 1526 Resting State Frontal Theta Rhythms are Altered After Working Memory Task**
Tharunika Venkatesan¹, Tyler Hammond¹, Banafsheh Aghayeeabianeh¹, Hena Kachroo¹, Xiaopeng Zhao², Gregory Jicha¹, Yang Jiang¹
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- 1527 Modeling progressive neurodegeneration with deep convolutional neural networks**
Anup Tuladhar¹, Jasmine Moore¹, Nils Forkert¹
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- 1529 Auditory verbal hallucinations relate to language but not hearing according to fMRI responses**
Paola Fuentes-Claramonte¹, Joan Soler-Vidal², Pilar Salgado-Pineda¹, Maria Angeles Garcia-León¹, Nuria Ramiro³, Aniol Santo-Anglès¹, Maria Llanos Torres⁴, Josep Tristany⁵, Amalia Sanchez-Guerrero⁶, Josep Munuera⁷, Salvador Sarró¹, Raymond Salvador¹, Wolfram Hinzen⁸, Peter McKenna¹, Edith Pomarol-Clotet¹
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- 1530 Looking Across Multimodal MRI QC Measures in NKI-Rockland Pediatric Longitudinal Sample**
Ryan Lim¹, Russell Tobe¹, Anna MacKay-Brandt¹, Melissa Kramer¹, Melissa Breland¹, Kristin Trautman¹, Caixia Hu¹, Raj Sangoi¹, Lucia Tu¹, Lindsay Alexander², Vilma Gabbay³, Francisco Castellanos¹, Bennett Leventhal⁴, Richard Craddock⁵, Stanley Colcombe¹, Michael Milham², Alexandre Franco¹
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- 1532 Curation of BIDS (CuBIDS): a sanity-preserving workflow for large BIDS datasets**
Matthew Cieslak¹, Sydney Covitz¹, Tinashe Tapera¹, Azeez Adebimpe¹, Lei Ai², Maxwell Bertolero¹, Basma Jaber¹, Kristin Murtha¹, Anders Perrone³, Jenna Schabdach⁴, Jacob Vogel¹, Russell Shinohara¹, Aaron Alexander-Bloch¹, Damien Fair⁵, Michael Milham², Theodore Satterthwaite¹
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- 1533 Design Issues and Solutions for Stopping Data from the Adolescent Brain Cognitive Development Study**
Patrick Bissett¹, McKenzie Hagen¹, Henry Jones¹, Russell Poldrack¹
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- 1535 An Open Longitudinal Resource for Psychiatric, Cognitive, and Neuroanatomic Pediatric Development**
Russell Tobe^{1,2,3}, Anna MacKay-Brandt^{1,3}, Ryan Lim¹, Melissa Kramer¹, Melissa Breland¹, Kristin Trautman¹, Caixia Hu¹, Raj Sangoi¹, Lucia Tu¹, Lindsay Alexander², Vilma Gabbay^{1,4}, Francisco Castellanos^{1,5}, Bennett Leventhal⁶, Richard Craddock⁷, Stanley Colcombe^{1,8}, Alexandre Franco^{1,2,8}, Michael Milham^{1,2}
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- 1536 Load-Dependent Differences in Phase Locking during the Working Memory Delay Period**
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- 1537 Creating Layered Surfaces to Visualize with AFNI + SUMA, with applications to laminar fMRI**
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- 1540 Denoising physiological data collected during multi-band, multi-echo EPI sequences**
Katherine Bottenhorn¹, Taylor Salo¹, Michael Riedel¹, Erica Musser¹, Jennifer Robinson², Matthew Sutherland¹, Angela Laird¹
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- 1542 Network controllability in transmodal cortex predicts positive psychosis spectrum symptoms**
Linden Parkes¹, Tyler Moore¹, Monica Calkins¹, Matthew Cieslak¹, David Roalf¹, Daniel Wolf¹, Ruben Gur¹, Raquel Gur¹, Theodore Satterthwaite¹, Danielle Bassett¹
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- 1543 Trade-offs between classification performance and interpretability in deep learning for EEG signals**
Florence Aellen¹, Athina Tzovara¹
¹University of Bern, Bern, Bern
- 1544 Edge community structure of functional MRI and meta-analytic activation**
Joshua Faskowitz¹, Thomas Varley¹, Richard Betzel¹, Olaf Sporns¹
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- 1545 Foundations for affect-based mental health neuroimaging studies in the UK Biobank**
Rosie Dutt¹, Ty Easley¹, Kayla Hannon¹, Wei Zhang¹, Joseph Griffiss¹, Janine Bijsterbosch¹
¹Washington University in St. Louis, Saint Louis, MO, USA
- 1546 The impact of acute and severe hypoxia observed by pCASL MR brain imaging on Compact 3T MRI scanner**
Daehun Kang¹, Koji Uchida¹, Clifton Haider¹, Erin Gray¹, MyungHo In¹, Joshua Trzasko¹, Norbert Campeau¹, Kirk Welker¹, Jeffrey Gunter¹, Yunhong Shu¹, Matt Bernstein¹, Max Trenerry¹, David Holmes III¹, Michael Joyner¹, Timothy Curry¹, John Huston III¹
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- 1547 A Synergistic Core for Human Brain Evolution and Cognition**
Andrea Luppi¹, Pedro Mediano¹, Fernando Rosas², Negin Holland¹, Tim Fryer¹, John O'Brien¹, James Rowe¹, David Menon¹, Daniel Bor¹, Emmanuel Stamatakis¹
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- 1548 Three cortical networks for perceptual, semantic, and social processing of faces**
Asa Borzabadi Farahani¹, Elahe' Yargholi², Gholam-Ali Hossein-Zadeh¹, Reza Rajimehr³
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- 1549 Frequency-specific alterations in resting brain activity and connectivity in temporal lobe epilepsy**
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- 1552 Corticospinal excitability and conductivity are related to the anatomy of the corticospinal tract**
Sonia Betti¹, Marta Fedele², Umberto Castiello¹, Luisa Sartori¹, Sanja Budisavljevic³
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- 1553 A reduction of the excitation:inhibition balance in association cortex during adolescence**
Bart Larsen¹, Zaixu Cui¹, Azeez Adebimpe², Jakob Seidlitz³, Adam Pines¹, Max Bertolero², Ruben Gur², Raquel Gur², Daniel Wolf², Theodore Satterthwaite²
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- 1554 Traumatic Brain Injury Accelerates Brain Aging: A Longitudinal DoD ADNI Study**
Emily Dennis¹, James Cole², Jason Staph³, Frank Hillary³, David Tate¹, Elisabeth Wilde¹
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- 1555 Spatial and temporal autocorrelation reproduce subject-level topology of the functional connectome**
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- 1556 Prediction of adverse 2-year outcomes in neonatal HIE from brain MRI clinically read as 'normal'**
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- 1557 Meta Regression for Coordinate Based Meta Analysis Data with a Spatial Model**
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- 1558 Longitudinal changes in structural connectivity in young people at high risk of bipolar disorder**
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- 1559 Probing the Hemispheric Asymmetry of Representations in Bilateral "Inferior Temporal Numeral Areas"**
Darren Yeo^{1,2}, Courtney Pollack^{1,3}, Benjamin Conrad¹, Gavin Price¹
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- 1560 Effect of repeated blocks of transcranial magnetic stimulation (TMS) on fronto-striatal connectivity**
Usman Jawed Shaikh¹, Antonello Pellicano¹, Andre Schüppen¹, Oliver Winz², Alexander Heinzl², Felix Mottaghy², Ferdinand Binkofski¹
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- 1561 The Emergence of Head Direction Signals in a Complex Environment**
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- 1562 Perturbation of Functional Connectivity Allows Prediction of rTMS Therapeutic Effect in TRD**
Ruiyang Ge¹, Elizabeth Gregory¹, Afifa Humaira¹, Rebecca Todd¹, Sean Nestor², Sophia Frangou^{1,3}, Fidel Vila-Rodriguez¹
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- 1565 Aberrant Functional Connectivity Underlying Semantic Cognition and Episodic Memory in Parkinson's**
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- 1566 Effect of Normobaric Hypoxia on Spontaneous EEG Power Spectra**
Evan Hutcheon¹, Adonay Nunes², Vasily Vakorin¹, Urs Ribary¹, Sherri Ferguson¹, Victoria Claydon¹, Sam Doesburg¹
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- 1567 Cerebral hierarchical functional structure in elders and its association with vascular oxygenation**
Hechun Li¹, Jian Hu¹, Hui He¹, Dezhong Yao¹, Cheng Luo¹
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- 1568 Ascending arousal system shapes low-d network dynamics mediating conscious awareness**
Brandon Munn¹, Eli Müller¹, Gabriel Wainstein¹, Russell Poldrack², James Shine¹
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- 1569 Accommodating site variation in neuroimaging data using hierarchical and Bayesian models**
Johanna Bayer^{1,2}, Richard Dinga³, Seyed Mostafa Kia⁴, Akhil Kottaram², Thomas Wolfers⁵, Jinglei Lv⁶, Andrew Zalesky⁷, Lianne Schmaal², Andre Marquand³
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- 1571 Mapping Language & Theory of Mind in the White Matter Association Tracts of 809 Brains**
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- 1572 Hierarchical Bayesian modelling for the inference of group-level brain states using functional MRI**
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- 1573 Precise patterns of reliability in functional brain networks**
Shefali Rai¹, Kirk Graff¹, Signe Bray¹
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- 1574 Characterizing Macrovascular Contributions to Resting-state fMRI**
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- 1575 Connectome-based Predictive Modeling with Missing Connectivity Data Using Robust Matrix Completion**
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- 1576 Bipolar disorder patients showed altered effective connectivity – a triple-network based study**
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- 1577 A Deep Learning Based Comparison of Response to TMS Treatment for Sex Differences in MDD Subjects**
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- 1578 Delay discounting associations with valuation and control system connectivity in healthy adults**
Kavinash Loganathan¹, Jinglei Lv², Vanessa Cropley³, Eric Ho¹, Andrew Zalesky³
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- 1579 Stroop interference as a function of task, design and cognitive demand: a neuroimaging meta-analysis**
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- 1582 Multimodal fusion based parcellation of the human thalamus**
Gang Li^{1,2}, Luqi Cheng^{1,3}, Yuheng Lu^{1,2}, Kaixin Li^{1,4}, Weiyang Shi^{1,2}, Tianzi Jiang^{1,2,5}, Lingzhong Fan^{1,2,5}
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- 1585 Regional differences in cerebral BOLD signal response induced by severe transient hypoxia**
Daehun Kang¹, Koji Uchida¹, Clifton Haider¹, Erin Gray¹, MyungHo In¹, Joshua Trzasko¹, Norbert Campeau¹, Kirk Welker¹, Jeffrey Gunter¹, Yunhong Shu¹, Matt Bernstein¹, Max Trenerry¹, David Holmes III¹, Michael Joyner¹, Timothy Curry¹, John Huston III¹
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- 1587 Reduced Functional Connectivity after Non-invasive Vagus Nerve Stimulation in Chronic Pancreatitis**
Tine Hansen^{1,2}, Janusiya Muthulingam^{1,2}, Søren Olesen^{3,2}, Asbjørn Drewes^{4,2}, Jens Frøkjær^{1,2}
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- 1588 ENIGMA HALPipe: Fast, interactive, and reproducible analysis for functional MRI data**
Lea Waller¹, Susanne Erk¹, Elena Pozzi^{2,3}, Courtney Haswell⁴, Yara Toenders^{3,2}, Marc Büttner¹, Lianne Schmaal^{3,2}, Rajendra Morey⁴, Henrik Walter¹, Ilya Veer¹
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- 1589 High-order and domain-specific pathways for dynamic visual stimulus processing in working memory**
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- 1591 Brain network similarity: Methods and applications**
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- 1592 Diurnal Variations in Vascular Regulation of Healthy Adult Brain Based on Time-shifted Rs-fMRI**
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- 1593 What is the best data augmentation for 3D brain tumor segmentation?**
Marco Domenico Cirillo^{1,2}, David Abramian^{1,2}, Anders Eklund^{1,3,2}
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- 1594 Thalamocortical excitability modulation guides human perception under uncertainty**
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- 1595 Development of selective stopping in middle childhood: qualitative and quantitative changes**
Irene Rincón-Pérez¹, Susana Arroyo-Lozano², Alberto J. Sánchez-Carmona², José A. Hinojosa¹, Alberto Fernández-Jaén³, Sara López-Martín⁴, Jacobo Albert⁵
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- 1596 Chenonceau: an entire ex vivo human brain 11.7T anatomical and diffusion MRI dataset**
Alexandros Popov¹, Raïssa Yebga Hot¹, Justine Beaujoui¹, Ivy Uszynski¹, Fawzi Boumezeur¹, Fabrice Poupon¹, Christophe Destrieux², Cyril Poupon¹
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- 1598 Decoding means and outcome during action observation: a multivariate fMRI study**
Settimio Ziccarelli¹, Antonino Errante¹, Gloria Mingolla¹, Leonardo Fogassi¹
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- 1599 Affective Processing Effects on Whole-Brain Functional Speech Networks Change with Age**
Jana Schill¹, Peter Soros¹, Kristina Simonyan², Christiane Thiel¹, Karsten Witt¹
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- 1600 A virtual histology and genetics approach investigating excitatory/inhibitory imbalance in autism**
Viola Hollestein¹, Jan Buitelaar¹, Christine Ecker², Thomas Bourgeron³, Geert Poelmans¹, Jill Naaijen¹
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- 1601 Prediction of the performance on decision-making behavior using VBM and dynamic regression model**
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- 1602 A new superficial white matter connectivity atlas of the chimpanzee brain**
Maëlig Chauvel¹, Ivy Uszynski¹, William Hopkins², Jean-François Mangin¹, Cyril Poupon¹
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- 1603 Inhibitory synaptic loss and network dysfunction in MS: an ex-vivo to in-silico translational study**
Marijn Huiskamp¹, Prejaas Tewarie¹, Svenja Kiljan¹, Shanna Kulik¹, Laura Jonkman¹, John Bol¹, Geert Schenk¹, Hanneke Hulst¹, Jeroen Geurts¹, Menno Schoonheim¹
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- 1604 Adaptive working memory updating training does not promote brain grey matter changes**
Katerina Pappa¹, Jonathan Evans¹, Satu Baylan¹, Kristin Flegal¹
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- 1605 Establishing a Role of the Semantic Control Network in Social Cognition: a Meta-analysis**
Veronica Diveica¹, Kami Koldewyn¹, Richard Binney¹
¹Bangor University, Bangor, Wales
- 1606 Deep Learning-Based Substantia Nigra Neuromelanin MRI Biomarker for Parkinson's Disease Patients**
RAHUL GAURAV^{1,2,3}, Romain Valabregue^{1,2}, Nadya Pyatigorskaya^{1,2,3,4}, Lydia Yahia-Cherif^{1,2}, Emma Biondetti^{1,2,3}, Graziella Mangone^{2,5}, R. Matthew, Hutchison⁶, Jean-Christophe Corvol^{2,5,7}, Marie Vidailhet^{2,3,7}, Stéphane Lehericy^{1,2,3,4}
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- 1607 Anterior-posterior shift of hippocampus structural covariance across development: a multicohort study**
Anna Plachti¹, Robert Latzman², Somayah Maleki Balajoo³, Felix Hoffstaedter⁴, Kathrine Skak Madsen^{1,5}, William Frans Christiaan Baaré^{1,5}, Hartwig Siebner^{1,6}, Simon Eickhoff^{7,8}, Sarah Genon^{9,10}
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- 1608 Beyond broadband: towards a spectral decomposition of EEG microstates**
Victor Férat¹, Martin Seeber¹, Christoph Michel², Tomas Ros²
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1610 Atlas of functional connectivity relationships across genetic variants and psychiatric conditions

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1611 Neural basis of learning-related metacognition: Task-induced changes in resting state networks

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1612 Effective tuning of inter-regional connectivity through changes in local oscillatory dynamics

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1613 Ventral Striatum and Orbitofrontal Cortex Mediate Emotion-cognition Integration during Inhibition

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1614 Mapping primate brains across species via common sulci: A sulcal-based surface mapping approach

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1615 Nigrosome 1 in the substantia nigra: toward unifying its definition in histology and MRI

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1616 Brain Network Reconfiguration as Marker of General Intelligence?

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1617 From brain activation to semantic representations: a cumulative approach

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1619 Regional brain iron and gene expression shed light on neurodegeneration in Parkinson's disease

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1620 Investigating the long-lasting impact of motherhood on white matter in the human brain

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- 1621 Machine Learning Reveals Multimodal MRI Signatures Associated with Handedness**
 Pattarawat Chormai^{1,2}, Xiang-Zhen Kong^{3,4}, Simon Fisher^{4,5}, Clyde Francks^{4,5}
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- 1622 Using qMRI to characterize lesioned tissues in MS patients: a longitudinal study**
 Nora Vandeleene¹, Christophe Phillips¹, Emilie Lommers², Pierre Maquet², Evelyne Baiteau²
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- 1623 Simultaneous blind estimation of global fluctuations and neuronal-related activity from fMRI data**
 Eneko Uruñuela¹, Stefano Moia¹, César Caballero-Gaudes¹
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- 1624 Depressive symptoms and white matter structure in older adults with and without diabetes mellitus**
 Ruth Kerkhoff¹, Christiane Jockwitz^{1,2}, Jan Schreiber², Andrea Icks^{3,4,5}, Svenja Caspers^{1,2,6}
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- 1625 Individualized alpha frequency rTMS to the inferior frontal junction enhances visual search**
 Bruce Luber¹, Lysianne Beynel¹, Lawrence Appelbaum², Zhi-De Deng¹, Tristan Jones², Austin Harrison², Eric Lo², Andy McKinley³, Sarah Lisanby¹
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- 1626 Classification and prediction of cognitive performance differences in older age**
 Camilla Krämer^{1,2}, Christiane Jockwitz^{1,2}, Johanna Stumme^{1,2}, Lucas Campos¹, Christian Rubbert³, Julian Caspers³, Svenja Caspers^{1,2,4}
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- 1627 Altered default mode network in type 1 diabetes with diabetic peripheral neuropathy**
 Suganthiya Croosu^{1,2}, Tine Hansen^{1,2}, Asbjørn Drewes^{3,2}, Christina Brock^{4,2}, Jens Frøkjær^{3,2}
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- 1631 Fingerprinting and Behavioral Prediction Rest on Distinct Functional Systems of the Human Connectome**
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- 1632 Interleukin 8 and Default Mode Network Functional Connectivity in Aging and Alzheimer's Disease**
 Skylar Walters¹, Maria Misiura², J Howell³, Danielle Verble³, Amber Tannahill¹, Whitney Wharton¹, Jessica A. Turner⁴, Vonetta Dotson¹, William Hu⁵
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- 1633 Association between long-term air pollution, traffic noise and resting-state brain connectivity**
 Lina Glaubitz¹, Johanna Stumme², Sarah Lucht¹, Susanne Moebus³, Sara Schramm⁴, Christiane Jockwitz⁵, Barbara Hoffmann¹, Svenja Caspers⁵
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- 1634 VASO reveals distinct layer-connectivity between digit-representations in BA3b**
 Sebastian Dresbach¹, Renzo Huber¹, Rainer Goebel¹, Amanda Kaas¹
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- 1636 InLang: unraveling the functional attributes of the language connectome**
 Elise ROGER¹, Lilian Rodrigues de Almeida¹, Hélène Loevenbruck¹, Marcela Perrone-Bertolotti¹, Emilie Cousin¹, Jean-Luc Schwartz¹, Pascal Perrier¹, Marion Dohen¹, Pierre Baraduc¹, Cédric Pichat¹, Sophie Achar¹, Monica Baciu¹
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- 1637 Quantification of T2 relaxation in vivo and post mortem at 7 Tesla using a dictionary approach**
 Jochen Schmidt^{1,2}, Dvir Radunsky³, Patrick Scheibe¹, Evgeniya Kirilina¹, Ruth Stassart⁴, Christian Eisenlöffel⁴, Carsten Jäger^{1,5}, Markus Morawski^{5,1}, Noam Ben-Eliezer^{3,6,7}, Nikolaus Weiskopf^{1,8}, Robert Trampel¹
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- 1638 Contextual conditioning in posttraumatic stress disorder: an fMRI study using virtual reality**
 Sebastian Siehl^{1,2,3}, Manon Wicking^{2,4}, Sebastian Pohlack², Tobias Winkelmann², Francesca Zidda², Frauke Steiger-White², Frauke Nees^{1,2}, Herta Flor²
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- 1640 Linking Individual Differences in Personalized Functional Topography to Psychopathology in Youth**
 ZAI XU Cui¹, Adam Pines¹, Hongming Li¹, Tyler Moore¹, Azeez Adebimpe¹, Jacob Vogel¹, Sheila Shanmugan¹, Bart Larsen¹, Max Bertolero¹, Cedric Xia¹, Raquel Gur¹, Ruben Gur¹, Desmond Oathes¹, Aaron Alexander-Bloch¹, Michael Milham², Giovanni Salum³, Monica Calkins¹, David Roalf¹, Russell Shinohara¹, Daniel Wolf¹, Christos Davatzikos¹, Danielle Bassett¹, Damien Fair⁴, Yong Fan¹, Theodore Satterthwaite¹
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- 1641 Reduced Functional Alignment with Anatomy During Cognitive Switching in Systemic Lupus Erythematosus**
 Xing Qian¹, Danielle Bassett^{2,3}, Kwun Kei Ng¹, Beatrice RY Loo¹, Amelia J Koh¹, Roger Chun-man Ho⁴, Anselm Mak^{5,6}, Juan Helen Zhou^{1,7,8,9}
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- 1642 Mapping the Coupling of Cerebral Blood Flow-Amplitude of Low Frequency Oscillations in Youth**
 Erica Baller¹, Azeez Adebimpe¹, Alessandra Valcarcel¹, Aaron Alexander-Bloch¹, Zaixu Cui¹, John Detre¹, Ruben Gur¹, Raquel Gur¹, Bart Larsen¹, Kristin Linn¹, Carly O'Donnell¹, Adam Pines¹, Armin Raznahan², David Roalf¹, Tinashe Taper¹, Simon Vandekar³, Russell Shinohara¹, Theodore Satterthwaite¹
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- 1643 Individual modeling of neurophysiological brain connectivity**
 Shanna Kulik¹, Linda Douw¹, Edwin van Dellen², Martijn Steenwijk¹, Jeroen Geurts¹, Cornelis Stam¹, Arjan Hillebrand¹, Menno Schoonheim¹, Prejaas Tewarie³
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- 1644 Multi-scale Structural Imaging of Alzheimer's Disease Neurodegeneration**
 Ikbeom Jang^{1,2}, Binyin Li^{1,2,3}, Joost Riphagen^{1,2,4}, Bradford Dickerson^{1,2}, David Salat^{1,2,5}
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- 1645 Whole-brain Diffusion MRI Mega-Analysis in Idiopathic Generalized Epilepsy**
 Barbara Kreilkamp^{1,2}, Christina Stier¹, Erik Rauf¹, Peter Dechent³, Niels Focke¹
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- 1646 Predicting phenotypes based on high-dimensional resting state networks in individuals from big data**
 Seyedeh-Rezvan Farahibozorg¹, Samuel Harrison^{2,1,3}, Janine Bijsterbosch⁴, Fidel Alfaró-Almagro¹, Weikang Gong¹, Saad Jbabdi¹, Stephen Smith¹, Mark Woolrich^{5,1}
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- 1647 The neural correlates of volatile prediction learning in autism: behavior, models, fMRI and MRS**
 Laurie-Anne Sapey-Triomphe¹, Joke Temmerman¹, Lauren Pattyn¹, Johan Wagemans¹
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- 1648 Improvement of brain atrophy evaluation using optimized brain masking**
 Jessica Lebenberg^{1,2}, Antoine Guillonnet³, Jean-Pierre Guichard³, Abbas Taleb³, Nathalie Dias-Gastellier^{1,2,3}, Hugues Chabriat^{1,2,3}, Eric Jouvent^{1,2,3}
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- 1649 New Algorithmic Approaches and GPU Computing for Voxel-wise Heritability and Genome-Wide Association**
 Kathryn Hatch¹, Brian Donohue¹, Tianzhou Ma², Shuo Chen¹, Yizhou Ma¹, Si Gao¹, Elliot Hong¹, Neda Jahanshad³, Paul Thompson⁴, Peter Kochunov¹
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- 1650 Functionnectome: a framework to analyse the contribution of brain circuits to fMRI**
 Victor Nozais¹, Stephanie Forkel¹, Chris Foulon², Laurent Petit¹, Michel Thiebaut de Schotten³
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- 1651 IDConn: A Python pipeline for investigating individual differences in functional brain connectivity**
 Katherine Bottenhorn¹, Taylor Salo¹, Jessica Bartley¹, Jessica Flannery¹, Matthew Sutherland¹, Angela Laird¹
¹Florida International University, Miami, FL
- 1653 The Bermuda Triangle of d- and f-MRI sailors - software for susceptibility distortions (SDCFlows)**
 Oscar Esteban¹, Azeez Adebimpe², Christopher Markiewicz³, Mathias Goncalves⁴, Ross Blair⁵, Matthew Cieslak², Mikael Naveau⁶, Kevin Sitek⁷, Markus Sneve⁸, Céline Provins⁹, Eilidh MacNicol¹⁰, Theodore Satterthwaite², Russell Poldrack¹¹
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- 1654 Mean-field modeling of brain-scale dynamics for the evaluation of EEG source-space networks**
 Sahar Allouch^{1,2}, Maxime Yochum², Aya Kabbara², Joan Duprez², Mohamad Khalil¹, Fabrice Wendling², Mahmoud Hassan³, Julien Modolo²
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- 1655 Genetic & phenotypic similarity to neuropsychiatric illness predicts life satisfaction in UKBioBank**
 Kathryn Hatch¹, Yizhou Ma¹, Si Gao¹, Chen Mo², Zhenyao Ye³, Krystl Haerian⁴, Paul Thompson⁵, Neda Jahanshad⁶, Elliot Hong¹, Peter Kochunov¹
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- 1656 Brain volume from 3D ultrasound for fetal growth assessment using deep convolutional neural networks**
 Felipe Moser¹, Marianne van der Vaart², Aris Papageorgiou³, Bartlomiej Papiez⁴, Ana Namburete¹
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- 1657 Consistent sex classification accuracies across independent datasets**
 Lisa Wiersch^{1,2}, Kaustubh Patil^{1,2}, Simon Eickhoff^{1,2}, Susanne Weis^{1,2}
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- 1658 Perivascular spaces and tau pathophysiology in early Alzheimer's continuum**
 Natalia Vilor-Tejedor^{1,2,3,4}, Iacopo Ciampa⁵, Grégory Operto^{1,6,7}, Carles Falcón^{1,6,8}, Marc Suárez-Calvet^{1,6,7,9}, Marta Crous-Bou^{1,10,11}, Mahnaz Shekari^{1,4,6}, Eider Arenaza-Urquijo^{1,7,6}, Marta Milà-Alomà^{1,4,6,7}, Oriol Rivera-Grau^{1,6,7,9}, Carolina Minguillón^{1,6,7}, Gwendlyn Kollmorgen¹², Ivonne Suridjan¹³, Henrik Zetterberg^{14,15,16,17}, Kaj Blennow^{14,18}, Roderic Guigo^{2,4}, Jose Luis Molinuevo¹, Juan D. Gisbert^{1,4,6,19}
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- 1659 Stroke-related alterations in inter-areal communication revealed via Granger causality analysis**
 Allegra Michele¹, Chiara Favaretto², Maurizio Corbetta², Andrea Brovelli³, Nicholas Metcalfe⁴
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- 1660 Reduced Frontostriatal Functional Connectivity in 41- to 70-Year-Old Adults With HIV**
 Shiva Hassanzadeh-Behbahani¹, Fan Yang¹, Margarita Bronshteyn¹, Matthew Dawson², Princy Kumar¹, John VanMeter¹, David Moore², Ronald Ellis², Xiong Jiang¹
¹Georgetown University, Washington, DC, ²University of California, San Diego, San Diego, CA
- 1661 The ventral intraparietal area (VIP): towards understanding macaque-human homology**
 Celia Foster¹, Wei-An Sheng², Suliann Ben Hamed², Tobias Heed¹
¹Bielefeld University, Bielefeld, Nordrhein-Westfalen, ²Institut des Sciences Cognitives Marc Jeannerod, Bron, Auvergne-Rhône-Alpes
- 1662 Differential Recruitment of Hippocampal Subfields as a Function of Delay Period Duration**
 Timothy Ellmore¹, Jefferson Ortega¹, Bernard Gomes², Chelsea Reichert Plaska³
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- 1663 Distinct Phonemic vs Acoustic Representations of Dichotic Stimuli**
 Basil Preisig¹, Lars Riecke², Alexis Hervais-Adelman¹
¹University of Zurich, Zurich, Switzerland, ²University of Maastricht, Maastricht, The Netherlands
- 1665 A deep learning model for data-driven discovery of functional connectivity**
 Usman Mahmood¹, Zening Fu¹, Vince Calhoun², Sergey Plis¹
¹Georgia State University, Atlanta, GA, ²GSU/GATech/Emory, Atlanta, GA
- 1666 Simultaneous optimisation of MP2RAGE UNI & FLAWS images at 7T with Extended Phase Graph Simulations**
 Ayse Sila Dokumaci¹, Fraser R. Aitken¹, Jan Sedlacik¹, Philippa Bridgen¹, Raphael Tomi-Tricot^{1,2}, Tom Wilkinson¹, Ronald Mooiweer¹, Sharon Giles¹, Joseph V. Hajnal¹, Shaihan Malik¹, Jonathan O'Muircheartaigh¹, David W. Carmichael¹
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- 1667 Differential contributions of thalamostriatal connectivity to flexible, goal-directed behaviours**
 Brendan Williams¹, Tiffany Bell², Anastasia Christakou¹
¹University of Reading, Reading, United Kingdom, ²University of Calgary, Calgary, Alberta
- 1668 The effects of regular sports exercise on human brain structure**
 Fabio Richlan¹, Sara Fernandez¹, Manuel Schabus¹, Florian Hutzler¹
¹University of Salzburg, Salzburg, Austria
- 1669 Brain Network Integrity and Emotional-Behavioral Symptoms in Youth with Perinatally-acquired HIV**
 Gabriella Caceres¹, Kathleen Malee², Renee Smith³, Paige Williams⁴, Lei Wang¹, Lisanne Jenkins¹
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- 1670 White Matter Alterations in Noise-Induced Tinnitus: Insights from Deep and Manifold Learning**
 Chloe Jaroszynski¹, Arnaud Attyé², Chantal Delon-Martin³, Agnès Job⁴
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- 1671 Effects of APOE genotype on subcortical volume: A study of 41,615 MRI scans from the UK Biobank**
 Alexandra Muir¹, Chris Ching¹, Vigneshwaran Santhalingam¹, Zvart Abaryan², Alyssa Zhu¹, Sophia Thomopoulos¹, Neda Jahanshad¹, Paul Thompson¹
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- 1672 Schaefer-Yeo-AFNI-2021 Atlases: Improved ROIs with AFNI+SUMA Processing**
 Daniel Glen¹, Richard Reynolds¹, Paul Taylor², Xiaozhen You³, Ruby Kong⁴, Aihui Xue⁴, Xiaoxuan Yan⁴, B.T. Thomas Yeo⁵
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- 1673 Brain Network Decomposition for Naturalistic Stimulus Paradigm**
 Yijun Liu¹, Jian Li^{2,3,4}, Jessica Wisnowski^{5,6}, Anand Joshi¹, Richard Leahy¹
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- 1674 Brainstem Dysfunction in Healthy Aging**
 Susanne Mueller¹, Angela Muller¹
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- 1675 Working memory is linked with default mode network deactivation and real-world money saving behavior**
 Ranjita Poudel¹, Michael Riedel¹, Taylor Salo¹, Jessica Flannery¹, Lauren Hill-Bowen¹, Angela Laird¹, Carlos Parra¹, Matthew Sutherland¹
¹Florida International University, Miami, FL

- 1676 Cognitive Enrichment Prevents Age-related Axonal Dispersion and Mitigates Attention Deficits**
 Méadhbh Brosnan^{1,2,3}, Nir Shalev^{1,2,3}, Jivesh Ramduny⁴, Stamatios Sotiropoulos^{3,5,6}, Magdalena Chechlac^{7,8}
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- 1677 A fiber clustering-based atlas of the chimpanzee deep brain structural connectivity using diffusion**
 Maëlig Chauvel¹, Ivy Uszynski¹, William Hopkins², Jean-François Mangin¹, Cyril Poupon¹
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- 1678 COVID19 effects on brain tissue microstructure: Longitudinal study using diffusion MRI**
 J. Jean Chen¹, Jordan Chad¹, Xiang Ji², Bradley MacIntosh³, Asaf Gilboa¹, Eugenie Roudaia¹, Allison Sekuler¹, Benjamin Lam², Chris Heyn², Sandra Black², Simon Graham³
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- 1679 Skilled but not simple motor practice leads to myelin plasticity in the human brain**
 Sarah Kraeutner¹, Cristina Rubino¹, Brian Greeley², Shie Rinat¹, Jennifer Ferris³, Bimal Lakhani¹, Lara Boyd¹
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- 1681 Asymmetric neural dynamics characterize loss and recovery of consciousness**
 Zirui Huang¹, Vijay Tarnal¹, Phillip Vlisides¹, Ellen Janke¹, Amy McKinney¹, Paul Picton¹, George Mashour¹, Anthony Hudetz¹
¹University of Michigan Medical School, Ann Arbor, MI
- 1682 Reduced Error-Related Default Mode Network Deactivations Linked with HIV and Medication Management**
 Jessica Flannery¹, Michael Riedel¹, Taylor Salo¹, Ranjita Poudel¹, Angela Laird¹, Raul Gonzalez¹, Matthew Sutherland¹
¹Florida International University, Miami, FL
- 1683 Implications of Early Physical Activity on Functional Connectivity After a Pediatric Concussion**
 Katherine Healey^{1,2}, Zhuo Fang³, Andra Smith³, Roger Zemek⁴, Andrée-Anne Ledoux^{1,5,3,2}
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- 1685 Neural source modeling prevents removal of neural activity during confound regression with fMRI**
 Gabriel Desrosiers-Gregoire^{1,2}, Gabriel Devenyi^{1,3}, Joanes Grandjean⁴, M. Mallar Chakravarty^{1,3,5}
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- 1688 Cortical functional connectomics describe genetic-evolutionary features of the human brain**
 Elisenda Bueicheku¹, Jose Gonzalez-de-Echavarri^{2,1}, Laura Ortiz-Teran^{3,1}, Victor Montal^{4,1,5}, Federico d'Oleire uquillas^{6,1}, Lola De Marcos^{7,1}, William Orwig⁸, Chan-Mi Kim^{1,9}, Elena Ortiz-Teran^{10,1}, Silvia Basaia^{11,1}, Ibai Diez^{1,9}, Jorge Sepulcre^{1,9}
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- 1690 Large Lesion Brain Alignment with AFNI**
 Daniel Glen¹, Jacob Levenstein¹, Michael Granovetter², Ann Margaret Maallo², Marlene Behrmann²
¹NIMH, Bethesda, MD, ²Carnegie Mellon University, Pittsburgh, PA
- 1691 Heritability of Hippocampal Structural and Functional Organization**
 Şeyma Bayrak^{1,2,3}, Reinder Vos de Wael⁴, Neda Bernasconi⁴, Andrea Bernasconi⁴, Benoit Caldairou⁴, H. Lina Schaare^{1,2}, Boris Bernhardt⁴, Sofie Valk^{1,2}
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- 1692 Mapping cortical-depth-dependent vascular responses in cerebral amyloid angiopathy with 7T fMRI**
 Jennifer Yeo¹, Nana Frimpong², Aina Frau-Pascual^{2,3}, Mitchell Horn², Isik Karahanoglu^{2,3}, Suk-Tak Chan^{2,3}, Andrew Warren², Susanne van Veluw^{2,3}, Edip Gurol^{2,3}, Jonathan Polimeni^{2,3}, Steven Greenberg^{2,3}, Jingyuan Chen^{2,3}
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- 1693 Individualized prediction of future cognition using baseline developmental cortical changes**
 Budhachandra Khundrakpam¹, Linda Booij², Jussi Tohka³, Alan Evans¹
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- 1695 Mapping subcortical functional connectome of the default mode network for targeted neuromodulation**
 Jian Li^{1,2,3}, William Curley³, Bastien Guerin^{1,2}, Darin Dougherty⁴, Adrian Dalca^{1,2,5}, Brian Edlow^{1,3}
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- 1697 Resilience of the Infant Brain**
 Maryam Ghanbari¹, Guoshi Li¹, Hoyt Patrick Taylor¹, Sahar Ahmad¹, Zhengwang Wu¹, Li Wang¹, Gang Li¹, Weili Lin¹, Pew-Thian Yap¹
¹Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
- 1698 Melatonin Dose Correlates with More Lo Deep Sleep in a Military PTSD Population**
 Julie Onton¹, Lu Le²
¹University of California, San Diego, SAN DIEGO, CA, ²VA San Diego Healthcare Systems, SAN DIEGO, CA
- 1699 White matter networks predict development of reading and math abilities**
 Ethan Roy¹, Adam Richie-Halford², Manjari Narayan¹, John Kruper², Ariel Rokem², Jason Yeatman¹
¹Stanford University, Stanford, CA, ²University of Washington, Seattle, WA
- 1700 Putamen connectivity in aging and Alzheimer's Disease**
 Maria Misiura¹, Amber Tannahill², J Howell³, Whitney Wharton², Danielle Verble³, Henrik Zetterberg⁴, William Hu⁵, Jessica A. Turner⁶
¹Georgia State University, Marietta, GA, ²Georgia State University, Atlanta, GA, ³Emory University, Atlanta, GA, ⁴Institute of Neuroscience and Physiology, University of Gothenburg, Mölndal, Sweden, ⁵Rutgers University, New Brunswick, NJ, ⁶Tri-institutional Center for Translational Research in Neuroimaging and Data Science (TRENDS), Atlanta, GA
- 1701 Evaluating the reliability of diffusion-MRI based tractometry**
 John Kruper¹, Jason Yeatman², Adam Richie-Halford¹, David Bloom¹, Mareike Grotheer³, Sedy Caffarra⁴, Gregory Kiar⁵, Iliana Karipidis², Ethan Roy², Ariel Rokem¹
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- 1702 Loss of differentiation and complexity in the sleeping human brain: a multi-scale analysis**
 Andrea Pigorini¹, Ezequiel Mikulan¹, Simone Russo¹, Anna Cattani¹, Sara Parmigiani¹, Matteo Fecchio², Annalisa Rubino³, Flavia Zauli¹, Chiara Campana³, Jacopo Favaro⁴, Jacopo Lanzone⁵, Federica Amico³, Alessandro Viganò⁶, Ivana Sartori³, Simone Sarasso¹, Lino Nobili⁷, Marcello Massimini¹
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- 1703 GPU optimization of Empirical Kinship Algorithms for Big Data Imaging Genetic Analyses**
 Si Gao¹, Brian Donohue¹, Kathryn Hatch¹, Yizhou Ma¹, Elliot Hong¹, Shuo Chen², Tianzhou Ma¹, Peter Kochunov¹
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1704 Altered network stability in progressive supranuclear palsy and frontotemporal dementia

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1705 Polyneuro Risk Scores of Executive Function Show Widely Distributed Effects Across the Whole Brain

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1706 Prior surgery decreases fMRI language dominance in patients with gliomas affecting Broca's area

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1707 Resting State Global Functional Connectivity as a Predictor of Outcome in Resective Epilepsy Surgery

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1708 Task-evoked Negative BOLD Response in Human Visual Cortex Regions

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1709 Effects of Aging on Arterial Transit Time and Perfusion based on Multi-delay Pseudo-Continuous ASL

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1710 Artificial Intelligence in Brain MRI Analysis of Alzheimer's Disease and Aging

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1711 The cross-correlation between the rsfMRI signal and EEG vigilance in eyes-open and eyes-closed

Yixiang Mao¹, Thomas Liu²

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1712 Resting-state functional connectivity in individuals with Compulsive Sexual Behavior Disorder

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- 1713 Altered brainstem functional connectivity is linked to gastric peristalsis in functional dyspepsia**
 Harrison Fisher¹, Roberta Sclocco^{1,2}, Rowan Staley^{1,2}, Kyungsun Han³, April Mendez², Christopher Nguyen^{4,5}, Braden Kuo², Vitaly Napadow¹
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- 1714 The role of nucleus accumbens in stressful events: volumetric and connectivity findings**
 Yizhou Ma¹, Kathryn Hatch¹, Si Gao¹, Neda Jahanshad², Paul Thompson², Peter Kochunov¹, Elliot Hong¹
¹Maryland Psychiatric Research Center, Catonsville, MD, ²Imaging Genetics Center, University of Southern California, Marina del Rey, CA
- 1715 Frontal and Temporal Lobe Epilepsy Demonstrate Consistent Changes in the Uncinate Fasciculus**
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- 1717 The development of brain circuitry supporting conscious awareness in infancy**
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- 1718 The Role of White Matter in the Negative Symptoms of Schizophrenia**
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- 1719 Network Gradients in the Anterior Cingulate Cortex Indicates Integration Across Functional Domains**
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- 1721 Conserved and divergent connectivity principles across the primate phylogenetic tree**
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- 1722 Resting state DMN functional connectivity in collegiate football and basketball players**
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- 1723 Deep Neural Networks Reveal Category-Selectivity between Digit and Object**
 Minyoung Jung¹, Niv Lustig¹, Jong-Hwan Lee¹
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- 1724 Modifying effect of sociodemographics on prefrontal cortex and lifetime depression in 9-10 year-olds**
 Claire Campbell¹, Trevor Pickering¹, Elisabeth Burnor¹, Megan Herting¹
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- 1726 Leveraging Numerical Instabilities In Connectome Estimation For More Generalizable Models**
 Gregory Kiar¹, Yohan Chatelain², Ali Salari², Pablo de Oliveira Castro³, Eric Petit⁴, Ariel Rokem⁵, Bratislav Misic⁶, Gaël Varoquaux⁷, Alan Evans⁸, Tristan Glatard²
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- 1727 Longitudinal and cross-sectional analyses of white matter changes in the healthy aging population**
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- 1728 Bilingual advantage on executive function measured by functional connectivity and signal variability**
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1729 Identifying Sources of Software-dependent Differences in Task fMRI Analyses

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1730 Cortico-Subcortical Interactions in Overlapping Communities of Edge Functional Connectivity

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1731 Smooth graph learning for functional connectivity estimation

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1734 From correlation to communication: decomposing functional connectivity changes

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1736 BCI-Based Cognitive Training Improves Brain Functional Network Segregation in Healthy Elderly

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1737 Gender differences on neural bases of post-stop-signal adjustment

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1738 Insula response during interoception after mindfulness training in anxiety, depression, and migraine

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1739 Neural representations of first language and second language in bilinguals: an ALE meta-analysis

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1741 Deep Learning for Automated Segmentation of Diffuse White Matter Abnormality in Very Preterm Infants

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1742 White Matter Tract Atlases of a Century of Human Life

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1743 Meta-analytic connectivity modelling in adults with Autism Spectrum Disorders

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1744 Mapping cerebral abnormalities using texture analysis in ALS with T2-FLAIR MRI: a multicenter study

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1745 Integration of multi-modality MRI for early prediction of cognitive deficits using deep learning

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- 1746 Genetic Heterogeneity of Cerebellar Morphologic Anomalies in two Symptomatic Types of schizophrenia**
 Lin Chai¹, Yaping Wang², Gang Li¹, Weiyang Shi¹, Bing Liu¹, Tianzi Jiang¹, Lingzhong Fan¹
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- 1748 Brain Age Prediction Reveals Gender and Ethnicity-Dependent Brain Aging Led by Metabolic Syndromes**
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- 1749 Young and older adults exhibit a different pattern of neuroplastic changes when exposed to training**
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- 1751 The role of the right posterior parietal cortex in temporal attention**
 Qian Liao¹, Ling Li¹
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- 1752 Genetic Differential and Co-expression Support the Functional Organization of the Human Cerebellum**
 Yaping Wang^{1,2}, Lin Chai², Deying Li², Qiande Zhao², Chaohong Gao^{1,2}, Kristoffer Madsen³, Bing Liu^{2,4}, Lingzhong Fan^{2,4}
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- 1753 Causal role of Precuneus in Concreteness Effect**
 Jing Yan¹, Wenjuan Li¹, Tingting Zhang¹, Zhenlan Jin¹, Junjun Zhang¹, Ling Li¹
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- 1754 Multi-Timepoint Pattern Analysis: Decoding context-dependent brain connectivity dynamics**
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- 1755 Spatial patterns of temporal characteristics of BOLD signals encode pain discriminating information**
 Yingchao Song¹, Meng Liang¹
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- 1756 The effect of task complexity on the neural network for response inhibition - an ALE meta-analysis**
 Taraneh Aziz-Safaie^{1,2}, Veronika Müller^{1,2}, Robert Langner^{1,2}, Simon Eickhoff^{1,2}, Edna Cieslik^{1,2}
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- 1758 Global and modular abnormalities in the brain network of first-episode and chronic schizophrenia**
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- 1759 Divergent Connectional Asymmetries of the IPL Shape Hemispheric Specialization Across Primates**
 Luqi Cheng^{1,2,3}, Yuanchao Zhang¹, Gang Li^{2,3,4}, Jiaojian Wang^{1,5}, William D. Hopkins⁶, Chet C. Sherwood⁷, Gaolang Gong⁸, Linzhong Fan^{2,3,4,9}, Tianzi Jiang^{1,2,3,9,10}
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- 1760 Auditory evoked magnetic fields related to meaningful and meaningless synthetic speech words**
 Minoru Hayashi¹
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- 1761 Determining language-related regions using the "super-selective" Wada test**
 Kazuo Kakinuma¹, Shin-ichiro Osawa¹, Kazushi Ukishiro², Hiroaki Hosokawa³, Marie Oyafuso¹, Shoko Ota¹, Erena Kobayashi¹, Nobuko Kawakami¹, Dai Agari¹, Kazutaka Jin¹, Makoto Ishida¹, Takafumi Sato⁴, Mika Sakamoto⁴, Akitake Kanno¹, Kuniyasu Niizuma¹, Teiji Tominaga¹, Nobukazu Nakasato¹, Kyoko Suzuki¹
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- 1762 Synthesis-based paradigm free mapping and analysis-based total activation operate identically**
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1763 Between-network connectivity in Parkinson's disease associated with disease severity

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1764 On Autocorrelation of Task fMRI

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1765 Cerebellar dysconnectivity in drug-naïve first-episode schizophrenia

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1766 Functional Connectivity is Associated with Development in Children with Congenital Heart Disease

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1767 Transient clusters in simulated networks of heterogeneous neuronal populations

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1768 Investigating the inter-subject and spatial variability of physiological response functions in fMRI

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1770 Multimodal Brain Abnormalities Associated with Cognitive Impairment in HIV Infection

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1771 Task-general and multi-domain activation in the human thalamus

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1772 Effects of the education on the information communication in the elders

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1773 Disease Progression Modelling and Subtyping in Parkinson's

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1774 Cleaning covert sentence production activation maps with a phase-based fMRI data analysis

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1775 Shared response modelling of S1 digit representations in younger and older adults using 7T fMRI

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1776 Validation of a training pipeline designed to increase BIANCA performance and applicability

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1778 ShinySurfer: A tool for visualization and statistical analysis of cortical parameters

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- 1779 Effects of action magnitude in action representations**
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- 1780 Cortical thickness after pediatric mild traumatic brain injury: an ABCD-based retrospective study**
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- 1781 Transdiagnostic connectome-based prediction of craving**
Kathleen Garrison¹, Rajita Sinha¹, Marc Potenza¹, Siyuan Gao¹, Qinghao Liang¹, Cheryl Lacadie¹, Dustin Scheinost¹
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- 1782 CloudReg: Automatic Terabyte-Scale Cross-Modal Brain Volume Registration**
Vikram Chandrashekar¹, Daniel Tward², Devin Crowley³, Ailey Crow⁴, Matthew Wright⁴, Brian Hsueh⁴, Felicity Gore⁴, Timothy Machado⁴, Audrey Branch¹, Jared Rosenblum⁵, Karl Deisseroth⁴, Joshua Vogelstein¹
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- 1783 Exploring the cortex microstructure in newborns: A clustering approach of diffusion MRI parameters**
Flore Ginzburg¹, Maëlig Chauvel², Cindy Rolland¹, Kevin Aubrain¹, François Leroy³, Héloïse de Vareilles², Laurie Devisscher¹, Lucie Hertz-Pannier¹, Jean-François Mangin², Jessica Lebenberg⁴, Jessica Dubois¹
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- 1784 Characteristics of the Preterm Infant Connectome in the Early Postnatal Period**
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- 1786 Uncovering Individual Differences in Fine-Scale Dynamics of Functional Connectivity**
Sarah Cutts¹, Joshua Faskowitz¹, Richard Betzel¹, Olaf Sporns¹
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- 1787 Using Eye Movement as a Measure of Semantic Memory Retrieval Pattern**
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- 1788 Entropy Mapping Revealed A Common Neural Substrate for Different Substance Dependence**
Ze Wang¹
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- 1789 Sex classification models based on temporal complexity features**
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- 1790 Intra- and inter-individual differences in network connectivity during naturalistic stimulation**
Jean-Philippe Kröll^{1,2}, Kaustubh R. Patil^{1,2}, Xing Qian³, Ken Wong³, Yng Min Loke³, Michael Chee Wei Liang³, Juan Helen Zhou³, Simon Eickhoff^{1,2}, Susanne Weis^{1,2}
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- 1791 Cerebellum volumes reduction of essential tremor: The effects from confounder controlling**
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- 1792 Serotonergic modulation of task-specific functional connectivity in relearning**
Murray Reed¹, Thomas Vanicek¹, Rene Seiger¹, Manfred Klöbl¹, Patricia Handschuh¹, Vera Ritter¹, Jakob Unterholzner¹, Godber Godbersen¹, Gregor Gryglewski¹, Christoph Kraus¹, Andreas Hahn¹, Rupert Lanzenberger¹
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- 1793 The dynamic modular fingerprints of the human brain at rest**
Aya Kabbara¹, Veronique Paban², Mahmoud Hassan³
¹Université de Rennes 1, Rennes, Rennes, ²Université de Marseille, Marseille, Marseille, ³NeuroKyma, F-35000, Rennes, France
- 1794 Language and domain-general cognition in healthy and post-stroke individuals - an fNIRS study**
Natalie Gilmore¹, Swathi Kiran¹, Meryem Yucel¹, David Boas¹
¹Boston University, Boston, MA
- 1795 Prediction of psychosis using an interpretable supervised algorithm: Enet-TV**
Anton Iftimovici¹, Marie-Odile Krebs², Edouard Duchesnay³
¹NeuroSpin, CEA, UMR-Inserm 1266, GHU Paris Psychiatrie Neurosciences, Gif-sur-Yvette, France, ²UMR-Inserm 1266, GHU Paris Psychiatrie Neurosciences, Paris, France, ³NeuroSpin, CEA, Gif-sur-Yvette, France

- 1796 Macroscopic cortical organization in Type 2 Diabetes Mellitus and Metabolic Syndrome: a 7T fMRI study**
 Mohamed Yousif¹, Ali Khan^{1,2,3}, Jacobus Jansen⁴, Elia Formisano⁵, Kamil Uludag^{6,7,8}, Roy Haast¹
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- 1797 Disentangling the differential maturation of sensorimotor cortices in newborns compared to adults**
 Laurie Devisscher¹, Maëlig Chauvel², Cindy Rolland¹, Nicole Labra², Kevin Aubrain¹, François Leroy³, Héloïse de Vareilles², Lucie Hertz-Pannier¹, Antoine Grigis², Jean-François Mangin², Jessica Dubois¹
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- 1798 Validation of Frontal Alpha Asymmetry EEG Neurofeedback in Major Depression using Simultaneous fMRI**
 Vadim Zotev¹, Aki Tsuchiyagaito¹, Jerzy Bodurka^{1,2}
¹Laureate Institute for Brain Research, Tulsa, OK, ²Stephenson School of Biomedical Engineering, University of Oklahoma, Norman, OK
- 1799 Large-scale analysis of sex differences in subcortical volume across the adult lifespan**
 Christopher Ching¹, Alexandra Muir¹, Vigneshwaran Santhalingam¹, Zvart Abaryan², Alyssa Zhu¹, Sophia Thomopoulos¹, Neda Jahanshad¹, Paul Thompson¹
¹Imaging Genetics Center, Keck School of Medicine, University of Southern California, Marina del Rey, CA, ²Mercy St. Vincent Medical Center, Toledo, OH
- 1800 Identification of the Human Midline Thalamus using Probabilistic Tractography**
 Puck Reenders¹, Aaron Mattfeld², Timothy Allen²
¹Florida International University, Hollywood, FL, ²Florida International University, Miami, FL
- 1801 Structural Brain Correlates of Cognitive Deficits in Schizophrenia: A Meta-Analysis**
 Marianne Khalil¹, Philippine Hollander², Delphine Raucher-Chéné¹, Martin Lepage^{1,2}, Katie Lavigne¹
¹McGill University, Montreal, Quebec, ²Douglas Mental Health University Institute, Montreal, Quebec
- 1802 Geometric effects of volume to surface mapping**
 Keith George Ciantar¹, Ting Xu², Claude Bajada¹
¹University of Malta, Msida, Malta, ²Child Mind Institute, New York, NY
- 1803 Acute effects of exercise on prefrontal cortex activation during executive function tasks**
 James Crum¹, Paul Burgess¹, Flaminia Ronca¹
¹University College London, London, UK
- 1804 fMRI connectivity mapping in the awake mouse brain reveals a dynamic signature of consciousness**
 Daniel Gutierrez-Barragan¹, Neha Singh¹, Ludovico Coletta¹, Mauro Uboldi², Alessandro Gozzi¹
¹Functional Neuroimaging Laboratory, Istituto Italiano di Tecnologia, CNCS, Rovereto, Trento, ²Ugo Basile SRL, Gemonio, Varese
- 1805 Multi-class arterial segmentation of the Circle of Willis from MR angiography using deep learning**
 Félix Dumais¹, Marco Perez Caceres¹, Noémie Arès-Bruneau², Christian Bocti^{2,3,4}, Kevin Whittingstall⁵
¹Médecine Nucléaire et Radiobiologie, Université de Sherbrooke, Sherbrooke, Québec, ²Faculté de Médecine et des Sciences de la Santé, Université de Sherbrooke, Sherbrooke, Québec, ³Clinique de la Mémoire et Centre de Recherche sur le Vieillessement, CIUSSS de l'Estrie-CHUS, Sherbrooke, Québec, Canada, ⁴Service de Neurologie, Département de Médecine, CHUS, Sherbrooke, Québec, Canada, ⁵Radiologie diagnostique, Université de Sherbrooke, Sherbrooke, Québec
- 1806 Brain health and brain-body relationships in healthy individuals**
 Yizhou Ma¹, Kathryn Hatch¹, Si Gao¹, Neda Jahanshad², Paul Thompson², Elliot Hong¹, Peter Kochunov¹
¹Maryland Psychiatric Research Center, Catonsville, MD, ²Imaging Genetics Center, University of Southern California, Marina del Rey, CA
- 1807 Microstate Alterations Associated with Seizure Events in Full-term Neonates**
 Mohammad Khazaei¹, Khadijeh Raeisi¹, Pierpaolo Croce¹, Gabriella Tamburro¹, Filippo Zappasodi², Silvia Comani³
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- 1808 Methods for multivariate single trial decoding of Mdata with high overlap: simulations**
 Gal Vishne¹, Carmel Auerbach-Asch¹, Leon Deouell¹
¹The Hebrew University, Jerusalem, Israel
- 1809 Functional connectome stability as a marker of cognitive performance**
 Anna Corriveau¹, Kwangsun Yoo², Young Hye Kwon², Marvin Chun², Monica Rosenberg¹
¹Department of Psychology, The University of Chicago, Chicago, IL, ²Department of Psychology, Yale University, New Haven, CT
- 1810 Deep Mediation: a new approach towards high-dimensional mediation analysis**
 Tanmay Nath¹, Brian Caffo², Tor Wager³, Martin Lindquist⁴
¹Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, ²Johns Hopkins University, Baltimore, MD, ³Dartmouth College, Hanover, NH, ⁴Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 1811 Characterizing White Matter Microstructure and Cognition in Healthy Older APOE-ε2 and ε3 Carriers**
 Colleen Lacey¹, Jodie Gawryluk²
¹University of Victoria, Victoria, BC, ²University of Victoria, Victoria, British Columbia

- 1812 Spatial and feature-selective attention interact multiplicatively in multiple-demand network**
Nadene Dermody¹, Romy Lorenz^{1,2}, Alexandra Woolgar¹
¹MRC Cognition and Brain Sciences Unit, University of Cambridge, Cambridge, United Kingdom, ²MPI for Human Cognition and Brain Sciences, Leipzig, Germany
- 1813 Movie-watching fMRI for presurgical language mapping in brain tumor patients**
Shun Yao¹, Laura Rigolo¹, Alexandra Golby¹, Einat Liebenthal², Yanmei Tie¹
¹Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²McLean Hospital, Harvard Medical School, Belmont, MA
- 1814 ASLPrep: A Generalizable Workflow for Processing of Arterial Spin Labeled MRI**
Azeez Adebimpe¹, Maxwell Bertolero¹, Sudipto Dolui¹, Matthew Cieslak¹, Kristin Murtha¹, Erica Baller¹, Ellyn Butler¹, Philip Cook¹, Stanley Colcombe², Sydney Covitz¹, Christos Davatzikos¹, Diego Davilla-Feliciano¹, Matthew Flounders¹, Mark Elliott¹, Alexandre Franco³, Ruben Gur¹, Raquel Gur¹, Basma Jaber¹, Corey McMillan¹, Michael Milham³, Desmond Oathes¹, Christopher Olm¹, Henk Mutsaerts⁴, Jeffery Phillips¹, William Tackett¹, David Roalf¹, Tinashe Tapera¹, Dylan Tisdall¹, Oscar Esteban⁵, Russell Poldrack⁶, John Detre¹, Theodore Satterthwaite¹
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- 1815 Functional brain network of transsaccadic integration: Evidence from fMRI and graph theory analysis**
George Tomou¹, Bianca Baltaretu¹, Amirhossein Ghaderi¹, J. Douglas Crawford¹
¹York University, Toronto, Ontario
- 1816 The Impact of "Screen Time" on Adolescent Psychopathology & Cognitive Function**
Valerie Braddick¹, Alexandra Potter², Hugh Garavan², Bader Charani¹
¹University of Vermont College of Medicine, Burlington, VT, ²Department of Psychiatry, University of Vermont College of Medicine, Burlington, VT
- 1817 Sustainability of computational neuroimaging in the era of deep-learning**
Nikhil Bhagwat¹, Jean-Baptiste Poline²
¹McGill University, Montreal, QC, ²McGill University, Montreal, Quebec
- 1818 Development of Whole-Brain Networks from Childhood to Adulthood in Typical Development and Autism**
Chirag Mehra¹, Pilar Garcés², Petroula Laiou³, Charlotte Pretzsch¹, AIMS-2-TRIALS LEAP study⁴, Michael Absoud^{5,6}, Eva Loth¹, Emily Jones⁷, Declan Murphy¹, Mark Richardson⁸, Jonathan O'Muircheartaigh¹
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- 1819 Generalized Neural Mass Model for Characterization EEG Dynamics Transition**
Sepehr Radmanna¹, Obai Bin Ka'b Ali¹, Alexandre Vidal², Hassan Rivaz¹, Habib Benali¹
¹PERFORM Centre, Concordia University, Montreal, QC, ²université d'Évry-Val d'Essonne, Évry, Évry
- 1820 Characterization The Dynamics of Generalized Neural Mass Model**
Sepehr Radmanna¹, Obai Bin Ka'b Ali¹, Alexandre Vidal², Hassan Rivaz¹, Habib Benali¹
¹PERFORM Centre, Concordia University, Montreal, QC, ²université d'Évry-Val d'Essonne, Évry, Évry
- 1821 Respiratory function modulated during execution, observation, and imagination of walking via SII**
Antonello Pellicano¹, Gianluca Mingoia², Christoph Ritter³, Giovanni Buccino⁴, Ferdinand Binkofski⁵
¹Section for Clinical Cognitive Sciences, Department of Neurology, RWTH Uniklinik Aachen, AACHEN, Germany, ²RWTH Aachen University, AACHEN³Brain Imaging Facility, IZKF Aachen, Medical faculty, RWTH Aachen University, AACHEN, NRW, ⁴Division of Neuroscience, IRCCS San Raffaele and Vita Salute San Raffaele University, Milano, -, ⁵Section for Clinical Cognitive Sciences, Department of Neurology, RWTH Uniklinik Aachen, Aachen, NRW
- 1823 The association between cortical thickness and dimensions of the adolescent psychosis spectrum**
Alyssa Dai^{1,2}, Gabriel A. Devenyi^{1,2}, Manuela Costantino^{1,2}, Jakob Seidlitz^{3,4}, Theodore Satterthwaite⁴, Mallar Chakravarty^{1,2}
¹Douglas Mental Health University Institute, Verdun, Canada, ²McGill University, Montreal, Canada, ³Lifespan Brain Institute of the Children's Hospital of Philadelphia and Penn Medicine, Philadelphia, PA, ⁴University of Pennsylvania, Philadelphia, PA
- 1824 Selecting an Optimal Realtime fMRI Neurofeedback Signal Source for Alcohol Craving Treatment**
Reza Momenan¹, Samantha Fede¹, Vinai Roopchansingh², Sarah Dean¹, Mallory Kisner¹
¹CNIRC, NIAAA, NIH, Bethesda, MD, ²NIMH, NIH, Bethesda, MD
- 1825 Predicting brain activation maps for arbitrary tasks with ontology-based encoding models**
Jonathon Walters¹, Maedbh King², Patrick Bissett¹, Richard Ivry², Jörn Diedrichsen³, Russell Poldrack¹
¹Stanford University, Stanford, CA, USA, ²University of California Berkeley, Berkeley, CA, USA, ³Western University, London, Ontario, CA
- 1826 Identifying tissue specific transcriptomic effects on brain volume measures from GWAS summary data**
Hung Mai¹, Jingxuan Bao¹, Paul Thompson², Dokyoon Kim¹, Li Shen¹
¹University of Pennsylvania, Philadelphia, PA, ²Imaging Genetics Center, University of Southern California, Marina del Rey, CA
- 1827 Transcranial direct current stimulation induces structural plasticity in depression**
Mayank Jog¹, Cole Anderson¹, Antoni Kubicki¹, Michael Boucher¹, Gerhard Hellemann², Roger Woods¹, Katherine Narr¹
¹University of California Los Angeles, Los Angeles, CA, ²University of Alabama, Birmingham, Birmingham, AL

- 1829 Whole brain age-related patterns of atrophy, microstructure, and cognitive decline**
Stephanie Tullo¹, Raihaan Patel¹, Gabriel Devenyi¹, Alyssa Salaciak¹, Saashi Bedford², Sarah Farzin¹, Christine Tardif³, Mallar Chakravarty¹
¹Brain Imaging Centre, Douglas Research Center, Verdun, Quebec, ²University of Cambridge, Cambridge, England, ³McConnell Brain Imaging Center, Montreal Neurological Institute, Montreal, Quebec
- 1830 Gender differences in the interaction between FKBP5 rs1360780 and parental care on brain structure**
Izumi Matsudaira¹, Hikaru Takeuchi¹, Hiroaki Tomita¹, Ryuta Kawashima¹, Yasuyuki Taki¹
¹Tohoku University, Sendai, Japan
- 1831 Genetic variant of RELN correlates with brain structure and cognitive function in young adult female**
Ryo Yamaguchi¹, Izumi Matsudaira¹, Hikaru Takeuchi¹, Hiroaki Tomita¹, Ryuta Kawashima¹, Yasuyuki Taki¹
¹Tohoku University, Sendai, Japan
- 1832 An unbiased high resolution and detail-preserving structural template of the older adult brain**
ABDUR RAQUIB RIDWAN¹, Yingjuan Wu¹, Mohammad Rakeen Niaz¹, Xiaoxiao Qi¹, David Bennett², Konstantinos Arfanakis³
¹Illinois Institute of Technology, Chicago, IL, ²Rush University Medical Center, Chicago, IL, ³Illinois Institute of Technology, Chicago, IL
- 1833 Partial volume effect correction of PET images using 3d-residual-U-net**
Changseok Lee^{1,2}, ByeongChang Jeong^{1,2}, Hyun-Ghang Jeong^{3,4}, Cheol Han^{1,2}
¹Department of Electronics and Information Engineering, Korea University, Sejong, Republic of Korea, ²Interdisciplinary Graduate Program for Artificial Intelligence Smart Convergence Technology, Korea University, Sejong, Republic of Korea, ³Department of Psychiatry, Korea University College of Medicine, Seoul, Republic of Korea, ⁴Department of Biomedical Sciences, Korea University Graduate School, Seoul, Republic of Korea
- 1834 Multivariate Brain Morphological Signatures Predict People Reporting Chronic Pains For Over 2 Years**
Ravi Bhatt¹, Alyssa Zhu², Elizabeth Haddad¹, Paul Thompson³, Emeran Mayer⁴, Neda Jahanshad³
¹University of Southern California, Los Angeles, CA, ²University of Southern California, Marina del Rey, CA, ³Imaging Genetics Center, Keck School of Medicine, University of Southern California, Marina del Rey, CA, ⁴G. Oppenheimer Center for Neurobiology of Stress and Resilience, UCLA, Los Angeles, CA
- 1836 A cross-cohort study: sexual dimorphism in the relationship between brain complexity & intelligence**
Anca-Larisa Sandu¹, Gordon Waiter¹, Nafeesa Nazlee¹, Tina Habota¹, Chris McNeil¹, Dorota Chapko², Justin Williams³, Caroline Fall⁴, Giriraj Chandak⁵, Shailesh Pene⁶, Murali Krishna⁷, Andrew McIntosh⁸, Heather Whalley⁸, Kalyanaraman Kumaran^{4,9}, Ghattu Krishnaveni⁹, Alison Murray¹
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- 1837 Evaluating and Integrating Physiological Signatures of Attention Reorienting in Virtual Reality**
Pawan Lapborisuth¹, Sharath Koorathota¹, Zhitong Wang¹, Qi Wang¹, Paul Sajda¹
¹Columbia University, New York, NY, United States
- 1838 Mobile Footprinting: Identifying Individuals Using Naturalistic Mobility Patterns**
Cedric Huchuan Xia¹, Ian Barnett¹, Tinashe Tapera¹, Zaixu Cui¹, Tyler Moore¹, Sage Rush-Goebel¹, Kayla Piiwaa¹, Kristin Murtha¹, Sophia Linguiti¹, Melissa Martin¹, Monica Calkins¹, David Lydon-Staley¹, Justin Baker², Lyle Ungar¹, Theodore Satterthwaite¹
¹University of Pennsylvania, Philadelphia, PA, ²Harvard Medical School, Boston, MA
- 1839 Identifying the Common Neural Circuits Disruption in Inhibitory Control across Psychiatric Disorders**
Haifeng Yan¹, Way Lau², Jixin Long¹, Xiaoqi Song¹, Chanyu Wang¹, Jiubo Zhao¹, Xiangang Feng¹, Ruiwang Huang³, Maosheng Wang⁴, Xiaoyuan Zhang¹, Ruibin Zhang¹
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- 1840 Detection of rapid eye movement sleep behavior disorder using machine learning**
Jie Mei¹, Shady Rahayel², Christian Desrosiers³, Johannes Frasnelli¹, Jean-François Gagnon⁴
¹Université du Québec à Trois-Rivières, Trois-Rivières, QC, ²Montreal Neurological Institute and Hospital, McGill University, Hopital du Sacre-Coeur de Montreal, Montreal, Quebec, ³École de technologie supérieure Montréal, Montréal, QC, ⁴Université du Québec à Montréal, Montréal, QC
- 1842 The Tensor Dimensionality Reduction Method in Deep Learning Based Sex Classification Using Brain MRI**
Yi-Ju Lee¹, Toshinari Morimoto², Su-Yun Huang¹
¹Institute of Statistical Science, Academia Sinica, Taipei City, Taiwan, ²Department of Mathematics, National Taiwan University, Taipei City, Taiwan

- 1843 Transcriptional contributions to the cytoarchitectonic parcellation of the human cerebral cortex**
Leana King¹, Jesse Gomez², Zonglei Zhen³, Kevin Weiner¹
¹University of California, Berkeley, Berkeley, CA, ²Princeton, Princeton, NJ, ³Beijing Normal University, Beijing, China
- 1844 Functional Connectivity Changes in Psychosis: A triple-blind, placebo-control MRI study**
Sidhant Chopra¹, Shona Francey², Brian O'Donoghue², Kristina Sabaroedin¹, Aurina Arnatkeviciute¹, Vanessa Cropley³, Barnaby Nelson², Jessica Graham², Lara Baldwin², Hok Pan Yuen², Kelly Allott², Mario Alvarez-Jimenez², Susy Harrigan², Christos Pantelis³, Stephen Wood², Patrick McGorry², Alex Fornito¹
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- 1846 Correlations between cerebral CSF flow and spatiotemporal resting state BOLD signal fluctuations**
Bingyang Cai¹, Hui Huang¹, Jie Luo¹
¹Shanghai Jiao Tong University, Shanghai, China
- 1847 Organization of the Macaque Inferior Parietal Lobe Based on Multimodal Receptor Architectonics**
Meiqi Niu¹, Lucija Rapan¹, Thomas Funck¹, Seán Froudast-Walsh², Ling Zhao¹, Karl Zilles¹, Nicola Palomero-Gallagher¹
¹Institute of Neuroscience and Medicine (INM-1), Research Centre Jülich, Jülich, North Rhine-Westphalia, ²New York University, New York, NY
- 1848 Multimodal brain data improve prediction of processing speed in older adults**
Mengxia Gao¹, Tatia Lee¹
¹The University of Hong Kong, Hong Kong
- 1849 HD-EEG for tracking sub-second brain dynamics during cognitive tasks**
Mahmoud Hassan¹, Ahmad Mheich¹, Olivier Dufor², Aya Kabbara³, Sahar Yassine¹, Arnaud Biraben⁴, Fabrice Wendling³
¹NeuroKyma, Rennes, France, ²L@bISEN-Yncréa Ouest, ISEN, Brest, France, ³LTSI, INSERM, U1099, Rennes, France, ⁴Neurology department, CHU, Rennes, France
- 1850 Imaging-transcriptomics model of intracortical development during youth**
Casey Paquola^{1,2}, Matthias Kirschner³, Noor Sharif², Sara Larivière², Bo-yong Park², Oualid Benkarim⁴, Alan Evans², Boris Bernhardt²
¹Forschungszentrum Jülich, Jülich, Nordrhein-Westfalen, ²Montreal Neurological Institute, McGill University, Montreal, QC, Canada, ³University of Zurich, Zurich, ⁴Montreal Neurological Institute and Hospital, McGill University, Montreal, QC, Canada
- 1851 Neuroimaging evidence for a network sampling theory of human intelligence**
Eyal Soreq¹, Richard Daws¹, Ines violante², Adam Hampshire¹
¹Imperial College London, London, England, ²Surrey university, London, England
- 1852 The cerebellum and its role in motor networks and performance: A volumetric approach**
Gitta Barezipour¹, Nora Bittner^{1,2}, Martina Minnerop^{2,3,4}, Svenja Caspers^{1,2}
¹Institute for Anatomy I, Medical Faculty & University Hospital Düsseldorf, Heinrich-Heine-University, Düsseldorf, NRW, Germany, ²Institute of Neuroscience and Medicine (INM-1), Research Centre Jülich, Jülich, NRW, Germany, ³Department of Neurology, Center for Movement Disorders and Neuromodulation, Medical Faculty, Heinrich-Heine-University, Düsseldorf, NRW, Germany, ⁴Institute of Clinical Neuroscience and Medical Psychology, Medical Faculty, Heinrich-Heine-University, Düsseldorf, NRW, Germany
- 1853 Associations between striatal iron and dopamine D1 receptor availability across the adult lifespan**
Jonatan Gustavsson¹, Jarkko Johansson², Farshad Falahati¹, Goran Papeberg¹, Bárbara Avelar Pereira¹, Grégoria Kalpouzos¹, Alireza Salami³
¹Aging Research Center (ARC), Karolinska Institutet and Stockholm University, Solna, Stockholms län, ²Umeå University, Faculty of Medicine, Department of Radiation Sciences, Umeå, Västerbotten, ³Wallenberg Center for Molecular Medicine at Umeå University (WCMM), Umeå, Västerbotten
- 1854 Intra- and inter-session reproducibility of artificial scotoma PRF mapping at ultra-high fields**
David Linhardt¹, Maximilian Pawloff², Allan Hummer¹, Michael Woletz¹, Martin Tik¹, Maria Vasileiadi¹, Markus Ritter², Ursula Schmidt-Erfurth², Christian Windischberger¹
¹High Field MR Center, Center for Medical Physics and BME, Medical University of Vienna, Vienna, Austria, ²Department of Ophthalmology and Optometry, Medical University Vienna, Vienna, Austria
- 1855 EEGNET2: An open source tool for group-level analysis of M/EEG connectome**
iman almarouk¹, Fabrice Wendling¹, Mahmoud Hassan²
¹LTSI, INSERM, U1099, Rennes, F-35000, France, Rennes, France, ²NeuroKyma, F-35000, Rennes, France
- 1856 Improving Functional Connectivity Estimates with Data-Driven Scrubbing**
Damon Pham¹, Amanda Mejia¹
¹Indiana University, Bloomington, IN
- 1857 BigBrainWarp: Tools and workflows for integration of 3D histology with multimodal neuroimaging**
Casey Paquola^{1,2}, Jessica Royer², Tristan Glatard³, Konrad Wagstyl⁴, Jordan DeKraker⁵, Oualid Benkarim², Yezhou Wang⁶, Yun Lu², Paule Toussaint², Katrin Amunts¹, Alan Evans², Timo Dickscheid¹, Boris Bernhardt²
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- 1858 Prediction of human cognition: Are predictive features reliable and reproducible?**
Ye Tian¹, Andrew Zalesky¹
¹The University of Melbourne, Melbourne, Victoria

- 1859 Longitudinal Study of Intrinsic Functional Network Topology in Children with ADHD**
Shania Soman¹, Nandita Vijayakumar¹, Gareth Ball², Christian Hyde¹, Timothy Silk¹
¹Deakin University, Melbourne, Victoria, ²Murdoch Children's Research Institute, Melbourne, Victoria
- 1860 Top-down attention modulates spatiotemporal dynamics of object selectivity: An MEG-fMRI fusion study**
Chun-Hui Li¹, Bo-Cheng Kuo¹
¹Department of Psychology, National Taiwan University, Taipei, Taiwan
- 1861 Exploring the Laminae Connectome**
Ittai Shamir¹, Omri Tomer², Ronnie Krupnik², Yaniv Assaf²
¹Tel Aviv University, Tel Aviv, Israel, ²Tel Aviv University, Tel Aviv, Israel
- 1862 Network Occlusion Sensitivity Analysis reveals Brain Regions related to Aging**
Cheng Chen¹, Junhai Xu¹, Yaping Wang^{2,3}, Lin Chai^{2,3}, Gang Li^{2,3}, Lingzhong Fan^{2,3}
¹College of Intelligence and Computing, Tianjin University, Tianjin, China, ²Brainnetome Center, Beijing, China, ³Institute of Automation, Chinese Academy of Sciences, Beijing, China
- 1863 Latent space representation of Task-fMRI using 3d-Autoencoder in a large study: HCP and UK-biobank**
Mariam Zabih¹, Seyed Mostafa Kia², Christian Beckmann³, Andre Marquand⁴
¹Department of Cognitive Neuroscience, Radboud University Medical Center, Nijmegen, [Select a State], ²Donders, Nijmegen, Netherlands, ³Radboud University, Nijmegen, Nijmegen, ⁴Radboud University, Nijmegen, Gelderland
- 1864 Contentless Thinking is Associated with Whole-Brain Positive Inter-Areal Connectivity Patterns**
Seperh Mortaheb¹, Laurens Van Calster¹, Paradeisios Boulakis¹, Kleio Georgoula¹, Steve Majerus¹, Athena Demertzi¹
¹University of Liege, Liege, Belgium
- 1865 Evolutionarily conserved fMRI network dynamics in the human, macaque and mouse brain**
Daniel Gutierrez-Barragan¹, Stefano Panzeri², Ting Xu³, Alessandro Gozzi¹
¹Functional Neuroimaging Laboratory, Istituto Italiano di Tecnologia, CNCS, Rovereto, Italy, ²Neural Computation Laboratory, Istituto Italiano di Tecnologia, CNCS, Rovereto, Italy, ³Center for the Developing Brain, Child Mind Institute, New York, NY
- 1866 Within-category discrimination distinguishes musicians from non-musicians in categorical perception**
Chantal Oderbolz^{1,2}, Simon Leipold^{1,3}, Marielle Greber¹, Lutz Jäncke¹
¹Division Neuropsychology, Department of Psychology, University of Zurich, 8050 Zurich, Switzerland, ²Department of Comparative Language Science, University of Zurich, 8050 Zurich, Switzerland, ³Department of Psychiatry and Behavioral Sciences, Stanford University, School of Medicine, Stanford, CA 94305, USA
- 1867 Entropic Traces of Noise Resistant Computational Networks**
Jules BROCHARD¹, Jean Daunizeau¹
¹Brain Institute Paris, Paris, Ile-de-France
- 1868 Associations of Sleep Duration with Global Cognition and Gray Matter Volume in Children aged 9 to 11**
Hoki Fung¹, Ju Lynn Ong¹, B.T. Thomas Yeo¹, Michael WL Chee¹
¹Centre for Sleep and Cognition, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore
- 1869 A multimodal fusion study of spinocerebellar ataxia type 3 using parallel ICA + ICA on PET and fMRI**
Harm Jan van der Horn¹, Jelmer Kok¹, Sanne Meles¹, Victor M. Vergara², Shile Qi³, Vince Calhoun⁴, Jelle Dalenberg¹, Bauke de Jong¹, Jeroen de Vries¹, Joke Spikman¹, Hubertus Kremer¹
¹UMCG, Groningen, Groningen, ²Georgia State University, Atlanta, GA, ³Tri-institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), atlanta, GA, ⁴GSU/GATech/Emory, Atlanta, GA
- 1870 Temporal Evolution of Oscillatory Bursts in Intracranial EEG before Seizures**
Andrei Medvedev¹
¹Georgetown University, Washington, DC
- 1871 Robust temporal interpolation of acquisition time differences for 3D fMRI sequences**
Samuel Bianchi¹, Jakob Heinze², Lars Kasper^{1,2,3}, Maria Engel¹, Klaas P Pruessmann¹
¹Institute for Biomedical Engineering, ETH Zurich & University of Zurich, Zurich, Switzerland, ²Translational Neuromodeling Unit, University of Zurich & ETH Zurich, Zurich, Switzerland, ³Techna Institute, University Health Network, Toronto, Canada
- 1872 Differential default-mode network effective connectivity in young-onset Alzheimer's disease variants**
Seda Sacu¹, Catherine Slattery², Jonathan Schott², Adeel Razi³
¹Berlin School of Mind and Brain, Humboldt Universität zu Berlin, Berlin, Brandenburg, ²University College London, London, London, ³Monash University, Wantirna, Australia
- 1873 An fMRI study on flow motion perception from visuo-tactile integration**
Jeanne Caron-Guyon¹, Caroline Landelle², Jean-Luc Anton³, Bruno Nazarian³, Julien Sein³, Nicolas Catz¹, Anne KAVOUNOUDIAS¹
¹Aix-Marseille University, Marseille, Provence-Alpes-Côte-d'Azur, ²McGill University, Montreal, Quebec, ³CNRS, Marseille, Provence-Alpes-Côte-d'Azur
- 1875 Instantaneous network modularity and cognitive performance in Parkinson's disease patients**
Siva Venkadesh¹, Dawn Schiehsler², Andrew Petkus³, Michael Jakowec³, Giselle Petzinger³, John Van Horn¹
¹University of Virginia, Charlottesville, VA, ²University of California, San Diego, CA, ³University of Southern California, Los Angeles, CA
- 1876 Exploring the role of frontoparietal cortex in visual search by fMRI-TMS on early and later time**
Danmei Zhang¹, Banglei Yu¹, Ling Li¹
¹Key Laboratory for NeuroInformation of Ministry of Education, Chengdu, Sichuan

- 1877 Reliability of resting-state functional connectivity in the human spinal cord at 3T**
Merve Kaptan¹, Ulrike Horn¹, Johanna Vannesjo², Toralf Mildner¹, Nikolaus Weiskopf^{1,3}, Juergen Finsterbusch⁴, Falk Eippert¹
¹Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, ²Department of Physics, Norwegian University of Science and Technology, Trondheim, Norway, ³Felix Bloch Institute for Solid State Physics, Leipzig, Germany, ⁴Department of Systems Neuroscience, University-Medical-Centre Hamburg-Eppendorf, Hamburg, Germany
- 1878 EEG Microstates Distinguish Active and Quiet Sleep During the Neonatal Period**
Khadijeh Raeisi¹, Mohammad Khazaei¹, Pierpaolo Croce¹, Gabriella Tamburro¹, Silvia Comani², Filippo Zappasodi³
¹Dep. of Neuroscience, Imaging and Clinical Sciences, University "G. d'Annunzio" of Chieti-Pescara, Chieti, Italy, ²Behavioral Imaging and Neural Dynamics Center, University "G. d'Annunzio" of Chieti-Pescara, Chieti, Italy, ³Institute of Advanced Biomedical Technologies (ITAB), University "G. d'Annunzio" of Chieti-Pescara, Chieti, Italy
- 1879 Measuring the incidence of structural alteration across gray matter**
JORDI MANUELLO¹, Donato Liloia², LORENZO MANCUSO³, ANDREA NANI³, tommaso costa³, FRANCO CAUDA³
¹Università degli Studi di Torino, Torino, TX, ²University of Turin, Turin, Italy, ³Università degli Studi di Torino, Torino, PR
- 1880 Exploring the mechanisms of less affected hand impairment in unilateral stroke with diffusion MRI**
Firdaus Fabrice HANNANU¹, Bernadette Naegele², Marc Hommel¹, Alexandre Krainik³, Olivier Detante², Assia Jaillard^{1,4}
¹AGEIS, Université Grenoble Alpes, Grenoble, France, ²Stroke Unit, Centre Hospitalier Universitaire Grenoble Alpes (CHUGA) France, Grenoble, France, ³Neuroradiologie, CHUGA France, Grenoble, France, ⁴IRM 3T Recherche - IRMAGe, Grenoble, France
- 1881 Overcoming bias in representational similarity analysis**
Roberto Viviani¹
¹University of Innsbruck, Innsbruck, AK
- 1882 High test-retest reliability of the human functional connectome over 1.5 years**
Maximilian Lueckel^{1,2}, Matthias Zerban^{1,2}, Miriam Kampa^{1,3}, Anita Schick^{1,4}, Alexandra Sebastian⁵, Michèle Wessa^{6,2}, Oliver Tuescher^{5,2}, Raffael Kalisch^{1,2}, Kenneth Yuen^{1,2}
¹Neuroimaging Center, Johannes Gutenberg University Medical Center, Mainz, Germany, ²Leibniz Institute for Resilience Research, Mainz, Germany, ³Psychotherapy and Systems Neuroscience, Department of Psychology, Justus Liebig University, Giessen, Germany, ⁴Department of Public Mental Health, Central Institute of Mental Health, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany, ⁵Department of Psychiatry and Psychotherapy, Johannes Gutenberg University Medical Center, Mainz, Germany, ⁶Clinical Psychology and Neuropsychology, Institute for Psychology, Johannes Gutenberg University, Mainz, Germany
- 1883 A new Hypothesis on Brain Plasticity: Dynamic Changes of GM & WM After Retinal Gene Therapy**
Manzar Ashtari¹, Philip Cook¹, Mikhail Lipin¹, Yinxi Yu¹, Gui-shuang Ying¹, James Gee¹, Albert Maguire¹, Jean Bennett¹, Hui Zhang²
¹University of Pennsylvania, Philadelphia, PA, ²University College London, London, London
- 1884 Identification and synthesis of preferred images for individual regions in the human visual cortex**
Zijin Gu¹, Keith Jamison², Meenakshi Khosla¹, Mert Sabuncu¹, Amy Kuceyeski³
¹Cornell University, Ithaca, NY, ²Weill Cornell Medicine, New York, NY, ³Weill Cornell Medicine, Ithaca, NY
- 1885 An Agent-Based Model Recreates the Propagation of Alpha-Synuclein Pathology in the Mouse Brain**
Shady Rahayel^{1,2}, Bratislav Mistic¹, Ying-Qiu Zheng³, Zhen-Qi Liu¹, Alaa Abdelgawad¹, Nooshin Abbasi¹, Anna Caputo⁴, Bin Zhang⁴, Angela Lo⁴, Victoria Kehm⁴, Michael Kozak⁴, Hansoo Yoo⁴, Kelvin Luk⁴, Alain Dagher¹
¹Montreal Neurological Institute and Hospital, McGill University, Montreal, QC, ²Center for Advanced Research in Sleep Medicine, Montreal, QC, ³FMRI (Oxford University Centre for Functional MRI of the Brain), Department of Clinical Neurology, Oxford, UK, ⁴Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
- 1886 A pragmatic approach to reuseable research outputs**
Adina Wagner¹, Jean-Baptiste Poline², Michael Hanke³
¹Juelich Research Centre, Juelich, Germany, ²McGill University, Montreal, Quebec, ³Juelich Research Centre and Heinrich Heine University Düsseldorf, Juelich and Düsseldorf, Germany
- 1888 Whether and how resource sharing resists scarcity: the role of cognitive empathy**
Xiaoxuan Huang¹, Jie Liu^{2,1}, Ruolei Gu^{3,4}, Fang Cui^{1,2}
¹School of Psychology, Shenzhen University, Shenzhen, China, ²Center for Brain Disorders and Cognitive Neuroscience, Shenzhen University, Shenzhen, China, ³CAS Key Laboratory of Behavioral Science, Institute of Psychology, Beijing, China, ⁴Department of Psychology, University of Chinese Academy of Sciences, Beijing, China
- 1889 Dissociable Multi-scale Patterns of Development in Personalized Brain Networks**
Adam Pines¹, Bart Larsen², Zaixu Cui², Max Bertolero¹, Hongming Li¹, Azeez Adebimpe¹, Aaron Alexander-Bloch¹, Danielle Bassett¹, Damien Fair³, Ruben Gur¹, Raquel Gur¹, Michael Milham⁴, Tyler Moore¹, Kristin Murtha¹, Sheila Shanmugan¹, Russell Shinohara¹, Valerie Sydnor¹, Sarah Weinstein¹, Yong Fan¹, Theodore Satterthwaite¹
¹University of Pennsylvania, Philadelphia, PA, ²University of Pennsylvania, Pennsylvania, PA, ³University of Minnesota, Minneapolis, MN, ⁴Child Mind Institute, New York, NY
- 1890 Predicting Psychopathology Factor from Functional Connectivity via Neural Networks**
Jinwoo Hong¹, Jong-Hwan Lee¹
¹Korea University, Seoul, Korea, Republic of
- 1891 The null distribution of cross-validated MVPA errors: characterization and parametric approximations**
Giancarlo Valente¹
¹Maastricht University, Maastricht, The Netherlands
- 1892 Increased sex hormones are associated with increased segregation of functional connectivity networks**
Elaine Wu¹, Elvisha Dhamala², Laura Pritschet³, Tyler Santander³, Emily Jacobs³, Amy Kuceyeski²
¹Cornell University, Ithaca, NY, ²Weill Cornell Medicine, Ithaca, NY, ³UC Santa Barbara, Santa Barbara, CA

- 1893 Improved correspondence between fMRI and EEG estimates of vigilance fluctuations with multi-echo ICA**
 Sarah Goodale¹, Bohan Jiang¹, Jennifer Evans², Jacco de Zwart³, Pinar Ozbay³, Dante Picchioni³, Jeff Duyn³, Dario Englot⁴, Victoria Morgan⁴, Catie Chang¹
¹Vanderbilt University, Nashville, TN, ²NIMH/NIH, Bethesda, MD, ³NIH, Bethesda, MD, ⁴Vanderbilt University Medical Center, Nashville, TN
- 1894 Functional brain mapping of natural stimuli with high-density diffuse optical tomography**
 Morgan Fogarty¹, Kalyan Tripathy¹, Alexandra Svoboda², Mariel Schroeder³, Sean Rafferty¹, Patricia Mansfield⁴, Rachel Ulbrich⁴, Madison Booth¹, Edward Richter¹, Christopher Smyser⁴, Adam Eggebrecht⁴, Joseph Culver¹
¹Washington University in St. Louis, St. Louis, MO, ²University of Cincinnati Medical Center, Cincinnati, OH, ³Purdue University, West Lafayette, IN, ⁴Washington University School of Medicine, St. Louis, MO
- 1895 Trauma alters white matter microstructural organisation in individuals with & without schizophrenia**
 Laura Costello¹, Giulia Tronchin¹, Laurena Holleran¹, Maria Dauvermann², David Mothersill³, Karolina Rokita¹, Ruan Kane¹, Brian Hallahan¹, Aiden Corvin⁴, Derek Morris¹, Declan McKernan¹, John Kelly¹, Colm McDonald¹, Gary Donohoe¹, Dara Cannon¹
¹Centre for Neuroimaging & Cognitive Genomics (NICOG), National University of Ireland Galway, H91TK33, Galway, Ireland, ²Department of Forensic and Neurodevelopmental Sciences, King's College London, London, United Kingdom, ³School of Business, National College of Ireland, Dublin, Ireland, Dublin, Ireland, ⁴Department of Psychiatry, Trinity Centre for Health Sciences, St. James's Hospital, Dublin, Ireland
- 1897 Fractal-Based Analysis of BOLD-signal during Naturalistic Viewing Conditions**
 Olivia Campbell¹, Alexander Weber¹, Tamara Vanderwal¹
¹University of British Columbia, Vancouver, British Columbia
- 1898 Dyslexia specific and experience effects on brain connectivity of poor and typical readers**
 Sarah Di Pietro^{1,2}, David Willinger^{1,2}, Nada Frei^{1,2}, Chiara Schneider¹, Christina Lutz^{1,2}, Seline Coraj^{1,2}, Philipp Stämpfli¹, Silvia Brem^{1,2}
¹University Hospital of Psychiatry Zurich, University of Zurich, Zurich, Switzerland, ²Neuroscience Center Zurich, University of Zurich and ETH Zurich, Zurich, Switzerland
- 1899 Neural correlates of letter-speech sound learning in school children**
 Nada Frei^{1,2}, Gorka Fraga-González¹, Patrick Haller^{1,3}, Christina Lutz^{1,2}, Seline Coraj^{1,2}, David Willinger^{1,2}, Rebecca Eva Hefti¹, Silvia Brem^{1,2}
¹Department of Child and Adolescent Psychiatry and Psychotherapy, University Hospital of Psychiatry, Zurich, Switzerland, ²Neuroscience Center Zurich, University of Zurich and ETH Zurich, Zurich, Switzerland, Zurich, Switzerland, ³Department of Computational Linguistics, University of Zurich, Zurich, Switzerland
- 1900 Modeling and verification of brain network based on timed automata in autism spectrum disorder**
 Wenwen Zhuang¹, Jing Cong¹, Hesong Wang², Tao Zhang¹
¹School of science, Xihua University, Chengdu, China, Chengdu, Sichuan, ²Nanfeng Hospital, Southern Medical University, Guangzhou, China, Guangdong, Guangzhou
- 1901 Contributions of global measures to the genetic architecture of cortical surface area and thickness**
 Carolina Makowski¹, Hao Wang¹, Yuqi Qiu¹, Dennis van der Meer², Oleksandr Frei², Jingjing Zou¹, Peter Visscher³, Jian Yang⁴, Chi-Hua Chen¹
¹University of California San Diego, San Diego, CA, ²University of Oslo, Oslo, Norway, ³The University of Queensland, Brisbane, Australia, ⁴Westlake University, Hangzhou, Zhejiang
- 1902 Functional brain network for perisaccadic visual processing**
 Amirhossein Ghaderi¹, Matthias Niemeier², John Crawford¹
¹York University, Toronto, Ontario, ²University of Toronto, Toronto, CA-ON
- 1903 Automatic Limbic Segmentation using Deep Learning and Noise Intensity Augmentation**
 Douglas Greve¹, Benjamin Billot², Bruce Fischl³, Adrian Dalca³, Juan Iglesias⁴, Jean Augustinack⁵
¹Athinoula A. Martinos Center for Biomedical Imaging, Somerville, MA, ²University College London, London, England, ³Massachusetts General Hospital, Boston, MA, ⁴University College, London, England, ⁵Martinos Center for Biomedical Imaging, Boston, MA
- 1904 Prediction of Postural Anticipation and Recovery in Human Based on Age**
 Elnaz Torabinejad^{1,2}, Laurence Lai^{3,2}, Kesaan Kandasamy^{3,2}, Nancy St-Onge^{4,2}, Nizar Bouguila^{5,2}, Habib Benali^{1,2}, Karen Li^{3,2}
¹Department of Electrical and Computer Science, Concordia University, Montreal, Canada, ²PERFORM Centre, Montreal, Canada, ³Department of Psychology, Concordia University, Montreal, Canada, ⁴Department of Health, Kinesiology & Applied Physiology, Concordia University, Montreal, Canada, ⁵Department of Information System, Concordia University, Montreal, Canada
- 1905 Neural decoding of emotional prosody predicts social communication abilities in children**
 Simon Leibold¹, Daniel Abrams¹, Shelby Karraker¹, Vinod Menon¹
¹Stanford University, Stanford, CA
- 1906 The gradient model of cortical organization in decisions about 'empathy for pain'**
 Karin Labek¹, Roberto Viviani^{1,2}
¹Institute of Psychology, University of Innsbruck, ²Dept. of Psychiatry and Psychotherapy III, University of Ulm
- 1907 Myelin-weighted connectome in Parkinson's disease**
 Tommy Boshkovski¹, Julien Cohen-Adad^{1,2,3}, Bratislav Misić⁴, Jean-Christophe Corvol⁵, Marie Vidailhet⁵, Stéphane Lehericy⁵, Matteo Mancini^{6,7,1}, Nikola Stikov^{1,8}
¹NeuroPoly Lab, Polytechnique Montréal, Montréal, Québec, Canada, ²Mila - Quebec AI Institute, Montréal, Québec, Canada, ³Functional Neuroimaging Unit, Centre de recherche de l'institut universitaire de gériatrie de Montréal, Montréal, Québec, Canada, ⁴McConnell Brain Imaging Centre, Montréal, Québec, Canada, ⁵Paris Brain Institute (ICM), Paris, France, ⁶University of Sussex, Brighton, East Sussex, ⁷CUBRIC, Cardiff University, Cardiff, United Kingdom, ⁸Montreal Heart Institute, Montréal, Québec, Canada
- 1908 Alcohol Drinking is linked to Dynamic State Transitions of Functional Network Connectivity**
 Victor Vergara¹, Harm Jan van der Horn², Vince Calhoun³
¹Tri-institutional Center for Translational Research (TReNDS), Atlanta, GA, ²UMCG, Groningen, Groningen, ³GSU/GATech/Emory, Atlanta, GA

- 1909 Early structural asymmetry in the central sulcus is associated with handedness in infant baboons**
 Siham Bouziane¹, Kep Kee Loh^{1,2,3}, Yannick Becker^{1,2}, Solene Brunschvig¹, Amelie Picchiotto¹, Julien Sein⁴, Olivier Coulon^{4,2}, Lionel Velly⁴, Luc Renaud⁴, Adrien Meguerditchian^{1,2,5}
¹Laboratoire de Psychologie Cognitive, CNRS, Aix-Marseille Univ, Marseille, France, ²Institute for Language Communication and the Brain, Aix-Marseille Univ, Marseille, France, ³Institut de Neurosciences de la Timone, CNRS, Aix-Marseille Univ, Marseille, France, ⁴Institut de Neurosciences de la Timone, Aix-Marseille Univ, Marseille, France, ⁵Station de Primatologie CNRS, Marseille, France
- 1910 Transcranial static magnetic field stimulation modulates corticostriatal activity**
 Jaime Caballero-Insaurriaga^{1,2}, Jose Angel Pineda-Pardo¹, Guglielmo Foffani^{1,3}
¹Centre for Integrative Neuroscience A.C. (HM CINAC), Móstoles, Madrid, ²Universidad Politecnica de Madrid, Madrid, Spain, ³Hospital Nacional de Paraplejicos, Toledo, Spain
- 1911 Using customized NIRS-EEG to study infant functional connectivity during sleep**
 Louisa Gossé¹, Frank Wiesemann², Clare Elwell³, Emily Jones¹
¹Centre for Brain & Cognitive Development, Birkbeck, University of London, London, Greater London, ²Procter & Gamble, Schwalbach am Taunus, Hessen, ³Department of Medical Physics and Biomedical Engineering, University College London, London, Greater London
- 1912 Using diffusional kurtosis imaging to capture white matter tissue complexity in aging**
 Hiba Taha^{1,2}, Jordan Chad^{2,3}, J. Jean Chen^{2,3}
¹Department of Human Biology, University of Toronto, Toronto, Canada, ²Rotman Research Institute, Baycrest, Toronto, Canada, ³Department of Medical Biophysics, University of Toronto, Toronto, Canada
- 1913 Relevance of lipid levels for differences in cortical structure and cognition of the aging brain**
 Julia Stefanik¹, Nora Bittner^{1,2}, Alfons Schnitzler³, Svenja Caspers^{1,2,4}
¹Institute for Anatomy I, Medical Faculty & University Hospital Düsseldorf, Heinrich Heine University, Düsseldorf, Germany, ²Institute of Neuroscience and Medicine (INM-1), Research Center Juelich, Juelich, Germany, ³Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Düsseldorf, Germany, ⁴JARA-BRAIN, Jülich-Aachen Research Alliance, Juelich, Germany
- 1914 Measuring Time-varying Connectivity using Tapered Windowed Phase Synchronization**
 Hamed Honari¹, Martin Lindquist²
¹Johns Hopkins University, Baltimore, MD, ²Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 1915 Neural Mechanisms of Eye-Gaze Perception in Children as a function of Autism Trait**
 Shadi Bagherzadeh-Azbari¹, Changsong Zhou², Gilbert Ka Bo Lau², Andrea Hildebrandt³, Werner Sommer⁴, Ming Ann Lui⁵
¹Humboldt-Universität Zu Berlin, Berlin, Deutschland, ²Hong Kong Baptist University, Kowloon, Hong Kong, ³University of Oldenburg, Oldenburg, Germany, ⁴Humboldt-Universität Zu Berlin, Berlin, Germany, ⁵Hong Kong Baptist University, Kowloon, Kowloon
- 1916 Impact of Polygenic Risk Score on Normative Models of Hippocampal Volumes**
 Mohammed Janahi¹, Leon Aksman², Jonathan Schott³, Andre Altmann⁴
¹University College London, London, United Kingdom, ²University of Southern California, Los Angeles, CA, ³University College London, London, London, ⁴UCL, London, United Kingdom
- 1917 Modulation of alpha-band oscillations indexes automatic attentional capture by emotional distractors**
 Lydia Arana¹, María Melcón¹, Dominique Kessel¹, Sandra Hoyos², Jacobo Albert¹, Luis Carreté¹, Almudena Capilla¹
¹Universidad Autónoma de Madrid, Madrid, Spain, ²Universidad Católica del Uruguay, Montevideo, Uruguay
- 1918 Mapping the natural frequencies of the human brain**
 Almudena Capilla¹, Marta García-Huésca¹, Lydia Arana¹, María Melcón¹, Abel Cano², Pablo Campo¹
¹Universidad Autónoma de Madrid, Madrid, Spain, ²Universidad de Granada, Granada, Spain
- 1919 Bipolar disorder alter topology and synchronizability of functional brain network**
 Fatemeh Akrami¹, Amir Hossein Ghaderi²
¹Iran University of Medical Sciences, Calgary, AK, ²University of Calgary, Calgary, Alberta
- 1923 Age-dependent contribution of domain-general networks to semantic cognition**
 Sandra Martin¹, Dorothee Saur², Gesa Hartwigsen¹
¹Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Saxony, ²University of Leipzig Medical Center, Leipzig, Saxony
- 1924 Open-Source Model Viability in Estimating Biological Brain Age in Major Depressive Disorder**
 Claire Punturieri¹, Jennifer Evans¹, Courtney Burton¹, Carlos Zarate¹
¹NIMH, Bethesda, MD
- 1925 Pipeline for processing EEG data acquired during block-design simultaneous EEG-fMRI-ASL study**
 Balu Krishnan¹, Wanyong Shin¹, Ajay Nemani¹, Mark Lowe¹
¹Cleveland Clinic, Cleveland, OH
- 1926 FMRI Decoding with Few Labeled Examples**
 Myriam Bontonou¹, Vincent Gripon¹, Nicolas Farrugia¹
¹IMT Atlantique, Plouzané, Bretagne
- 1927 Connectome Reconfigurations during Jazz Music Improvisation**
 Victor Vergara¹, Martin Norgaard², Robyn Miller³, Vince Calhoun⁴
¹Tri-institutional Center for Translational Research (TReNDS), Atlanta, GA, ²Stanford University, Stanford, CA, ³Tri-institutional Center for Translational Research in Neuroimaging and Data Science (TReNDS), Atlanta, GA, ⁴GSU/GATech/Emory, Atlanta, GA

- 1928 Multimodal analysis of autism related inter-individual variation of gray and white matter morphology**
 Ting Mei¹, Alberto Llera¹, Natalie Forde¹, Dorothea Floris¹, Iva Ilioska¹, Sarah Durston², Carolin Moessnang³, Tobias Banaschewski⁴, Rosemary Holt⁵, Simon Baron-Cohen⁵, Annika Rausch¹, Eva Loth⁶, Flavio Dell'Acqua⁶, Tony Charman⁷, Declan Murphy⁶, Christine Ecker⁸, Christian Beckmann¹, Jan Buitelaar¹, - the EU-AIMS LEAP group⁹
¹Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, ²Brain Center Rudolf Magnus, Utrecht, Netherlands, ³Department of Psychiatry and Psychotherapy, Central Institute of Mental Health, Mannheim, Germany, ⁴Department of Child and Adolescent Psychiatry, Central Institute of Mental Health, Mannheim, Germany, ⁵Autism Research Centre, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, ⁶Forensic and Neurodevelopmental Sciences, King's College London, London, United Kingdom, ⁷Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, United Kingdom, ⁸Department of Child and Adolescent Psychiatry, University Hospital, Goethe University, Frankfurt am Main, Germany, ⁹-, London, United Kingdom
- 1929 A fronto-parietal network supports task familiarization**
 Jiwon Yeon¹, Dobromir Rahnev¹
¹Georgia Institute of Technology, Atlanta, GA
- 1930 Resting EEG effective connectivity at the sources in developmental Dysphonetic Dyslexia**
 Jorge Bosch¹, Katia Girini², Rolando Biscay³, Pedro Valdés-Sosa⁴, Alan Evans⁵, Giuseppe Chiarenza²
¹McGill Centre for Integrative Neuroscience, Montreal Neurological Institute, Montreal, Quebec, ²Centro Internazionale dei disturbi di apprendimento, attenzione e iperattività, (CIDAAI) Milano 201, Milano, Milano, ³Centro de Investigación en Matemáticas. A.C., Jalisco S/N, Guanajuato, 36023, México, Guanajuato, Guanajuato, ⁴University of Electronic Science and Technology of China, Chengdu, Sichuan, ⁵Montreal Neurological Institute, McGill University, Montreal, Quebec
- 1931 Development of the visual pathways mediates development of electrophysiology in visual cortex**
 Sendy Caffarra¹, Sung Jun Joo², David Bloom³, John Kruper³, Ariel Rokem³, Jason Yeatman⁴
¹Stanford University School of Medicine, Stanford, CA, ²Pusan National University, Department of Psychology, Busan, Busan, ³University of Washington, Seattle, WA, ⁴Stanford University, Stanford, CA
- 1932 Shared responses and individual differences in fMRI during movie-viewing**
 Xuan Li^{1,2}, Kaustubh R. Patil^{1,2}, Sridharan Devarajan³, Simon Eickhoff^{1,2}, Susanne Weis^{1,2}
¹Institute of Systems Neuroscience, Heinrich Heine University Düsseldorf, Düsseldorf, Germany, ²Institute of Neuroscience and Medicine (INM-7: Brain and Behaviour), Research Centre Jülich, Jülich, Germany, ³Centre for Neuroscience, Indian Institute of Science, Bangalore, India
- 1933 Time-Varying Temporal Functional Modes: A Novel Model to Probe Network Reconfigurations in fMRI**
 Tamara de Kloe^{1,2}, Zahra Fazal¹, Nils Kohn^{1,2}, Maarten Mennes¹, David Norris^{1,3}, Ravi Menon⁴, Christian Beckmann^{1,2,5}, Alberto Llera^{1,2}
¹Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, the Netherlands, ²Department of Cognitive Neuroscience, Radboud University Medical Centre, Nijmegen, Netherlands, ³Erwin L. Hahn Institute for Magnetic Resonance Imaging, Essen, Germany, ⁴Centre for Functional and Metabolic Mapping, Robarts Research Institute, Western University, London, Ontario, Canada, ⁵Wellcome Centre for Integrative Neuroimaging, FMRIB Building, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, United Kingdom
- 1934 Self-identification & self-location brain networks: A lesion network mapping analysis**
 Sophie Betka¹, Julien Haemmerli², Hyeong-Dong park¹, Giannina Rita Iannotti², Eva Blondiaux Garcia Fuente¹, Pavo Operic¹, Sixto Alcoba Banqueri¹, Bruno Herbelin³, Christoph Michel⁴, Karl Schaller², Olaf Blanke¹
¹EPFL, Geneva, ²HUG, Geneva, ³EPFL, Geneva, Geneva, ⁴UNIGE, Geneva
- 1937 AFIDs: a standardized framework for evaluating anatomical correspondence between primate brains**
 Borna Mahmoudian¹, Nikoloz Sirmipilatz^{2,3}, Mohamad Abbass⁴, Sarah Allarakhia¹, Greydon Gilmore⁵, Geetika Gupta⁶, Katja Heuer^{7,8}, P. Christiaan Klink⁹, Roberto Toro¹⁰, Jonathan Lau¹
¹Schulich School of Medicine and Dentistry, University of Western Ontario, London, Ontario, Canada, ²Functional Imaging Laboratory, German Primate Center - Leibniz Institute for Primate Research, Göttingen, Lower Saxony, Germany, ³Georg-August University of Göttingen, Göttingen, Lower Saxony, Germany, ⁴Department of Clinical Neurological Sciences, London Health Sciences Centre, Western University, London, Ontario, Canada, ⁵School of Biomedical Engineering, University Hospital, London, Ontario, Canada, ⁶Brain and Mind Institute, University of Western Ontario, London, Ontario, Canada, ⁷Center for research and interdisciplinarity (CRI), Paris, Île-de-France, France, ⁸Department of Neuropsychology Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Saxony, Germany, ⁹Department of Vision and Cognition, Netherlands Institute for Neuroscience, Amsterdam, North Holland, The Netherlands, ¹⁰Neuroscience Department, Institut Pasteur, Paris, Île-de-France, France
- 1938 Mapping columnar axis of motion in human area MT using SI-SS-VASO at 7T**
 Alessandra Pizzuti¹, Amaia Benitez-Andonegui¹, Laurentius Huber¹, Omer Faruk Gulban¹, Sriranga Kashyap¹, Luca Vizioli², Steen Moeller², Mehmet Akcakaya², Kamil Ugurbil², Judith Peters¹, Rainer Goebel¹
¹Maastricht University, Maastricht, Netherlands, ²CMRR, University of Minnesota, Minneapolis, MN
- 1940 Pulvinar plasticity gates inhibitory processing in visual cortex for perceptual learning**
 Joseph Ziminski¹, Polytimi Frangou¹, Vasilis Karlaftis¹, Zoe Kourtzi¹
¹University of Cambridge, Cambridge, Cambridgeshire

1942 Probing Cerebello-cerebral Resting State Functional Connectivity in Mild Cognitive Impairment

Sheeba Anteraper¹, Nikita Joshi², Alex Belden¹, Xavier Guell³, Farhan Abdul Vaheed⁴, Raihan Abdul Vaheed⁵, Yoon Ji Lee¹, Psyche Loui¹, Maiya Geddes¹

¹Northeastern University, Boston, MA, ²Boston University, Boston, MA, ³Massachusetts General Hospital and Harvard Medical School, Boston, MA, ⁴McMaster University, Hamilton, Ontario, ⁵University of Waterloo, Waterloo, Ontario

1943 Individual variability of microstructural-functional coupling in the human cortex

Raihaan Patel¹, Gabriel Desrosiers-Gregoire¹, Gabriel Devenyi¹, Mallar Chakravarty¹

¹Cerebral Imaging Centre, Douglas Mental Health University Institute, Verdun, QC

1944 Multi-modal Latent Variable Model could help individuals stratification: application to HBN cohort

Corentin Ambroise¹, Angeline Mihailov¹, Vincent Frouin¹, Antoine Grigis¹

¹Neurospin, Institut Joliot, CEA, Université Paris-Saclay, Gif-sur-Yvette, Île-de-France

1945 The effect of 6 months in space on brain macro- and microstructure

Steven Jillings¹, Angélique Van Ombergen¹, Elena Tomilovskaya², Alena Rumshiskaya³, Liudmila Litvinova³, Inna Nosikova², Ekaterina Pechenkova⁴, Ilya Rukavishnikov², Stefan Sunaert⁵, Paul Parizel⁶, Valentin Sinitsyn⁷, Victor Petrovichev³, Steven Laureys⁸, Peter zu Eulenburg⁹, Jan Sijbers¹, Floris Wuyts¹, Ben Jeurissen¹

¹University of Antwerp, Antwerp, Belgium, ²Russian Academy of Sciences, Moscow, Russian Federation, ³National Medical Research Treatment and Rehabilitation Centre, Moscow, Russian Federation, ⁴National Research University Higher School of Economics, Moscow, Russian Federation, ⁵KU Leuven, Leuven, Belgium, ⁶Royal Perth Hospital and University of Western Australia Medical School, Perth, Australia, ⁷Lomonosov Moscow State University, Moscow, Russian Federation, ⁸University of Liège, Liège, Belgium, ⁹Ludwig-Maximilians-University, Munich, Germany

1946 The effects of real-time fMRI neurofeedback on supraliminal and subliminal response inhibition

Jeanette Popovova^{1,2}, Reza Mazloun^{1,2,3}, Gianluca Macaudo¹, Philipp Stämpfli⁴, Sascha Frühholz⁵, Patrik Vuilleumier⁶, Frank Scharnowski⁷, Lars Michels¹

¹Department of Neuroradiology, University Hospital of Zurich, Zurich, Switzerland, ²Neuroscience Center Zurich, University of Zurich and ETH Zurich, Zurich, Switzerland, ³Department of Health Sciences and Technology, ETH Zurich, Zurich, Switzerland, ⁴Department of Psychiatry, Psychiatric Hospital, University of Zurich, Zurich, Switzerland, ⁵Department of Psychology, University of Zurich, Zurich, Switzerland, ⁶Department of Neurosciences and Clinic of Neurology, University Medical Center, Geneva, Switzerland, ⁷Department of Basic Psychological Research and Research Methods, University of Vienna, Vienna, Austria

1947 Cortical hypometabolism lateralizes seizure focus in temporal lobe epilepsy with non-lesional MRI

Julia Simon¹, Robert Knowlton², Yan Li², Wolfgang Muhlhof³, Hosung Kim¹

¹Mark and Mary Stevens Neuroimaging and Informatics Institute, Keck School of Medicine, USC, Los Angeles, CA, ²Neurology and UCSF Weill Institute for Neurosciences, San Francisco, CA, ³University of Alabama at Birmingham Epilepsy Center, Birmingham, AL

1948 Linking structural and functional brain organisation with behaviour in autism

Natalie Forde¹, Alberto Llera², Ting Mei³, Dorothea Floris⁴, Flavio Dell'Acqua⁵, Christine Ecker⁶, Jan Buitelaar⁷, Christian Beckmann⁸

¹Donders, Nijmegen, Netherlands, ²Radboud University, Nijmegen, Gelderland, ³Donders Institute, Nijmegen, Gelderland, ⁴Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Gelderland, ⁵King's College London, London, na, ⁶Institute of Psychiatry, Frankfurt, Frankfurt, ⁷Donders Institute, Nijmegen, Nijmegen, ⁸Radboud University, Nijmegen, Nijmegen

1950 Resting state system segregation alters heart rate variability relationship with cognition

Babu Adhimoolam¹, Tania Kong¹, Kathy Low¹, Bradley Sutton¹, Gabriele Gratton¹, Monica Fabiani¹

¹University of Illinois at Urbana-Champaign, Urbana, IL

1951 Obesity genetic risk is related to weight gain via structural changes in the frontoparietal network

Filip Morys¹, Eric Yu², Ziv Gan-Or¹, Alain Dagher¹

¹Montreal Neurological Institute and Hospital, McGill University, Montreal, Quebec, ²Department of Human Genetics, McGill University, Montreal, Quebec

1952 A cortical network for transaccadic perception of object orientation vs. shape: An fMRI paradigm

Bianca Baltaretu¹, W. Stevens¹, Erez Freud¹, J. Douglas Crawford¹

¹York University, Toronto, Ontario

1953 Trajectories of Network Routing and Diffusion Efficiencies during early brain development

Sheng-Che Hung¹, Weiyan Yin¹, Tengfei Li¹, Li Wang², Weili Lin³

¹University of North Carolina Chapel Hill, Chapel Hill, NC, ²University of North Carolina, Chapel Hill, NC, ³Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, Chapel Hill, NC

1954 Sparse co-occurrences of fMRI and intracranial EEG functional connectivity states in resting state

Parham Mostame¹, Jonathan Wirsich², Thomas Alderson¹, Ben Ridley³, Serge Vulliémot², Maxime Guye³, Louis Lemieux⁴, Sepideh Sadaghiani¹

¹University of Illinois at Urbana-Champaign, Champaign, IL, ²University of Geneva, Geneva, Switzerland, ³Aix-Marseille University, Marseille, France, ⁴University College London (UCL), London, United Kingdom

1956 Modelling signal propagation through the human connectome at high spatiotemporal resolution

Caio Seguin¹, Maciej Jedynak², Olivier David², Olaf Sporns³, Andrew Zalesky⁴

¹University of Melbourne, Melbourne, VIC, ²Université Grenoble Alpes, Grenoble, Grenoble, ³Indiana University - Bloomington, Bloomington, IN, ⁴The University of Melbourne, Melbourne, Victoria

1957 Data Sharing Policies in Neuroimaging Data Repositories

Anita Jwa¹, Russell Poldrack¹

¹Stanford University, Stanford, CA

- 1958 Regional White Matter Hyperintensity Burden, Functional Connectivity, and Cognition in Older Adults**
Abhishek Jaywant¹, Katharine Dunlop¹, Lindsay Victoria¹, Lauren Oberlin¹, Charles Lynch¹, Matteo Respino¹, Amy Kuceyeski², Matthew Scult¹, Matthew Hoptman³, Conor Liston¹, Michael O'Dell¹, George Alexopoulos¹, Faith Gunning¹
¹Weill Cornell Medicine, New York, NY, ²Weill Cornell Medicine, Ithaca, NY, ³Nathan Kline Institute for Psychiatric Research, Orangeburg, NY
- 1959 Excitation-Inhibition Balance in the Infant Brain**
Guoshi Li¹, Hoyt Patrick Taylor¹, Ye Wu¹, Sahar Ahmad¹, Zhengwang Wu¹, Li Wang¹, Gang Li¹, Weili Lin¹, Pew-Thian Yap¹
¹Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, USA
- 1960 Active Subspace Learning of Brain Imaging Data**
Ishaan Batta¹, Anees Abrol², Vince Calhoun³
¹Georgia Institute of Technology, Atlanta, GA, ²Center for Translational Research in Neuroimaging and Data Science (TReNDS): : GSU/GAtech/Emory, Atlanta, GA, ³Center for Translational Research in Neuroimaging and Data Science (TReNDS): GSU/GAtech/Emory, Atlanta, GA
- 1961 Ex-vivo whole human brain diffusion MRI at 550 micron resolution with a 3T Connectom scanner**
Gabriel Ramos Llorden¹, Chiara Maffei¹, Qiyuan Tian¹, Berkin Bilgic¹, Jean Augustinack¹, Thomas Witzel², Alina Scholz³, Boris Keil³, Anastasia Yendiki¹, Susie Huang¹
¹Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Q Bio Inc., San Carlos, CA, ³Institute for Medical Physics and Radiation Protection, TH Mittelhessen - Univ. of Applied Sciences, Giessen, Hesse
- 1962 Exploring the Role of Event Boundaries in Idiosyncratic Memory Formation**
Clara Sava-Segal¹, Emily Finn¹
¹Dartmouth College, Hanover, NH
- 1963 Precise cartography of individual brains with a common functional basis**
Ma Feilong¹, James Haxby¹
¹Dartmouth College, Hanover, NH
- 1964 Monash rsfPET-fMRI and Monash visfPET-fMRI: Two publicly available simultaneous MR-PET datasets**
Sharna Jamadar¹, Phillip Ward¹, Thomas Close¹, Shenjun Zhong¹, Alex Fornito¹, Zhaolin Chen¹, N. Jon Shah², Gary Egan¹
¹Monash University, Melbourne, VIC, ²Forschungszentrum Juelich GmbH, Juelich, Juelich
- 1965 Low Infant Functional Connectome-based Identification Accuracy Across the First Year of Life**
Alexander Dufford¹, Stephanie Noble¹, Siyuan Gao², Dustin Scheinost¹
¹Yale University, New Haven, CT, ²Yale School of Medicine, New Haven, CT
- 1966 Normative Modeling of a Brain Using Generalized Additive Models for Location Scale and Shape**
Richard Dinga¹, Charlotte Frazza², Andre Marquand³
¹Donders, Amsterdam, NA, ²Radboud University, utrecht, utrecht, ³Radboud University, Nijmegen, Gelderland
- 1967 Abnormality Segmentation in Brain MRI: U-Net Is Not Shift-Invariant**
Mostafa Sharifzadeh^{1,2}, Habib Benali^{1,2}, Hassan Rivaz^{1,2}
¹Concordia University, Montreal, Canada, ²PERFORM Centre, Montreal, Canada
- 1968 Benchmarking of 3D Atlas Creation Tools from 2D Label Maps in BigBrain**
Mona Omidyeganeh^{1,2}, Manuela Kunz³, Philippe Massicotte³, Louis Borgeat³, Paule Toussaint¹, Sherri Jones¹, Ayca Altinkaya¹, Abbas Sadikot¹, Jens Pruessner⁴, Jonathan Boisvert⁵, Alan Evans¹
¹Montreal Neurological Institute, McGill University, Montreal, Quebec, ²National Research Council of Canada, Ottawa, Canada, ³National Research Council of Canada, Ottawa, Ontario, ⁴University of Constance, Konstanz, Konstanz, ⁵National Research Council of Canada, Ottawa, Ontario
- 1969 Dataset shift when defining biomarkers with machine learning**
J r me Dock s¹, Jean-Baptiste Poline¹, Ga l Varoquaux²
¹McGill University, Montreal, Quebec, ²INRIA, Paris, Paris
- 1971 Contributions of Prefrontal White Matter Integrity to Cognitive Performance in Healthy Aging**
Wojciech Pietrasik¹, Fraser Olsen¹, Scott Travis¹, Nikolai Malykhin¹
¹University of Alberta, Edmonton, Alberta
- 1972 Age-related differences in structural and functional networks involved in positive and negative empathy**
Maryam Ziaei¹, Lena Oestreich¹, David Reutens¹, Natalie Ebner²
¹University of Queensland, Brisbane, QLD, ²University of Florida, Gainesville, FL
- 1973 Modeling Face Recognition in the Predictive Coding Framework: Combining a computational model & fMRI**
Nestor Zaragoza-Jimenez¹, Hauke Niehaus², Christoph Vogelbacher¹, Gabriele Ende³, Inge Kamp-Becker⁴, Dominik Endres², Andreas Jansen¹
¹Laboratory for Multimodal Neuroimaging, Department of Psychiatry, University of Marburg, Marburg, Hessen, ²Theoretical Cognitive Science Lab, Department of Psychology, University of Marburg, Marburg, Hessen, ³Department of Neuroimaging, Central Institute of Mental Health (CIMH), University of Heidelberg, Mannheim, Baden-W rttemberg, ⁴Center for Mind, Brain, and Behavior (CMBB), University of Marburg and Justus Liebig University Gies, Marburg, Hessen
- 1974 N170 Response to Fearful Faces Predicts Therapy Outcomes in Posttraumatic Stress Disorder**
Richard Bryant¹, Mayuresh Korgaonkar², Thomas Williamson³
¹University of New South Wales, Kensington, NSW, ²Westmead Institute for Medical Research, Westmead, NSW, ³University of New South Wales, Sydney, NSW
- 1975 Querying the NeuroQuery dataset with a brain image**
J r me Dock s¹, Romain Primet², Jean-Baptiste Poline¹, Ga l Varoquaux³
¹McGill University, Montreal, Quebec, ²INRIA, Saclay, Saclay, ³INRIA, Paris, Paris
- 1976 Is it the left one or the right one? Investigating hemispheric asymmetries via classification**
Patrick Friedrich¹, Kaustubh R. Patil^{1,2}, Lisa Mochalski^{1,2}, Simon Eickhoff^{1,2}, Susanne Weis^{1,2}
¹Institute of Neuroscience and Medicine (INM-7: Brain and Behavior), J lich, Germany, ²Heinrich-Heine-Universit t, D sseldorf, Germany

- 1977 Classifying Obsessive-Compulsive Disorder using diffusion MRI – multi-site machine learning study**
Bogyeom Kim¹, Kakyong Kim², Sooyoung Kim², Ji Hwan Park³, Shinjae Yoo³, Odile van den Heuvel⁴, Dan Stein⁵, Rachel Marsh⁶, Blair Simpson⁶, Fabrizio Piras⁷, Jiok Cha^{1,2,8}, ENIGMA-OCD working group⁴
¹Department of Psychology, College of Social Sciences, Seoul National University, Seoul, Korea, Republic of, ²Department of Brain and Cognitive Sciences, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, ³Computational Science Initiative, Brookhaven National Laboratory, Upton, NY, ⁴Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands, ⁵Department of Psychiatry and Neuroscience Institute, University of Cape Town, Cape Town, South Africa, ⁶Columbia University Medical College, New York, NY, ⁷Department of Clinical and Behavioral Neurology, IRCCS Santa Lucia Foundation, Rome, Italy, ⁸AI Institute, Seoul National University, Seoul, Korea, Republic of
- 1978 Multivariate characterization of cortical thickness covariance patterns in autism spectrum disorder**
Justine Ziolkowski^{1,2}, Raihaan Patel^{2,3}, Saashi Bedford^{2,4}, Stephanie Tullo^{1,2}, Evdokia Anagnostou⁵, Jason Lerch^{6,7}, Margot Taylor⁷, Mallar Chakravarty^{1,2,8}
¹Integrated Program in Neuroscience, McGill University, Montreal, Canada, ²Douglas Mental Health University Institute, Montreal, Canada, ³Department of Biological and Biomedical Engineering, McGill University, Montreal, Canada, ⁴University of Cambridge, Cambridge, United Kingdom, ⁵Holland Bloorview Kids Rehabilitation Hospital, Toronto, Canada, ⁶University of Oxford, Oxford, United Kingdom, ⁷The Hospital for Sick Children, Toronto, Canada, ⁸Department of Psychiatry, McGill University, Montreal, Canada
- 1980 Increased functional activity and altered effective connectivity during sensory learning in autism**
Roshini Randeniya¹, Iris Vilares², Jason Mattingley¹, Marta Garrido³
¹The University of Queensland, St Lucia, Australia, ²University of Minnesota, Minneapolis, MN, ³University of Melbourne, Melbourne, Victoria
- 1983 Latent variable modeling in neurocognitive and psychological attributes and brain network**
Soyong Eom¹, Bumhee Park²
¹Yonsei university College of Medicine, Seoul, Seoul, ²Department of Biomedical Informatics and Office of Biostatistics, Ajou University School of Medicine, Suwon, Suwon
- 1984 Comparing 7T fMRI protocols for imaging subcortical regions as expectations guide visual priorities**
Kelly Garner¹, Christopher Nolan², Markus Barth³, Saskia Bollmann⁴, Ole Jensen⁵, Marta Garrido⁶
¹Queensland Brain Institute, St Lucia, QLD, ²UNSW, Sydney, NSW, ³The University of Queensland, Brisbane, Queensland, ⁴Centre for Advanced Imaging, The University of Queensland, Brisbane, QLD, ⁵University of Birmingham, Birmingham, West Midlands, ⁶University of Melbourne, Melbourne, Victoria
- 1985 Heatmaps of Functional Connectivity Correlates of 4-year Working Memory from Newborns to 4-year-olds**
Haitao Chen^{1,2}, Emil Cornea³, John Gilmore³, Wei Gao^{1,2}
¹Department of Biomedical Sciences and Imaging, Cedars-Sinai Medical Center, Los Angeles, USA, ²Department of Bioengineering, University of California at Los Angeles, Los Angeles, USA, ³Departments of Psychiatry, University of North Carolina at Chapel Hill, Chapel Hill, USA
- 1986 Age differences in white matter: 3-way multimodal fusion analysis with machine learning applications**
Andrea Mendez¹, Michelle Hefner¹, Vince Calhoun², Edward McAuley³, Art Kramer⁴, Agnieszka Burzynska¹
¹Colorado State University, Fort Collins, CO, ²GSU/GATech/Emory, Atlanta, GA, ³University of Illinois at Urbana-Champaign, Champaign, IL, ⁴Northeastern University, Boston, MA
- 1987 Linking genetics to Alzheimer's disease via human brain mapping**
Mansu Kim¹, Ruiming Wu¹, Xiaohui Yao¹, Andrew Saykin², Jason Moore¹, Li Shen¹
¹University of Pennsylvania, Philadelphia, PA, ²Indiana University, Indianapolis, IN
- 1988 QTE Imaging Reveals White Matter FA is Dominated by Fiber Orientation, not Microscopic Anisotropy**
Elizabeth Rizer¹, Margaret Hayes¹, Scott Grafton¹
¹University of California, Santa Barbara, Santa Barbara, CA
- 1989 Altered functional and structural network connectivity in children with infantile hydrocephalus**
Ramina Adam^{1,2}, Daamoon Ghahari¹, Roy Eagleson^{1,3}, Sandrine de Ribaupierre^{1,2,3}
¹Brain and Mind Institute, Western University, London, Ontario, Canada, ²Clinical Neurological Sciences, Western University, London, Ontario, Canada, ³Electrical and Computer Engineering, Western University, London, Ontario, Canada
- 1990 Reliability of Spatially Constrained Independent Component Analysis Across Pipelines in Children**
Thomas DeRamus¹, Armin Iraj², Zening Fu², Yuhui Du³, Julia Stephen⁴, Tony Wilson⁵, Yu-Ping Wang⁶, Vince Calhoun²
¹TREND Center, Atlanta, GA, ²TRENDs Center, Atlanta, GA, ³Shanxi University, Taiyuan, China, ⁴The Mind Research Network, Albuquerque, NM, ⁵Boys Town National Research Hospital, Boys Town, NE, ⁶Tulane University, New Orleans, LA
- 1991 Structure-function substrates of spatial memory in medial and lateral temporal cortices**
Shahin Tavakol¹, Qionglin Li¹, Jessica Royer¹, Reinder Vos de Wael¹, Sara Larivière¹, Alex Lowe¹, Casey Paquola¹, Elizabeth Jefferies², Tom Hartley², Andrea Bernasconi³, Neda Bernasconi³, Jonathan Smallwood², Lorenzo Caciagli⁴, Boris Bernhardt¹
¹Multimodal Imaging and Connectome Analysis Laboratory, McConnell Brain Imaging Centre, MNI, Montreal, Montreal, Quebec, ²University of York, York, UK, ³Neuroimaging of Epilepsy Laboratory, McConnell Brain Imaging Center, MNI, Montreal, Quebec, Montreal, Quebec, ⁴Department of Bioengineering, University of Pennsylvania, Philadelphia, USA, Philadelphia, PA
- 1995 Microstructure Gradients Reflect Distributed and Integrative Functional Connectivity Patterns**
Yezhou Wang¹, Jessica Royer¹, Bo-yong Park¹, Reinder Vos de Wael¹, Sara Larivière¹, Shahin Tavakol¹, Raul Rodríguez-Cruces¹, Casey Paquola¹, Sofie Valk², Jonathan Smallwood³, Alan Evans¹, Boris Bernhardt¹
¹Montreal Neurological Institute and Hospital, McGill University, Montreal, Quebec, ²FZ Jülich, Jülich, Germany, ³Queen's University, Kingston, Ontario
- 1996 Disrupted Functional Connectivity in Adolescent Social Phobia with and without ADHD Comorbidity**
Brian Kim¹, Xin Niu¹, Fengqing Zhang¹
¹Drexel University, Philadelphia, PA

- 1998 Multi-Site Prediction of Sex from Functional Connectomes**
Matthew Rosenblatt¹, Qinghao Liang¹, Sarah Lichenstein¹, Bader Chaarani², Hugh Garavan², Sarah Yip¹, Dustin Scheinost¹
¹Yale University, New Haven, CT, ²University of Vermont College of Medicine, Burlington, VT
- 1999 Sex Difference in the Resting-state Functional Connectivity depend on Brain Types**
Megumi Matsuda¹, Izumi Matsudaira¹, Yasuko Tatewaki¹, Hiroki Kataoka¹, Hikaru Takeuchi¹, Yasuyuki Taki¹
¹Tohoku University, Sendai, Japan
- 2000 Cortical gyrification differences between early- and late-onset obsessive-compulsive disorder**
Inkyung Park¹, Minah Kim^{2,3}, Sanghoon Oh⁴, Silvia Kyungjin Lho^{2,3}, Sun-Young Moon^{2,3}
¹Department of Brain and Cognitive Sciences, Seoul National University College of Natural Sciences, Seoul, Korea, Republic of, ²Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of, ³Department of Neuropsychiatry, Seoul National University Hospital, Seoul, Korea, Republic of, ⁴Department of Psychiatry, Uijeongbu Eulji Medical Center, Eulji University, Gyeonggi, Korea, Republic of
- 2001 Decreased Structural and Functional Brain Network Controllability in Temporal Lobe Epilepsy**
Andrew Janson¹, Graham Johnson², Baxter Rodgers¹, Bennett Landman², Dario Englot¹, Victoria Morgan¹
¹Vanderbilt University Medical Center, Nashville, TN, ²Vanderbilt University, Nashville, TN
- 2002 White matter microstructure and myelin concentration in white matter hyperintensities**
Jennifer Ferris¹, Brian Greeley¹, Irene Vavasour¹, Sarah Kraeutner¹, Shie Rinat¹, Sandra Black², Lara Boyd¹
¹The University of British Columbia, Vancouver, British Columbia, ²Sunnybrook Research Institute, Toronto, Ontario
- 2004 Connectivity profiles of numeral-prefering areas in the inferior temporal cortex**
Benjamin Conrad¹, Gavin Price¹
¹Vanderbilt University, Nashville, TN
- 2005 Cerebral small vessel disease in people who are homeless or precariously housed**
Melissa Woodward¹, Andrea Jones¹, Wayne Su¹, Lily Zhou¹, William Panenka¹, Yomna Hadid¹, Emmanuel Jackson¹, Jacob Stubbs¹, Kristina Gicas², Allen Thornton³, Talia Vertinsky¹, Manraj Heran¹, Ghadeer Al-Momen¹, Alasdair Barr¹, William MacEwan¹, Alexander Rauscher¹, Donna Lang¹, Thalia Field¹, William Honer¹
¹University of British Columbia, Vancouver, BC, ²York University, Toronto, ON, ³Simon Fraser University, Burnaby, BC
- 2006 Mapping Cognitive Declines Using Neuroimaging Biomarkers and Machine Learning**
Seyed Hani Hojjati¹, Abbas Babajani-Feremi²
¹Weill Cornell Medicine, New York, NY, ²University of Texas at Austin, Austin, TX
- 2007 Surface-based Morphometry shows reduced Cortical Thickness in Boys with Duchenne Muscular Dystrophy**
Nitish Patel¹, Ashish Sahib¹, Joana Loureiro¹, David Lee¹, Katherine Narr^{1,2}, Roger Woods^{1,2}, Eileen Fowler³, Sandra Loo², Shantanu Joshi¹
¹Ahmanson-Lovelace Brain Mapping Center, Department of Neurology, University of California, Los Angeles, CA, ²Department of Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, CA, ³UCLA/OIC Center for Cerebral Palsy, University of California, Los Angeles, CA
- 2009 Multimodal predictors for the performance during frontal alpha asymmetry EEG neurofeedback training**
Yutong Li^{1,2}, Linling Li^{1,2}, Gan Huang^{1,2}, Li Zhang^{1,2}, Zhen Liang^{1,2}, Zhiguo Zhang^{1,2,3,4}
¹School of Biomedical Engineering, Health Science Center, Shenzhen University, ShenZhen, China, ²Guangdong Provincial Key Laboratory of Biomedical Measurements and Ultrasound Imaging, ShenZhen, China, ³Peng Cheng Laboratory, ShenZhen, China, ⁴Marshall Laboratory of Biomedical Engineering, ShenZhen, China
- 2010 Apparent aging of the human brain and body systems: Disease, mortality and lifestyle factors**
Ye Tian¹, Vanessa Cropley², Andrew Zalesky¹
¹The University of Melbourne, Melbourne, Victoria, ²Melbourne Neuropsychiatry Centre, University of Melbourne, Melbourne, Victoria
- 2011 Flexible Reconfigurations of Brain Networks in Decisions with Predefined vs. Self-Generated Option**
Qianying Wu¹, Zhihao Zhang², Andrew Kayser³, Ming Hsu²
¹California Institute of Technology, Pasadena, CA, ²University of California, Berkeley, Berkeley, CA, ³University of California, San Francisco, San Francisco, CA
- 2012 The EEG for perspective-taking in sentence comprehension is correlated with autistic tendency**
Shingo Tokimoto¹, Naoko Tokimoto²
¹Mejiro University, Tokyo, Japan, ²Shobi University, Kawagoe, Saitama
- 2013 Effects of fMRI temporal resolution on brain effective connectivity measured by Granger causality**
Xinxin Zhang¹, Meng Liang¹
¹School of Medical Imaging, Tianjin Medical University, Tianjin, China
- 2015 The Altered EEG for both Frequency and Time Domains in Patients with Chronic Low Back Pain**
Hsin-Yuan Wu¹, Wen-Chein Chen², Poyu Chen¹
¹Depart. of Occupational Therapy and Graduate Institute of Behavioral Sciences, Chang Gung University, Taoyuan, Taiwan, ²Depart. of Orthopedic Surgery, Chang Gung Memorial Hospital, Taoyuan, Taiwan
- 2016 Cross-Hemispheric Connectivity and Its Impact Cognition in Healthy and MCI-AD Older Adults**
Mariam Hovhannisyani¹, Olga Lucia Gamboa¹, Daisy Banta¹, Simon Davis¹
¹Duke University, Durham, NC
- 2017 Preprocessing subcortical structures surface model in SWI for Atypical Parkinsonian Syndroms**
Yun Soo Kim¹, Lee Jae Hyeok¹, Jin Kyu Gahm¹
¹Pusan National University, Pusan, Korea, Republic of

- 2019 Construction of high resolution multimodal templates of the older adult brain**
Yingjuan Wu¹, Mohammad Rakeen Niaz¹, ABDUR RAQUIB RIDWAN¹, Xiaoxiao Qi¹, David Bennett², Konstantinos Arfanakis^{1,2}
¹Illinois Institute of Technology, Chicago, IL, ²Rush University Medical Center, Chicago, IL
- 2020 Characterising Neural Heterogeneity in Psychiatric Disorders using Normative Models**
Ashlea Segal¹, Linden Parkes², Kevin Aquino³, Seyed Mostafa Kia⁴, Thomas Wolfers⁵, Barbara Franke⁶, Martine Hoogman⁶, Christian Beckmann⁴, Lars Westlye⁷, Ole Andreassen⁷, Andrew Zalesky⁸, Ben Harrison⁸, Christopher Davey⁸, Carles Soriano-Mas⁹, Jeggan Tiego¹, Murat Yücel¹, Leah Braganza¹, Chao Suo¹, Michael Berk¹⁰, Sue Cotton¹¹, Mark Bellgrove¹, Andre Marquand⁴, Alex Fornito¹
¹Turner Institute for Brain and Mental Health, Monash University, Melbourne, Australia, ²University of Pennsylvania, Philadelphia, USA, ³University of Sydney, Sydney, Australia, ⁴Radboud University, Nijmegen, Netherlands, ⁵NORMENT/Donders, Oslo/Nijmegen, Germany, ⁶Radboud University Medical Centre, Nijmegen, Netherlands, ⁷NORMENT, Oslo, Norway, ⁸The University of Melbourne, Melbourne, Australia, ⁹Department of Psychiatry, Bellvitge Biomedical Research Institute-IDIBELL, Barcelona, Spain, ¹⁰Deakin University, Melbourne, Australia, ¹¹Orygen, Melbourne, Australia
- 2021 Limbic Effective Connectivity to the Cortex under Psilocybin**
Devon Stoliker^{1,2}, Gary Egan², Franz Vollenweider³, Katrin Preller³, Adeel Razi^{2,4,1}
¹Turner Institute for Brain and Mental Health, Monash University, Melbourne, Victoria, Australia, ²Monash Biomedical Imaging, Monash University, Clayton, Victoria, Australia, ³Department of Psychiatry, Psychotherapy & Psychosomatics, University Hospital for Psychiatry, Zurich, Zurich, Switzerland, ⁴The Wellcome Centre for Human Neuroimaging, UCL, London, United Kingdom, United Kingdom
- 2022 Examining the Neurobiological Validity of a Novel VR Assessment Tool for Early Detection of AD**
Hannah Fingerhut¹, Emily Schultz¹, Elveda Gozdas¹, Lauren Dacorro¹, Jessica Welch¹, Jacob Shaw¹, Shayan Nazarfifar², Tanya Watarastaporn¹, Stephanie Chao¹, Hadi Hosseini¹
¹Stanford University, Stanford, CA, ²UC Davis, Davis, CA
- 2023 Why you may not need a respiration belt to correct breathing induced artifacts in fMRI data**
Paul Bloom¹, Ryan Lim², Anna Vannucci¹, Lei Ai³, Nim Tottenham¹, Michael Milham³, Alexandre Franco³
¹Columbia University, New York, NY, ²Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY, ³Child Mind Institute, New York, NY
- 2024 Know pain, know gain: Brain representations of sensory pleasure and pain**
Soo Ahn Lee^{1,2}, Jisoo Han^{1,3}, Jae-Joong Lee^{1,2}, Myunghwan Choi^{1,3}, Choong-Wan Woo^{1,2}
¹Center for Neuroscience Imaging Research, Suwon, Korea, Republic of, ²Sungkyunkwan University, Suwon, Korea, Republic of, ³Seoul National University, Seoul, Korea, Republic of
- 2026 Socialness is in the eye of the beholder: Evidence from brain activity and behavior**
Rekha Varrier¹, Emily Finn²
¹Dartmouth College, Lebanon, NH, ²Dartmouth College, Hanover, NH
- 2027 Mapping Thalamocortical Functional Connectivity with Large-scale Brain Networks in Psychosis**
Yoo Bin Kwak¹, Kang Ik Cho², Wu Jeong Hwang¹, Ahra Kim¹, Junhee Lee^{3,4}, Tae Young Lee⁵, Minah Kim^{3,4}, Jun Soo Kwon^{1,3,4,6}
¹Department of Brain and Cognitive Sciences, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, ²Psychiatry Neuroimaging Laboratory, Department of Psychiatry, Brigham and Women's Hospital, Boston, MA, ³Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of, ⁴Department of Neuropsychiatry, Seoul National University Hospital, Seoul, Korea, Republic of, ⁵Department of Neuropsychiatry, Pusan National University Yangsan Hospital, Yangsan, Korea, Republic of, ⁶Institute of Human Behavioral Medicine, SNU-MRC, Seoul, Korea, Republic of
- 2028 A morphological landmark of face processing in the human brain**
Ben Parker¹, Willa Voorhies¹, Jesse Gomez², JIAHUI GUO³, Nicholas Furl⁴, Lúcia Garrido⁵, Brad Duchaine³, Kevin Weiner¹
¹University of California, Berkeley, Berkeley, CA, ²Princeton University, Princeton, NJ, ³Dartmouth College, Hanover, NH, ⁴Royal Holloway, University of London, Egham, Surrey, ⁵City, University of London, London
- 2029 A Dynamic Functional Connectivity Marker for Rumination**
Jungwoo Kim^{1,2}, Jesscia Andrews-Hanna³, Byeol Kim^{1,2}, Hongji Kim^{1,2}, Elizabeth Losin⁴, Hedwig Eisenbarth⁵, Tor Wager⁶, Choong-Wan Woo^{1,2}
¹Center for Neuroscience Imaging Research, Suwon, Korea, Republic of, ²Sungkyunkwan University, Suwon, Korea, Republic of, ³University of Arizona, Tucson, AZ, USA, ⁴University of Miami, Coral Gables, FL, USA, ⁵Victoria University of Wellington, Wellington, New Zealand, ⁶Dartmouth College, Hanover, NH, USA
- 2030 Voxel-level connectivity changes also influence graph theory measures of brain networks**
Wenjing Luo¹, Abigail Greene¹, Todd Constable¹
¹Yale University, New Haven, CT
- 2031 Temporal Dynamics of Cerebral Blood Flow during the First Year after Traumatic Brain Injury**
Naomi Gaggi^{1,2}, John Whyte³, Ze Wang⁴, Julia Torrellas¹, Sudipto Dolui⁵, Junghoon Kim¹
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- 2032 Altered white matter connections and microstructure of the striatum in obsessive-compulsive disorder**
Hyungyou Park¹, Taekwan Kim¹, Yoo Bin Kwak¹, Minah Kim^{2,3}, Jun Soo Kwon^{1,2,3}
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- 2033 Simultaneously acquired EEG and fMRI BOLD signals reflecting Spatiotemporal features of Mindfulness**
JaeEon Kang¹, Changha Lee¹, Yeji Kim¹, Jong-Hwan Lee¹
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- 2034 Decoding Pain from EEG based on Multi-Source Domain Adaptation Neural Network Autoencoder**
 Jiahao Wang^{1,2}, Zhiguo Zhang^{1,2}
¹School of Biomedical Engineering, Health Science Center, Shenzhen University, Shenzhen 518060, China, ²Guangdong Provincial Key Laboratory of Biomedical Measurements and Ultrasound Imaging, Shenzhen University, Shenzhen, China
- 2035 Neural arbitrator dysfunction forming excessive habitual actions in obsessive-compulsive disorder**
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- 2036 Effect of 2D and 3D perspective on spatial cognition representation**
 Xiaoyu Zhang^{1,2}, Sunao Iwaki^{1,2}
¹Natl Inst Adv Indust Sci & Tech (AIST), Tsukuba, Japan, ²University of Tsukuba, Tsukuba, Japan
- 2037 Structural volume changes induced by gait training in patients with Parkinson's disease**
 Eunkyung Kim¹, Heejae Kim², Seo Jung Yun², Min-Gu Kang², Hyun lee Lee², Byung-Mo Oh², Han Gil Seo²
¹Seoul National University Hospital, Seoul, Korea, Republic of, ²Seoul National University Hospital, Seoul
- 2038 Sex Difference in Simulated tDCS Current Across Young, Middle-Aged and Older Adults**
 SAGARIKA BHATTACHARJEE¹, Rajan Kashyap¹, Alicia Goodwill¹, Beth O'Brien², Brenda Rapp³, Kenchi Oishi³, John Desmond³, Annabel Chen¹
¹Nanyang Technological University, Singapore, Singapore, ²National Institute of Education, Singapore, Singapore, ³The Johns Hopkins University, Baltimore, MD
- 2039 Effects of SENSE1 Image Reconstruction on tSNR and Explainable Variance in Multi-channel fMRI**
 An Vu^{1,2}, Matteo Visconti di Oleggio Castello³, Katherine Rankin¹, Jack Gallant³
¹University of California, San Francisco, San Francisco, CA, ²San Francisco Veteran Affairs Health Care System, San Francisco, CA, ³University of California, Berkeley, Berkeley, CA
- 2040 Review: Quantitative EEG in Disorders of Consciousness**
 Betty Wutzl¹, Stefan Golaszewski², Kenji Leibnitz³, Alexander Kunz², Stefan Leis², Kerstin Schwenker², Aljoscha Thomschewski², Eugen Trinka²
¹Osaka University, Suita, Osaka, ²Paracelsus Medical University, Salzburg, Salzburg, ³National Institute of Information and Communications Technology, Suita, Osaka
- 2041 Voxel-based morphometry reveals cerebellar brain volume differences associated with subclinical ADHD**
 HARUKA ASAOKA¹, Yasuko Tatewaki¹, Izumi Matsudaira², Hikaru Takeuchi³, Ryuta Kawashima⁴, Yasuyuki Taki⁵
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- 2042 Assessing functional connectivity beyond Pearson's correlation**
 Hecheng Jin¹, Julian Ramirez¹, Ronak Mehta², Joshua Vogelstein², Michael Milham¹, Ting Xu¹
¹Child Mind Institute, New York, NY, ²Johns Hopkins University, Baltimore, MD
- 2044 A data-driven approach to fine-grained segmentation of human brain white matter bundles**
 David Bloom¹, John Kruper¹, Jason Yeatman², Ariel Rokem¹
¹University of Washington, Seattle, WA, ²Stanford University, Stanford, CA
- 2045 Challenges and impacts of spatial smoothing on high-resolution structural connectomes**
 Sina Mansour L.¹, Vanessa Cropley², Andrew Zalesky¹
¹The University of Melbourne, Melbourne, Victoria, ²Melbourne Neuropsychiatry Centre, University of Melbourne, Melbourne, Victoria
- 2046 Cortical plasticity for auditory spatial processing in patients with unilateral hearing loss**
 Lee seul Shim¹, Ja Hee Kim^{1,2}, Hyo-Jeong Lee^{1,2}
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- 2047 Characterizing EEG Correlates of Viewer Engagement in Flyer Theater**
 Meng-Yu Yao¹, Shang-You Yang¹, Yi-Hsiang Lien¹, Yuan-Pin Lin¹
¹National Sun Yat-sen University, Kaohsiung, Taiwan
- 2048 Layer dependent facilitation of neural activity during rhythmic movement in the human M1**
 Yinghua Yu^{1,2}, Ikuhiro Kida^{1,2}, Nobuhiro Hagura^{1,2}
¹Center for Information and Neural Networks, NICT, Osaka, Japan, ²Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan
- 2049 Eyes open and closed resting-state conditions: a comparison of DMN functional connectivity pattern**
 Chenyang Jiang¹, Tao Zhang²
¹University of Electronic Science and Technology of China, Chengdu, Sichuan, ²Xihua University, Chengdu, Sichuan
- 2050 Exploring Spatio-Spectral EEG Correlates of Emotional Responses during Piano Playing**
 Jachin Pousson¹, Yi-Wei Shen², Yuan-Pin Lin², Aleksandras Voicikas³, Inga Griškova-Bulanova³, Valdis Bernhofs¹, Lana Burmistrova¹, Evaldas Pipinis³
¹Jāzeps Vītols Latvian Academy of Music, Riga, Latvia, ²National Sun Yat-sen University, Kaohsiung, Taiwan, ³Vilnius University, Vilnius, Lithuania
- 2051 Effective Connectivity in Patients with and without Mild Cognitive Impairment in Parkinson's Disease**
 Hannah Cummins¹, Ian Harding¹, Adeel Razi¹
¹Monash University, Clayton, Victoria
- 2052 Auditory training enhances frontoparietal attention network to improve speech in noise performance i**
 Lee seul Shim¹, Ja Hee Kim^{1,2}, Hyo-Jeong Lee^{1,2}
¹Laboratory of Brain & cognitive Sciences for convergence medicine, Hallym University College of Medi, Anyang, Korea, Republic of, ²Department of Otorhinolaryngology-Head and Neck Surgery, Hallym University College of Medicine, Chuncheon, Korea, Republic of

- 2053 Examining the structural correlates of amyloid-beta in people with dementia with Lewy bodies**
 Sanuji Gajamange¹, Nawaf Yassi¹, KaiSin Chin¹, Patricia Desmond², Victor Villemagne³, Christopher Rowe⁴, Rosie Watson¹
¹Walter and Eliza Hall Institute of Medical Research, Melbourne, Victoria, ²Department of Radiology, Royal Melbourne Hospital, University of Melbourne, Melbourne, Victoria, ³University of Melbourne, Melbourne, Victoria, ⁴Austin Hospital, Melbourne, Victoria
- 2054 Effect of Blockade of T-type Calcium Channels on Quasi-periodic Patterns (QPP) in the Brain**
 Vahid Khalilzad Sharghi¹, Eric Maltbie², Wen-Ju Pan¹, Shella Keilholz¹, Gopinath Kaundinya²
¹Emory University/Georgia Institute of Technology, Atlanta, GA, ²Emory University, Atlanta, GA
- 2055 Identifying neural substrates of fluid intelligence in the adolescence brain using brain entropy**
 Donghui Song¹, Lian-Dong Lin², Lei Zhang¹, Ze Wang¹
¹University of Maryland School of Medicine, Baltimore, MD, ²Heilongjiang University, Harbin, Heilongjiang
- 2056 The effects of presentation mode and memory load on alpha activity during working memory maintenance**
 Ya-Ting Chen¹, Bo-Cheng Kuo¹
¹Department of Psychology, National Taiwan University, Taipei, Taiwan
- 2057 Leveling up: How broader levels of inference improve power in functional connectivity**
 Stephanie Noble¹, Dustin Scheinost¹
¹Yale University, New Haven, CT
- 2058 The Perturbational Complexity Index reliably assesses patients with disorders of consciousness**
 Gabriel Hassan¹, Erica Varoli^{2,3}, Simona De Salvo⁴, Federica Avorio², Nunzio Muscarà⁴, Francesco Corallo⁴, Angela Comanducci⁵, Angelo Quartarone⁶, Silvia Marino⁴, Lilla Bonanno⁴, Vincenzina Lo Re², Leonor Josefina Romero-Lauro^{2,3}, Silvia Casarotto^{1,5}
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- 2059 Adaptive neurofeedback stimulation to support smoking cessation**
 Amelie Haugg¹, Mirjam Habegger², Anna Speckert³, Sarah Meier⁴, Ronald Sladky⁵, Philipp Stämpfli⁶, Cindy Lor⁵, Ellen van Maren⁷, Apurva Watve², Andrei Manoliu⁸, Erich Seifritz⁸, Matthias Kirschner⁹, Marcus Herdener⁸, Boris Quednow², Frank Scharnowski⁵
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- 2060 Functional Connectivity Eigenvector Centrality Dynamics Relate to Amyloid Deposition in Pre-AD**
 Luigi Lorenzini¹, Silvia Ingala¹, Maarten Slebe¹, Viktor Wottschel¹, Henk Mutsaerts^{1,2}, Betty Tijms³, Haller Sven^{4,5}, Kaj Blennow⁶, Giovanni Frisoni^{7,8}, Gael Chételat⁹, Pierre Payoux¹⁰, Lage-Martinez Pablo¹¹, Waldman Adam^{12,13}, Joanna Wardlaw¹², Craig Ritchie¹², Juan Domingo Gisbert^{14,15,16,17}, Pieter Jelle Visser^{3,18}, Philip Scheltens³, Frederik Baarkhof^{1,19}, Alle Meije Wink¹
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- 2061 Variations in extrastriate body area representational patterns in gender incongruence**
 Adnan Majid¹, Nicco Reggente¹, Ivanka Savic², Jamie Feusner³
¹University of California, Los Angeles, Los Angeles, CA, ²Karolinska Institutet, Stockholm, Stockholm, ³University of California Los Angeles, Los Angeles, CA
- 2062 Atypical Development of Broca's Area in a Large Family with Inherited Stuttering**
 Daisy Thompson-Lake¹, Susan Block², Samantha Turner³, Sheena Reilly^{3,4}, Elaina Kefalianos^{3,5}, Alexandra Bonthron¹, Ingrid Scheffer^{6,3,7,8}, Frederique Liegeois¹, Angela Morgan^{3,2,5}
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- 2064 Comparing acoustic, semantic and neural network models of natural sound representation**
 Bruno Giordano¹, Michele Esposito², Elia Formisano²
¹INT UMR 7289, CNRS - Aix Marseille University, Marseille, France, ²Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands
- 2065 Higher prefrontal-parietal entropy is associated with impulsivity and drug use risk in adolescence**
 Donghui Song¹, Lian-Dong Lin², Lei Zhang¹, Ze Wang¹
¹University of Maryland School of Medicine, Baltimore, MD, ²Heilongjiang University, Harbin, Heilongjiang

- 2066 Graph 2.0: A software for the analysis of multilayer brain connectivity with graph theory**
Pablo Emiliano Gomez Ruiz¹, Giovanni Volpe², Joana Pereira³, Mite Mijalkov⁴, Anna Canal Garcia⁴, Yu-Wei Chang¹
¹Gothenburg University, Gothenburg, Västra Götaland, ²Goteborg University, Gothenburg, Västra Götaland, ³Karolinska Institute, Stockholm, Sweden, ⁴Karolinska Institutet, Stockholm, Stockholms län
- 2067 Multivariate association between neural activation during reward processing and psychopathology**
Yara Toenders¹, Saige Rutherford², Roselyne Chauvin³, Andre Marquand⁴, Lianne Schmaal⁵
¹Orygen, University of Melbourne, Melbourne, Victoria, ²Donders Institute, Nijmegen, MI, ³Donders, Radboud University, Nijmegen, Gelderland, ⁴Radboud University, Nijmegen, Gelderland, ⁵Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne, Australia
- 2068 What our morning coffee tells us about face perception**
Andreas Jansen¹, Ina Thome¹
¹University of Marburg, Marburg, Hessen
- 2070 Predicting Executive Functioning from Brain Networks: Structure–Function Differences and Age Effects**
Marisa Heckner^{1,2}, Edna Cieslik^{1,2}, Felix Hoffstaedter^{1,2}, Simon Eickhoff^{1,2}, Kaustubh Patil^{1,2}, Robert Langner^{1,2}
¹Institute of Neuroscience and Medicine (INM-7: Brain and Behaviour), Research Centre Jülich, Jülich, Germany, ²Institute of Systems Neuroscience, Heinrich Heine University Düsseldorf, Düsseldorf, Germany
- 2072 AnonyMi: MRI de-identification with geometrical preservation**
Ezequiel Mikulan¹, Simone Russo¹, Flavia Zauli¹, Pergiorgio d’Orio², Sara Parmigiani¹, William Knight³, Silvia Squarza⁴, Pierluigi Perri¹, Francesco Cardinale⁵, Pietro Avanzini⁶, Andrea Pigorini¹
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- 2073 Volume deficit in hippocampal CA subfield in subjects with high genetic loading for schizophrenia**
Sunah Choj¹, Taekwan Kim¹, Minah Kim^{2,3}, Jun Soo Kwon^{1,2,3}
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- 2074 Medial prefrontal cortex commonly involved in reading preferences and emotions from others’ faces**
KUN IL KIM¹, Jinhee Kim¹, Hackjin Kim¹
¹Korea University, Seoul, South Korea
- 2075 Increased brain-heart coherence and brain connectivity during mindfulness-based stress reduction**
Junling GAO¹, Rui Sun¹, Hang Kin Leung¹, Bonnie wai yan Wu¹, Hin Hung Sik¹
¹The University of Hong Kong, Hong Kong, HI
- 2076 Automatic selection and deletion of artefactual segments in neonatal EEG**
Laura Smets^{1,2}, Gabriella Tamburro¹, Katrien Jansen³, Anneleen Dereymaeker³, Gunnar Naulaers³, Maarten De Vos^{2,3}, Silvia Comani¹
¹Dep. of Neuroscience, Imaging and Clinical Sciences, University “G. d’Annunzio”, Chieti, Italy, ²Dep. of Electrical Engineering, KU Leuven, Leuven, Belgium, ³Dep. of Development and Regeneration, UZ Leuven, Leuven, Belgium
- 2077 Spatio-temporal neural pathways in emotions regulated by mindfulness and mind-wandering**
Changha Lee¹, JaeEon Kang¹, Yeji Kim¹, Jong-Hwan Lee¹
¹Department of Brain and Cognitive Engineering, Korea University, Seoul, Seoul
- 2078 Word Salience during Sentence Reading**
Sharmistha Jat¹, Partha Talukdar¹, Tom Mitchell²
¹Indian Institute of Science, Bengaluru, Karnataka, ²Carnegie Mellon University, Pittsburgh, PA
- 2079 Midcingulo-insular connectivity decreases in subjective cognitive decline**
Adriana Ruiz-Rizzo¹, Raymond Viviano², Jessica Damoiseaux²
¹LMU Munich, Munich, Bavaria, ²Wayne State University, Detroit, MI
- 2080 Harmonic Removal Regression (HarmoRemo): a novel method for removing harmonic components in M/EEG**
Mina Jamshidi Idaji^{1,2,3}, Juanli Zhang^{1,4}, Arno Villringer^{1,5}, Vadim Nikulin^{1,6}
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- 2081 Somatotopy of somatosensory working memory during vibro-tactile frequency discrimination**
Finn Rabe¹, Sanne Kikkert², Nicole Wenderoth¹
¹Neural Control of Movement Lab, Department of Health Sciences and Technology, ETH Zurich, Zurich, ²Spinal Cord Injury Center, Balgrist University Hospital, University of Zurich, Zurich
- 2082 Network functional connectivity under naturalistic stimulation**
Lisa Mochalski^{1,2}, Patrick Friedrich¹, Kaustubh R. Patil^{1,2}, Simon Eickhoff^{1,2}, Susanne Weis^{1,2}
¹Institute of Neuroscience and Medicine, INM-7: Brain & Behaviour, Forschungszentrum Jülich, Jülich, Germany, ²Heinrich-Heine-Universität, Düsseldorf, Germany

- 2083 Cortical excitability changes non-linearly in dexmedetomidine sedation**
 Paolo Cardone^{1,2}, Olivier Bodart^{1,2,3}, Murielle Kirsch^{4,5}, Julien Sanfilippo⁴, Alessandra Virgilito⁶, Charlotte Martial^{1,2}, Jessica Simon⁷, Sarah Wannez¹, Robert Sanders⁸, Steven Laureys^{1,2}, Vincent Bonhomme^{4,5,9}, Olivia Gosseries^{1,2}
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- 2084 Temporally Adaptive Source Reconstruction (TASER)**
 Ryan Timms¹, Andrew Quinn¹, Evan Roberts¹, Chetan Gohil¹, Gareth Barnes², James Bonaiuto³, Stephen Smith¹, Matthew Brookes⁴, Mark Woolrich¹
¹University of Oxford, Oxford, Oxfordshire, ²University College London, London, London, ³Institut des Sciences Cognitives, CNRS, Lyon, Lyon, ⁴University of Nottingham, Nottingham, Nottinghamshire
- 2085 Linking structural and functional imaging modalities to characterize atypical face processing in ASD**
 Dorothea Floris¹, Alberto Llera², Ting Mei³, Natalie Forde⁴, Carolin Moessnang⁵, Emily Jones⁶, Luke Mason⁷, Rianne Haartsen⁷, Christine Ecker⁸, Jan Buitelaar⁹, Christian Beckmann¹⁰
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- 2086 Face Processing Efficiency Is Related to Aberrant Prefrontal Connectivity in Adolescent Depression**
 David Willinger¹, Iliana Karipidis², Carolina Rauch¹, Isabelle Häberling¹, Gregor Berger¹, Susanne Walitza¹, Silvia Brem³
¹University of Zurich, Zurich, Zurich, ²Stanford University, Stanford, CA, ³Department of Child and Adolescent Psychiatry and Psychotherapy, University Hospital of Psychiatry, Zurich, Zurich
- 2087 MTE-NODDI made practical with learning-based acquisition and parameter-estimation acceleration**
 Ting Gong¹, Hongjian He², Jianhui Zhong^{2,3}, Hui Zhang¹
¹Centre for Medical Image Computing, Department of Computer Science, University College London, London, England, UK, ²Center for Brain Imaging Science and Technology, Zhejiang University, Hangzhou, Zhejiang, China, ³Department of Imaging Sciences, University of Rochester, Rochester, NY
- 2088 MVPA classification of natural sounds in early "visual" cortex of congenitally blind individuals**
 Petra Vetter¹, Lukasz Bola², Lior Reich³, Matthew Bennett⁴, Lars Muckli⁵, Amir Amedi⁶
¹University of Fribourg, Fribourg, Switzerland, ²Polish Academy of Sciences, Warsaw, Poland, ³Hebrew University of Jerusalem, Jerusalem, Israel, ⁴Université catholique de Louvain, Louvain, Belgium, ⁵University of Glasgow, Glasgow, United Kingdom, ⁶Reichman University, Herzliya, Israel
- 2089 Post-traumatic complaints and resting-state connectivity in elderly with mild traumatic brain injury**
 Mayra Bittencourt-Villalpando¹, Harm Jan van der Horn¹, Sebastián Balart-Sánchez¹, Jan-Bernard Marsman¹, Natasha Maurits¹, Joukje van der Naalt¹
¹University Medical Center Groningen, Groningen, The Netherlands
- 2090 DMN co-activation in young adults at genetic risk for Alzheimer's disease: an HCP replication study**
 Lara Mentink^{1,2}, João Guimaraes², Emma Sprooten², Marcel Olde Rikkert^{1,2}, Koen Haak², Christian Beckmann^{2,3}
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- 2091 Comparing structural covariance regions in humans and chimpanzees**
 Sam Vickery^{1,2}, Kaustubh R. Patil^{1,2}, Robert Dahnke³, William D. Hopkins⁴, Chet C. Sherwood⁵, Svenja Caspers^{6,7,8}, Simon Eickhoff^{1,2}, Felix Hoffstaedter^{1,9}
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- 2092 Genetic and environmental variants linked with higher segregation of brain networks and cognition**
 Julia Neitzel^{1,2}, Rainer Malik², Ryan Muetzel¹, Maria Knol¹, Hazel Zonneveld¹, Marios Georgakis², Nicolai Franzmeier², Anna Rubinski², Martin Dichgans², Arfan Ikram¹, Meike Vernooij¹, Michael Ewers²
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2095 Insular brain-to-brain concordance supports causal patient-clinician facial expression dynamics

Dan-Mikael Ellingsen¹, Andrea Duggento², Kylie Isenburg³, Changjin Jung⁴, Jeungchan Lee⁵, Jessica Gerber⁵, Ishtiaq Mawla⁵, Roberta Sclocco⁶, Robert Edwards⁷, John Kelley⁸, Irving Kirsch⁹, Ted Kaptchuk⁹, Nicola Toschi², Vitaly Napadow⁶

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2096 Taste coding in the human insular cortex

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2097 Transcranial direct current stimulation reverses stroke-induced network alterations in mice

Stefan Blaschke^{1,2,3}, Susan Vlachakis^{1,2}, Niklas Pallast¹, Monika Rabenstein¹, Sabine Vay¹, Dirk Wiedermann², Gereon Fink^{1,3}, Mathias Hoehn⁴, Markus Aswendt^{5,3}, Michael Schroeter^{5,2,3}, Maria Rüger^{5,2,3}

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2098 Polygenic Prediction of Subcortical Volumes and Cross-ancestry Validation

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2099 Shifting gradients of cortical organization mark the transition from childhood to adolescence

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2100 Comparison of BOLD and VASO in submillimeter high-resolution fMRI Based on BISEPI at 7T

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2101 Alcohol Use Impacts Cortical Reward Network Structure in Bipolar Disorder

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2103 In vivo tractography of the human neonatal reward network and energy homeostasis pathways

Julie Nihouarn Sigurdardottir¹, Jacques-Donald Tournier¹, Maximilian Pietsch¹, Daan Christiaens¹, Lucilio Cordero-Grande², Emer Hughes¹, Joseph V. Hajnal¹, David Edwards¹, Lucilla Poston³, Mary Rutherford¹

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2105 Modulations of insular oscillations exerted by sustained painful and non-painful thermal stimuli

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2106 Neural Variability of Crosstalk Effects in Dual-Tasking and Its Modulation by Age

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2107 Sex differences in functional brain connectivity over the course of aging in a large cohort

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2111 Sex effects in adolescent longitudinal development of subcortical volumes in two European samples

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- 2112 Approaches to the in-utero fMRI denoising in the developing Human Connectome Project (dHCP)**
Vyacheslav Karolis^{1,2}, Lucilio Cordero-Grande^{3,4}, Sean Fitzgibbon¹, Emer Hughes⁴, Anthony Price⁴, Ahmed Fetit⁵, Seyedeh-Rezvan Farahibozorg¹, Jonathan O'Muirheartaigh⁶, Tomoki Arichi², Rueckert Daniel⁵, David Edwards², Joseph V. Hajnal⁴, Stephen Smith¹, Eugene Duff¹
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- 2113 Functional evidence for adjacent arrangement of domain-general and sensory-biased frontal regions**
Moataz Assem¹, Sneha Shashidhara², Matthew Glasser³, John Duncan¹
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- 2114 EEG slowing and cholinergic system integrity in mild cognitive impairment with Lewy bodies**
Julia Schumacher¹, John-Paul Taylor¹, Calum Hamilton¹, Michael Firbank¹, Paul Donaghy¹, Ruth Cromarty¹, Gemma Roberts¹, Nicola Barnett¹, Louise Allan², Rory Durcan¹, John O'Brien³, Alan Thomas¹
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- 2115 Efficient validation of dynamical whole-brain models via mathematical optimization algorithms**
Kevin Wischnewski^{1,2,3}, Simon Eickhoff^{1,2}, Oleksandr Popovych^{1,2}
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- 2116 Evaluation of surrogate respiration signals derived from ECG acquired during simultaneous EEG-fMRI**
Inês Esteves¹, Ana Fouto¹, Amparo Ruiz-Tagle¹, Athanasios Vourvopoulos¹, Marta Xavier¹, Nuno Silva², Raquel Gil-Gouveia³, Agostinho Rosa¹, Patrícia Figueiredo¹
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- 2117 Translingual Neural Stimulation induces Resting-State Functional Connectivity Changes in TBI patient**
Jiancheng Hou¹, Rosaleena Mohanty², Veena Nair³, Yuri Danilov⁴, Kurt Kaczmarek⁴, Beth Meyerand⁵, Mitchell Tyler⁶, Vivek Prabhakaran³
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- 2118 Cerebellar connectivity in male batterers is associated with irrational thoughts about women**
Sofia Amaoui¹, Agar Marín-Morales^{1,2}, Cristina Martín-Pérez³, Miguel Pérez-García^{1,2}, Juan Verdejo-Román^{3,4}
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- 2119 TOEM task: Empathy and ToM in face to Intimate Partner Violence (IPV) and unpleasant situations**
Agar Marín-Morales^{1,2}, Sofia Amaoui¹, Miguel Pérez-García^{1,2}, Juan Verdejo-Román^{3,4}
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- 2120 TDCS with passive motor mobilisation modulates thalamo-cortical activity during active movement**
Davide Aloj¹, Melanie Lafanechere¹, Roya Jalali², Davinia Fernández-Espejo¹
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- 2121 Lifespan Big Data Normative Modeling of Internalizing Disorders**
Saige Rutherford¹, Christian Beckmann², Henricus Ruhe¹, Andre Marquand²
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- 2122 Brain structural associations with depression in a large early adolescent sample (the ABCD cohort)**
Niamh MacSweeney¹, Xueyi Shen¹, Stella Chan¹, Miruna Barbu¹, Mark Adams¹, Stephen Lawrie¹, Liana Romaniuk¹, Andrew McIntosh¹, Heather Whalley¹
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- 2123 Structural Correlates of Language Processing in Primary Progressive Aphasia**
Curtiss Chapman¹, Maryna Polyakova², Karsten Mueller², Janine Diehl-Schmid³, Markus Otto⁴, Adrian Danek⁵, Gesa Hartwigsen⁶, Matthias Schroeter⁷
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- 2125 Baselines in computing ERP components for midline and lateral visual attention**
Mattia Doro¹, Roberto Dell'Acqua¹, Sabrina Brigadoi¹, Brandi Lee Drisdelle², Pierre Jolicœur³
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- 2126 A browser-based tool for interactive brain data visualization**
Seung Hye Park¹, Won Hee Lee¹
¹Kyung Hee University, Yongin, Republic of Korea

- 2127 MEG alpha power decodes creative vs non-creative stories**
 Clara Rastelli¹, Antonino Greco¹, Christoph Braun², Chiara Finocchiaro¹, Nicola De Pisapia¹
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- 2128 Long-term spaceflight induces differentially sustainable and reversible functional effects**
 Steven Jillings¹, Ekaterina Pechenkova², Elena Tomilovskaya³, Alena Rumshiskaya⁴, Liudmila Litvinova⁴, Inna Nosikova³, Ilya Rukavishnikov³, Angelique Van Ombergen¹, Stefan Sanaert⁵, Paul Parizel⁶, Valentin Sinitsyn⁷, Victor Petrovichev⁴, Peter zu Eulenburg⁸, Ben Jeurissen¹, Jan Sijbers¹, Jitka Annen⁹, Steven Laureys⁹, Athena Demertzi⁹, Floris Wuylts¹
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- 2129 Intracortical electrical stimulation assessment during concurrent HD-EEG recording**
 Sara Parmigiani¹, Simone Russo¹, Ezequiel Mikulan¹, Flavia Zauli¹, Annalisa Rubino², Ivana Sartori², Pergiorio d'Orio², Anna Cattani¹, Matteo Fecchio³, Jacopo Favaro⁴, Jacopo Lanzone⁵, Marcello Massimini¹, Andrea Pigorini¹
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- 2130 The Medial Temporal Lobe in Resting-State Networks**
 Sara Seoane¹, Cristián Modroño¹, José Luis González Mora¹, Niels Janssen¹
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- 2131 A sparse connectome spectrum as a canonical basis for brain activity**
 Joan Rué Queralt¹, Katharina Glomb², David Pascucci³, Sebastien Tourbier⁴, Margherita Carboni⁵, Serge Vulliémoz⁵, Gijis Plomp⁶, Patric Hagmann²
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- 2132 Comparison of single- and multi-echo pre-processing strategies for motion correction of rs-fMRI**
 Mihail Dimitrov¹, Nichol Wong², Dafnis Batalle¹, Owen O'Daly¹, Sydney Leaman¹, Lucas Franca¹, Andreia Pereira¹, Hester Velthuis¹, Claire Ellis¹, Francesca Ponteduro¹, Mark Tricklebank¹, Declan Murphy¹, Grainne McAlonan³, Eileen Daly¹
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- 2133 Improving g-ratio mapping by a principled 3-point calibration**
 Mohammad Ashtarayeh¹, Jan Malte Oeschger¹, Maria Morozova^{2,3}, Tobias Streubel¹, Sebastian Papazoglou¹, Henriette Rusch³, Martina Callaghan⁴, Mark D Does^{5,6,7,8}, Markus Morawski^{2,3}, Nikolaus Weiskopf^{2,9}, Siawoosh Mohammadi^{1,2}
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- 2134 Harmonizing the variabilities in multi-center imaging study on cerebral small vessel disease**
 Bonnie Lam¹, Qianyun Chen¹, Lin Shi¹, Weitian Chen¹, Jill Abrigo¹, Vincent Mok¹
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- 2135 Is it possible to modulate locus coeruleus activity via volitional control of pupil diameter?**
 Sarah Meissner¹, Marc Bächinger¹, Adrian Taubner¹, Nicole Wenderoth¹
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- 2136 Three Decades of Research on the Neurobiology of Language: A Synthesis of 412 Neuroimaging Studies**
 Sabrina Turker¹, Gesa Hartwigsen¹, Johanna Stumme², Simon Eickhoff², Svenja Caspers²
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- 2137 Dissociable patterns of rich and diverse club development in youth**
 Max Bertolero¹, Adam Pines¹, Bart Larsen², Azeez Adebimpe¹, Raquel Gur¹, Ruben Gur¹, Tyler Moore¹, David Roalf¹, Russell Shinohara¹, Danielle Bassett¹, Theodore Satterthwaite¹
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2139 SANDI-AMICO: an open-source toolbox for fast Soma And Neurite Density Imaging (SANDI) with AMICO

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2140 Gray Matter Changes Associated with Hyperacusis

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2141 The Latent Network Geometry of The Brain: Toward Geometrical Markers in Brain Network Science?

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2143 DBS of subthalamic nucleus impairs proactive inhibitory control in Parkinson disease

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2144 Complex regional pain syndrome: thalamic GMV atrophy and altered rsfMRI connectivity to the ACC

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2145 Olfactory tract diffusion measures of early Parkinson's disease patients using 7T MRI

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2147 Investigating white matter microstructure in adolescent early onset psychosis via ENIGMA consortium

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2149 An open MRI dataset for multiscale neuroscience

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- 2150 A low-dimensional connectome manifold governs the organization and plasticity of social brain function**
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- 2151 Neuroimaging-based Prediction of Cognition and Behavior for Mental Disorders and Health**
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- 2152 Structural covariance network changes in the common epilepsies: a worldwide ENIGMA study**
Sara Larivière¹, Raul Rodriguez-Cruces², Jessica Royer³, Maria Eugenia Caligiuri⁴, ENIGMA Epilepsy Working Group⁵, Angelo Labate⁶, Antonio Gambardella⁷, Luis Concha⁸, Sanjay Sisodiya⁹, Carrie McDonald¹⁰, Paul Thompson¹¹, Andrea Bernasconi¹², Neda Bernasconi¹², Boris Bernhardt¹²
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- 2153 Vision and hearing share a common representation in STS despite the lack of multisensory experience**
Francesca Setti¹, Giacomo Handjaras¹, Andrea Leo¹, Matteo Diano², Valentina Bruno², Carla Tinti², Luca Cecchetti¹, Davide Bottari¹, Francesca Garbarini², Pietro Pietrini¹, Emiliano Ricciardi¹
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- 2154 Evaluation of the validity of ALE meta-analytic contrasts**
Vincent Küppers¹, Edna Cieslik^{1,2}, Adina Wagner¹, Simon Eickhoff^{1,2}, Robert Langner^{1,2}, Veronika Müller^{1,2}
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- 2155 Structural and Functional Asymmetries in the Neonatal Cerebral Cortex**
Logan Williams¹, Sean Fitzgibbon², John Cupitt³, Ralica Dimitrova¹, Tanya Poppe¹, Jelena Bozek⁴, Andreas Schuh³, Antonios Makropoulos¹, Jonathan O'Muircheartaigh¹, Eugene Duff², Joseph V. Hajnal¹, Daniel Rueckert^{3,5}, Stephen Smith², David Edwards¹, Emma Robinson¹
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- 2156 Local Alterations in Cortical Hierarchy of TIA Patients with Movement Difficulties**
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- 2160 Functional connectivity and glucose metabolism differentially drive learning-induced neuroplasticity**
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- 2161 EEG functional connectivity features predict the activity of the fMRI default mode network**
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- 2163 Simultaneous human intracerebral stimulation and HDEEG, ground-truth for source localization methods**
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- 2164 Population-based sex differences in stroke lesion connectivity**
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- 2165 The "Complexe" - a spatiotemporal complexity architecture of spontaneous human brain signals**
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- 2166 Task-specific Interactions of Overlapping Networks Across Key Cognitive Domains**
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- 2167 Transcriptomically-constrained generative models of the human connectome**
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- 2168 3D reconstruction of 20 neurotransmitter receptor atlases from 2D autoradiographs**
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- 2169 Deviation from Typical Brain Activity during Naturalistic Stimulation Predicts Personality Traits**
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- 2170 Classification of Patients with Epilepsy and Healthy Subjects Based on Structural MRI**
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- 2171 Effects of a highly challenging balance training in individuals with Parkinson's disease: an RCT**
Malin Freidle¹, Hanna Johansson¹, Alexander Lebedev¹, Urban Ekman¹, Ellika Schalling¹, Hanna Steurer¹, Per Svenningsson¹, Staffan Holmin¹, Martin Lövdén², William Thompson¹, Franziska Albrecht¹, Maria Hagströmer¹, Erika Franzén¹
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- 2172 Posterior cortical cognitive deficits are associated with tract alterations in Parkinson's disease**
Quentin DEVIGNES¹, Romain Viard², Nacim Betrouni¹, Guillaume Carey¹, Grégory Kuchcinski², Luc Defebvre³, Albert Leentjens⁴, Renaud Lopes², Kathy Dujardin¹
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- 2173 Longitudinal Structural Dysfunction Associated to Autistic Behaviors in MECP2 Duplicated Rats**
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- 2174 Psycho-socio-economic advantages protect depressed children from aberrant connectivity development**
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- 2175 Structural networks underlying tremor in Parkinson's disease**
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- 2176 Impact of Early Resumption of Physical Activity on Cerebral Perfusion after a Pediatric Concussion**
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- 2177 Myelination Differences of Stripes in Human V2: Preliminary Evidence from 7 T Quantitative MRI**
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- 2178 Individualized, histology-guided in vivo delineation of thalamic nuclei using track-density imaging**
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- 2179 Cannabidivarin modulates atypical striatal functional connectivity in autism spectrum disorder**
 Charlotte Pretzsch¹, Dorothea Floris², Bogdan Voinescu¹, Malka Elshahib¹, Maria Mendez¹, Robert Wichers¹, Laura Ajram¹, Glynis Ivin³, Martin Heasman³, Elise Pretzsch⁴, Steven Williams¹, Declan Murphy⁵, Eileen Daly¹, Grainne McAlonan¹
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- 2180 ADHD symptoms and brain structure: A case of confounding bias**
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- 2181 Subcortical structure areal expansion in the human compared to the chimpanzee and heritability**
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- 2182 Reproducibility of rs-fMRI Functional Connectivity Hemispheric Contrast to Lateralize Language**
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- 2183 Random-forest classification of psychogenic non-epileptic seizures and temporal lobe epilepsy**
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- 2185 Influence of Structural Connectivity on the Modeling of Resting-State Functional Dynamics**
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- 2186 Impact of analysis decisions on stability of brain-behavior CCAs**
 Markus Helmer¹, Shaun Warrington², Ali-Reza Mohammadi-Nejad^{2,3}, Jie Lisa Ji¹, Amber Howell¹, Stamatios Sotiropoulos^{2,4}, Alan Anticevic¹, John Murray¹
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- 2187 Imaging the Human Pain Matrix in Experimental Periodontal Pain**
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- 2189 Changes in regional white matter volumetry and microstructure during the post-adolescence period**
 Ami Tsuchida^{1,2,3}, Alexandre Laurent^{1,2,3}, Fabrice Crivello^{1,2,3}, Laurent Petit^{1,2,3}, Antonietta Pepe^{1,2,3}, Naka Beguedou¹, Christophe Tzourio^{4,1}, Bernard Mazoyer^{1,2,3,4}
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- 2190 Generalizing open publishing infrastructure: Experiences with the Journal of Open Source Software**
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- 2191 Meta Partial Least Squares for Large Scale Applications in Imaging Genetics**
 Andre Altmann¹, Neda Jahanshad², Paul Thompson³, Marco Lorenzi⁴
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- 2193 Performance Scaling for sMRI Surface Parcellations**
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- 2194 Multimodal MRI template construction from UK Biobank: Oxford-MM-0**
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- 2196 Towards objective scotomata assessment using fMRI-based retinotopic mapping: a connectomic approach**
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- 2197 Transmodal decoupling of human cortical microstructure and function is under genetic control**
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- 2198 Neural Basis of Social Approach-Avoidance Decision Making in Depression and Social Anxiety**
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- 2199 The Differential Roles of Positive and Negative Valence Systems in PTSD Development**
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- 2200 High-resolution hippocampal subfield volumes in Multiple Sclerosis**
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- 2201 Effect of obesity on arithmetic processing in preteens with high and low math skill**
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- 2202 Neural Circuit Modeling Captures Individual Variation in Functional Dynamics across Human Cortex**
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2203 Reconstructing voice from fMRI patterns using deep neural networks

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2206 Cortical vulnerability to neuropathologies predicted by genetic similarity to subcortical modules

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2207 The Effect of Gender Affirming Hormonal Therapy on Cerebrovascular Structure and Function

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2208 A multi modal approach for diagnosis of cognitive impairment

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2209 Cortical remodeling across the lifespan reveals structural vulnerability to neurodegeneration

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2210 Detecting imaging biomarkers for Alzheimer's disease via interpretable graph convolutional network

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2212 Cortical morphology in autism: Findings from an adaptive approach to gyrification indexing

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2213 Spontaneous Brain Activity is associated with SANS-based Negative Symptom Domains in Schizophrenia

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2214 Structural covariance in the sub-acute and chronic stages after pediatric traumatic brain injury

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2215 Benchmarking CNV prediction from rs-fMRI connectivity

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2216 Predicting Gaze Position with Deep Learning of Electroencephalography Data

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- 2218 Expertise During The Visual Analysis of Palaeolithic Abstract Engravings: an fMRI Study**
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- 2219 Characterization of relationship between MR microstructural metrics and memory in older subjects**
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- 2220 Cerebral blood flow in schizophrenia-spectrum disorders: a systematic review of MRI studies**
Delphine Raucher-Chéné¹, Olivier Percie du Sert¹, Claudine Gauthier^{2,3}, Mallar Chakravarty¹, Martin Lepage¹
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- 2222 Expanding the Texture Toolkit for Atlas-free Segmentation of Brain MRI**
Henry Dieckhaus¹, Rozanna Meijboom², Yair Mina³, Adam Waldman², Prasanna Parvathaneni⁴, Govind Nair¹
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- 2223 Motor cerebro-cerebellar network breakdown among different subtypes of Parkinson's disease**
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- 2224 The Courtois project on neuronal modelling - 2021 data release**
Julie Boyle¹, Basile Pinsard¹, Emilie Dessureault¹, François Lespinasse², François Paugam², Pravish Sainath², Valentina Borghesani³, Elizabeth DuPre⁴, Eva Alonso Ortiz⁵, Jonathan Armoza⁶, François Nadeau², Samie-Jade Allard Allard², Amal Boukhdhir², Agah Karakuzu⁷, Jeni Chen², Arnaud Boré¹, André Cyr¹, Paul-Henri Mignot¹, Yann Harel², Sylvie Belleville², Simona Brambati², Julien Cohen-Adad⁷, Adrian Fuente², Martin Hebart⁸, Karim Jerbi², Pierre Rainville², Pierre Bellec²
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- 2225 Mild sleep restriction affects EEG and behavioural correlates of vigilance after only one night**
Aaron Gibbings¹, Laura Ray¹, Nareg Berberian², Ali Shahidi Zandi³, Azhar Quddus⁴, Adrian Owen⁵, Felix Comeau⁶, Stuart Fogel¹
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- 2226 A large scale meta-analytic view on the functional organization of the auditory cortex**
Peer Herholz¹, Omer Faruk Gulban², Jérôme Dockès¹, Jean-Baptiste Poline¹
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- 2227 Spatially Dynamic Propagation in Resting fMRI Data**
Armin Irajil¹, Ashkan Faghiri², Robyn Miller³, Tulay Adali⁴, Vince Calhoun⁵
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- 2228 Overnight dynamics of brain Glutamate and GABA levels in children with ADHD**
Carina Volk¹, Valeria Jaramillo¹, Melanie Furrer¹, Mirjam Studler², Ruth O'Gorman Tuura¹, Reto Huber^{1,3}
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Max Owens¹, Matthew Albaugh¹, Nicholas Allgaier¹, Dekang Yuan¹, Gabriel Robert², Anthony Juliano³, Sage Hahn¹, Renata Cupertino³, Hugh Garavan¹
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- 2230 Group cohesive parcellation of rsfMRI generates superior parcel parsimony than current approaches**
Ajay Nemani¹, Mark Lowe¹
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- 2232 Time-varying functional brain connectivity: temporal resolution and temporal filtering effects**
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 Shannon Cahalan¹, Miriam Rosenberg-Lee¹, Hillary Levinson¹, Daniel Cruz², William Graves¹
¹Rutgers University - Newark, Newark, NJ, ²Saint Elizabeth University, Morristown, NJ
- 2234 Cortical surface area is influenced by genetic variation in enhancers gained during human evolution**
 Barbara Molz¹, Gökberk Alagöz¹, Dick Schijven¹, Clyde Francks¹, Jason Stein², Simon Fisher¹
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- 2235 Joint cmlCA: auto-linking structural and functional connectivity**
 Lei Wu¹, Vince Calhoun²
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 Preeti Kar¹, Jess Reynolds¹, Melody Grohs¹, Ben Gibbard¹, Christina Tortorelli¹, Catherine Lebel¹
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 Sinead King¹, Laurena Holleran¹, Karolina Rokita¹, David Mothersill¹, S Patlola¹, JP Kelly², A Corvin³, D.W Morris⁴, B Hallahan⁵, C McDonald⁵, D McKernan⁶, G Donohoe¹
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- 2238 Fluctuations in estradiol and progesterone are not related to high amplitude co-fluctuations in fMRI**
 Catherine Cai¹, Elvisha Dhamala², Laura Pritschet³, Tyler Santander³, Emily Jacobs³, Amy Kuceyeski²
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- 2241 Neural Mechanisms of Visual Word Recognition on Chinese, Pinyin and English**
 Shujie Geng¹, Wanwan Guo², Colin Blakemore³, Jianfeng Feng², Miao Cao²
¹Fudan University, Shanghai, Shanghai, ²Fudan University, Shanghai, Shanghai, ³City University of Hong Kong, Hongkong, Hongkong
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 Lisa Meyer-Baese¹, Amrit Kashyap², Xiaodi Zhang¹, Wen-Ju Pan¹, Shella Keilholz¹
¹Emory University / Georgia Institute of Technology, Atlanta, GA, ²Charite University Hospital, Berlin, Brandenburg
- 2243 High-precision Language Mapping through Multimodal fMRI, TMS and E-field Modelling**
 Maria Vasileiadi¹, Martin Tik¹, Anna-Lisa Schuler¹, Michael Woletz¹, David Linhardt¹, Christian Windischberger¹
¹Medical University of Vienna, Vienna, Austria
- 2244 Stepwise connectivity reveals functional vulnerability in age-related neurodegenerative disease**
 Silvia Basaia¹, Camilla Cividini², Edoardo Gioele Spinelli³, Veronica Castelnovo⁴, Michela Leocadi⁵, Davide Calderaro⁵, Elisa Canu⁵, Massimo Filippi⁵, Federica Agosta¹
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- 2245 Transient Connectivity Configurations of Triple-network Model in Obsessive-compulsive Disorder**
 Hailong Li¹, Xinyu Hu¹, Yingxue Gao¹, Lingxiao Cao¹, Jing Liu¹, Bin Li², Qiyong Gong¹, Xiaoqi Huang¹
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- 2247 A mindstream from perception to reaction observed with functional magnetic resonance phase imaging**
 Ernst RM Hülsmann¹
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 Pinar Ozbay¹, Catie Chang², Jacco de Zwart¹, Peter van Gelderen¹, Jeff Duyn¹
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- 2249 Longitudinal functional connectomic changes in post-surgery glioma patients**
 Beatrice Luciani¹, Francesca Saviola¹, Luca Zigioto², Stefano Tambalo¹, Domenico Zacà¹, Lisa Novello¹, Silvio Sarubbo², Jorge Jovicich¹
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- 2250 Brain Structural MRI Predicts Outcome of Surgical Treatment in Trigeminal Neuralgia**
 Silvia Basaia¹, Luigi Albano², Federica Agosta¹, Antonella Castellano³, roberta messina¹, Lina Raffaella Barzaghi³, Andrea Falini³, Pietro Mortini³, Massimo Filippi⁴
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- 2251 Machine Learning Predictions of Delayed Reward Discounting 1-year in the Future**
 Max Owens¹, Sage Hahn¹, Nicholas Allgaier¹, James MacKillop², Dekang Yuan¹, Anthony Juliano³, Matthew Albaugh¹, Alexandra Potter¹, Hugh Garavan¹
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- 2252 Evolution of Functional Connectome Harmonics during Infancy**
 H Patrick Taylor¹, Sahar Ahmad², Zhengwang Wu², Weili Lin², Li Wang², Gang Li², Pew-Thian Yap²
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- 2253 Functional connectome reorganization after pontine stroke is associated with better motor outcomes**
 Emily Olafson¹, Keith Jamison², Hesheng Liu³, Danhong Wang⁴, Aaron Boes⁵, Joel Bruss⁵, Amy Kuceyeski⁶
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- 2254 Neural predictors of anxiety and depression outcomes associated with the COVID-19 pandemic in children**
 Celia Romero¹, Lauren Kupis¹, Andrea Avellaneda¹, Adriana Baez¹, Michael Alessandri¹, Jason Nomi¹, Lucina Uddin²
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 Cornelius Eichner¹, Michael Paquette¹, Guillermo Gallardo¹, Christian Bock², Tobias Gräßle³, Jenny Jaffe³, Carsten Jäger¹, Evgeniya Kirilina^{1,4}, Ilona Lipp¹, Toralf Mildner¹, Torsten Schlumm¹, Felizitas Wermter², Harald Möller¹, Nikolaus Weiskopf^{1,5}, Catherine Crockford⁶, Roman Wittig⁶, Angela Friederici¹, Alfred Anwander¹
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 Fidel Alfaró Almagro¹, Ludovica Griffanti², Karla Miller³, Stephen Smith⁴
¹WIN FMRIB - University of Oxford, Oxford, Oxfordshire, ²WIN, FMRIB, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, United Kingdom, ³Wellcome Centre for Integrative Neuroimaging, FMRIB, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, Oxfordshire, ⁴University of Oxford, Oxford, Oxfordshire
- 2258 Estimating Multimodal Brain Age in the Whitehall II Imaging Sub-Study**
 Ann-Marie de Lange¹, Melis Anatürk², Sana Suri³, Tobias Kaufmann⁴, James Cole², Ludovica Griffanti³, Enikő Zsoldos³, Daria Jensen³, Nicola Filippini³, Archana Singh-Manoux⁵, Mika Kivimäki², Lars Westlye⁶, Klaus Ebmeier³
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- 2259 Maturation differences in functional connectivity networks of future binge drinkers**
 Alberto del Cerro León^{1,2}, Luis Antón-Toro^{3,2}, Ricardo Bruña^{3,2,4}, Ángeles Correas², Fernando Maestú^{3,2,4}, Luis Miguel García-Moreno⁵
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- 2260 Chronic inflammation is related to brain morphometry in children growing up in extreme poverty**
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- 2261 Repetitive Transcranial Magnetic Stimulation Alters Variability in Brain Function in Schizophrenia**
 Christin Schifani¹, Colin Hawco², Thomas Tan¹, Daniel Blumberger², Zafiris Daskalakis², Aristotle Voineskos²
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- 2262 A Cascaded 3D U-Net Model for Fast Automatic Segmentation of the Hippocampus**
 Swapna Premasiri^{1,2}, Aurelie Bussy^{1,3}, Gabriel A. Devenyi^{1,4}, M. Mallar Chakravarty^{1,2,3,4}
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- 2263 A Week in the Life of the Brain: Complementary Stable Metastates Emerge from Days of Continuous ECOG**
 Maxwell Wang¹, Michael Ward², Max G'sell³, R. Mark Richardson⁴, Avniel Ghuman²
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- 2264 Predictive modeling reveals subgroup-specific brain-phenotype relationships**
Abigail Greene¹, Xilin Shen¹, Stephanie Noble², C. Alice Hahn², Jagriti Arora¹, Fuyuze Tokoglu¹, Marisa Spann³, Daniel Barron⁴, Dustin Scheinost², Todd Constable²
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- 2265 Detection of true subgroups in structural MRI using unsupervised learning: Comparison of methods**
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- 2266 Neural tracking of continuous speech is associated with the degree of hearing loss in older adults**
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- 2267 Occipito-temporal sensitivity to numbers in children throughout pre- and elementary school**
Gorka Fraga González¹, Sarah Di Pietro¹, Georgette Pleisch¹, Jasmin Neuenschwander¹, Susanne Walitza¹, Daniel Brandeis¹, Iliana Karipidis², Silvia Brem³
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- 2268 Structural brain correlates predicting substance dependence**
Jonatan Ottino-González¹, Renata Cupertino¹, ZHIPENG CAO¹, Patricia Conrod², Scott Mackey¹, Hugh Garavan¹, ENIGMA Addiction working-group¹
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- 2269 Anatomic-functional characterization of voice-selective regions in the human frontal lobe**
Melina Cordeau¹, Ihsane Bichoutar¹, Alexandre Pron¹, Isaure Michaud¹, Guillaume Auzias², Pascal Belin¹
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- 2270 Improving the Quantification of the Lateral Geniculate Nucleus Using a 3D-Edge Enhancement Technique**
Mikhail Lipin¹, Jean Bennett¹, Manzar Ashtari¹
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- 2271 Abagen: An open-source toolbox for working with the Allen Human Brain Atlas**
Ross Markello¹, Golia Shafiei¹, Vincent Bazinet¹, Ying-Qiu Zheng², Bratislav Misić¹
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- 2272 Cortico-vocal coherence during speech perception of stress in a nonnative language**
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- 2273 Functional connectome harmonics as a basis for discrete brain states**
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- 2275 Effects of BOLD dynamic changes during micro-sleep on functional connectivity measures**
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- 2276 Deep behavioral phenotyping reveals two multivariate axes of default network covariance**
Manesh Girn¹, Danilo Bzdok², Amber Lockrow³, Roni Setton⁴, Laetitia Mwilambwe-Tshilobo¹, Gary Turner⁵, Nathan Spreng¹
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- 2277 An RCT of a Highly Challenging Balance Training and Its Effect on Brain and motor function in PD**
Franziska Albrecht¹, Joana Pereira¹, Malin Freidle¹, Hanna Johansson¹, Eric Westman¹, Erika Franzén¹
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- 2278 The Cuban Human Brain Mapping Project database**
Pedro Sosa¹, Lidice Garcia², Jorge Bayard³, Maria L. Bringas-Vega¹, Eduardo Vazquez², Iris Gil², Samir Das³, Cecile Madjar³, Trinidad Virues⁴, Zia Mohades³, Leigh MacIntyre³, christine rogers³, Shawn Brown³, Lourdes Urrutia⁴, Alan Evans³, Mitchell Sosa⁴
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- 2279 Multimodal, multilayer brain network topology correlates of healthy aging and executive functioning**
Lucas Breedt¹, Fernando Santos¹, Arjan Hillebrand², Liesbeth Reneman¹, Anne-Fleur van Rootselaar¹, Menno Schoonheim², Cornelis Stam², Anouk Ticheler¹, Betty Tijms³, Dick Veltman¹, Chris Vriend¹, Margot Wagenmakers⁴, Guido van Wingen¹, Jeroen Geurts², Anouk Schranter¹, Linda Douw²
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- 2281 Deep Learning Predicts Functional Centrality from Structural Centrality**
Josh Neudorf¹, Shaylyn Kress¹, Ron Borowsky¹
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- 2282 Mathematical modeling reveals the correlates of cognitive impairment across the FTL spectrum**
Camilla Cividini^{1,2}, Silvia Basaia¹, Edoardo Gioele Spinelli^{1,2}, Veronica Castelnovo^{1,2}, Elisa Canu¹, Nilo Riva³, Giuseppe Magnani⁴, Francesca Caso⁴, Massimo Filippi^{1,2,3,4,5}, Federica Agosta^{1,2,4}
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- 2283 Age-related network connectivity pattern changes are associated with risk for psychosis**
Roberta Passiatore^{1,2}, Antonucci Linda^{1,3}, Thomas DeRamus², Fazio Leonardo¹, Giuseppe Stofa¹, Marina Sangiuliano⁴, Ileana Andriola⁴, Mario Altamura⁵, Alessandro Saponaro⁶, Flora Brudaglio⁷, Angela Carofiglio⁸, Teresa Popolizio⁹, Paolo Taurisano¹, Fabio Sambataro¹⁰, Giuseppe Blasi^{1,4}, Alessandro Bertolino^{1,4}, Vince Calhoun², Giulio Pergola^{1,11}
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- 2284 Magnetic Resonance-guided Focused Ultrasound (MRgFUS) Lesioning of the VIM: A Multimodal MRI Study**
Neeraj Upadhyay¹, Emily Pohl¹, Xenia Kobeleva², Veronika Purrer³, Angelika Maurer¹, Vera Keil⁴, Christine Kindler⁵, Valeri Borger⁶, Claus Pieper¹, Simon Groetz⁷, Lukas Scheef⁸, Jaroslaw Maciarczyk⁶, Hans Schild¹, Hartmut Vatter⁶, Thomas Klockgether³, Alexander Radbruch⁹, Ulrike Attenberger¹, Ullrich Wüllner³, Henning Boecker⁸
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- 2285 Effects of rhythmic nasal epithelium stimulation on functional connectivity and consciousness state**
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- 2287 High amplitude activity in the default networks shifts locus as a function of anesthetic in rats**
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- 2288 Interleaved acquisition of GABA and BOLD fluctuations in a clinical 3T MRI system: a phantom study**
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- 2289 Altered resting state network coherence in remitted MDD**
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- 2290 Brain network changes in post COVID-19 syndrome**
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- 2291 Neuromarkers of attention and working memory distinguish these processes in children**
Omid Kardan¹, Andrew Stier¹, Carlos Cardenas-Iniguez¹, Julia Pruin¹, Yuting Deng¹, Taylor Chamberlain¹, Wesley Meredith², Kathryn Schertz¹, Xihan Zhang¹, Jillian Bowman¹, Tanvi Lakhtakia¹, Lucy Tindel¹, Marc Berman¹, Monica Rosenberg³
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- 2292 Bidirectional associations of physical activity and brain structure in middle-aged and older people**
Amy Hofman¹, Maria Rodriguez-Ayllon¹, Pauline Croll^{1,2}, Alexander Neumann³, Wiro Niessen², Arfan Ikram¹, Trudy Voortman¹, Meike Vernooij^{1,2}, Ryan Muetzel^{1,4}
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- 2293 Diffusion MRI Correlates of MDS-UPDRS Motor Score**
Arun Venkataraman¹, Md Nasir Uddin¹, Taylor Myers¹, Zhengwu Zhang¹, Ruth Schneider¹, Jianhui Zhong¹, Giovanni Schifitto¹
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- 2294 Resample aggregating improves the generalizability of Connectome Predictive Modelling**
David O'Connor¹, Evelyn Lake¹, Dustin Scheinost¹, Todd Constable¹
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- 2295 Connectivity-based parcellation for Vim identification: a methodological perspective**
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- 2296 Resting fMRI Effective Connectivity Using Greedy Adjacencies and Non-Gaussian Orientations (GANGO)**
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- 2297 Effects of prefrontal cortex maturation on verbal memory development**
Clara Ekerdt¹, Nadia Klijn¹, Willeke Menks¹, Guillen Fernandez¹
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- 2298 Functional connectivity and social cognition: Multivariate links across the schizophrenia spectrum**
Lindsay Oliver¹, Colin Hawco², Navona Calarco², Iska Moxon-Emre¹, Thomas Tan¹, James Gold³, George Fousias², Pamela DeRosse⁴, Miklos Argyelan⁴, Robert Buchanan³, Anil Malhotra⁴, Aristotle Voineskos²
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- 2299 Relaxometric Alterations in Subcortical Structures of Patients with Psychotic Spectrum Disorders**
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- 2300 Cerebral network reorganization and consciousness recovery in severe traumatic brain injury**
Chantal Delon-Martin¹, Lydia OUJAMAA², Jean-François PAYEN³, Sophie Achard⁴
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- 2301 Cortical excitability shapes somatosensory perception with spatiotemporally structured dynamics**
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- 2302 Recurrent deep network ensemble for the prediction of general intelligence from RS-fMRI timeseries**
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- 2303 EEG responses to sound omissions are modulated by predictability**
Ruxandra Tivadar¹, Sigurd Alnes¹, Anna Morf¹, Athina Tzovara¹
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- 2304 Confounds python library to mitigate effect of covariates and for [multi-site] data harmonization**
Pradeep Reddy Raamana¹, Future Contributors²
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- 2305 Comparing Predictions of LSTM, GPT-2 and BERT to fMRI Data Obtained During Story Listening**
Alexandre Pasquiou^{1,2}, Yair Lakretz², John Hale³, Bertrand Thirion¹, Christophe Pallier²
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- 2307 Decoding behavioral responses from fMRI without learning behavioral responses from fMRI**
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- 2308 Functional connectivity of memory systems in offspring of patients with Alzheimer's disease**
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- 2309 Accurate brain-age prediction from clinically relevant structural MRI scans**
David Wood¹, Sina Kafabadi², Ayisha Al Busaidi², Emily Guilhem², Antanas Montvila², Jeremy Lynch³, Matthew Townend⁴, Siddharth Agarwal¹, Gareth J. Barker⁵, Sebastian Ourselin¹, Thomas Booth¹, James Cole⁶
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- 2310 Waveform motifs in neuronal oscillations**
Andrew Quinn¹, Vitor Lopes-dos-Santos¹, Norden Huang², Wei-Kuang Liang³, Jia-Rong Yeh⁴, Chi-Hung Juan³, Anna Nobre¹, David Dupret¹, Mark Woolrich¹
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2311 Functional architecture of the aging brain

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2312 Diffusion MRI Subsampling: Optimizing b-vector selection

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2313 RTMS Reveals Significant Pain Relief in Nonspecific CLBP Patients by rs-fMRI Functional Connectivity

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2314 The dimensionality of representational space calibrates to abstract reasoning complexity

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2315 Adiponectin-Related Functional Connectivity as a Predictor for Prognosis of Bipolar Disorder

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2316 Functional connectivity in neurodegenerative diseases different ipsi/contralateral spatial decay

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2317 Mapping Cortical Networks in Parkinson Disease using High-Density Diffuse Optical Tomography

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2318 Comparing ballistocardiogram (BCG) artifact reduction methods in concurrent EEG-fMRI

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2319 Fantastic measures and how to repeat them:

Tractography-based repeatability of microstructural MRI

Dmitri Shastin¹, Malwina Molendowska¹, Benjamin Newman², Alexander Leemans³, Anouk Verschuur⁴, Veronica Dell-Acqua¹, Anna Schroder⁵, Kurt Schilling⁶, Sila Genc¹, Pedro Luque Laguna¹, Elena Kleban¹, Derek Jones¹, Chantal Tax¹, Kristin Koller¹

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2320 Structural neuroadaptive changes in alcohol use disorder

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2321 Stability and Reproducibility of CCA and PLS models on brain-psychopathology relationships

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- 2322 Polyphenotypic “Sex Scores” in the UK Biobank: Molecular Architecture and Intrasex Variability**
Daniel Vosberg¹, Nadine Parker², Jean Shin¹, Andrei Mouraviev¹, Zdenka Pausova¹, Tomáš Paus²
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- 2323 Neurophysiological fingerprints of human perceptual decision making: a MEG study**
Antea D’Andrea^{1,2}, Alessio Basti^{1,2}, Annalisa Tosoni^{1,2}, Federico Chella^{1,2}, Vittorio Pizzella^{1,2}, Laura Marzetti^{1,2}
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- 2324 Estimating the true discovery proportion of clusters based on cluster extent thresholding in fMRI**
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- 2325 Fast and accurate EPI spatial normalization using convolutional neural network**
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- 2326 Comparative network analysis of resting-state fMRI and EEG dynamic functional connectomes**
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- 2328 Three dorsolateral prefrontal cortex loci predict cocaine relapse with their functional connectivity**
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- 2329 Is Parental History of Depression Related to Child Brain Structure?: Results From the ABCD Study**
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- 2330 Empirical Mode Decomposition tools in Python**
Andrew Quinn¹, Vitor Lopes-dos-Santos¹, David Dupret¹, Anna Nobre¹, Mark Woolrich¹
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- 2331 Resting state functional connectivity networks predict motor behaviors in Parkinson’s Disease**
Anjanibhargavi Ragothaman¹, Martina Mancini¹, John Nutt¹, Damien Fair², Fay Horak¹, Oscar Miranda-Dominguez²
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- 2332 Effects of motion on quasi-periodic patterns in the brains of anesthetized rats**
Eric Maltbie¹, Wen-Ju Pan², Vahid Khalilzad Sharghi², Shella Keilholz³
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- 2333 Amplitude of low-frequency fluctuations is associated with Negative Symptom Domains in Schizophrenia**
Eun-jin Cheon^{1,2}, Bingchen Gao², Bhim Adhikari³, Jesse Edmund⁴, Aysenil Belger⁵, Steven Potkin^{6,7}, Juan Bustillo⁸, Daniel Mathalon⁹, Judith Ford⁹, Kelvin Lim^{10,11}, Bryon Mueller¹⁰, Adrian Preda⁷, Gregory Strauss¹², Paul Thompson¹³, Neda Jahanshad¹³, Peter Kochunov¹⁴, Vince Calhoun¹⁵, Jessica A. Turner¹⁶, Theo van Erp^{2,17}
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- 2334 Temporopolar Cortex Anomalies in Temporal Lobe Epilepsy Detected with Diffusion Kurtosis Imaging**
Loxlan Kasa¹, Terry Peters¹, Seyed Mirsattari¹, Ali Khan¹, Roy Haast¹
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- 2335 Brief monocular deprivation elicits distinct effects on visual and audio-visual neural oscillations**
Alessandra Federici¹, Giulio Bernardi¹, Irene Senna², Marta Fantoni¹, Marc Ernst², Emiliano Ricciardi¹, Davide Bottari¹
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- 2336 Executive function performance and brain nodal properties in Parkinson’s Disease**
Giacomo Tomezzoli^{1,2}, Lisa Novello², Francesca Saviola², Stefano Tambalo², Beatrice Luciani², Enrica Pierotti², Céline Charroud², Alessandro Gober², Francesca Giacomoni², Pamela Narduzzi², Claudia Meli², Marika Falla², Alessandra Dodich², Luca Turella², Costanza Papagno², Jorge Jovicich²
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- 2337 White matter and links to language abilities in children and youth with prenatal alcohol exposure**
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- 2338 Characterizing effects of age, sex and psychosis symptoms on thalamocortical functional connectivity**
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- 2339 Visualizing Neuroimaging Data Located at Different Sites with Privacy Guarantees**
 Debrata Kumar Saha¹, Vince Calhoun², Yuhui Du³, Zening Fu³, Sandeep R. Panta⁴, Soo Min Kwon⁵, Anand D. Sarwate⁵, Sergey Plis⁶
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- 2340 Cortico-subthalamic interactions during implicit and explicit emotional processing**
 Florencia Sanmartino^{1,2}, Raul Rashid-Lopez², Fernando Lopez-Sosa², Alvaro Cruz-Gomez², Elena Lozano-Soto^{1,2}, Francisco Marin-Laut³, Jesus Rique⁴, Raul Espinosa-Rosso⁵, Wolf-Julian Neumann⁶, Javier Gonzalez-Rosa^{1,2}
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- 2341 Preserved dynamic architecture contributes to the brain's ability to recover consciousness**
 Charlotte Maschke¹, Catherine Duclos², George Mashour³, Adrian Owen⁴, Stefanie Blain-Moraes²
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- 2342 Viewpoint Equivariance: Are 3D CapsNets Any Good for Hippocampal Segmentation?**
 Clement POIRET¹, Antoine BOUYEURE¹, Sandesh PATIL¹, Edouard Duchesnay², Antoine Grigis², Frederic LEMAITRE³, Marion NOULHIANE¹
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- 2344 Characterization of the Haemodynamic Response after a Buprenorphine Challenge Study in Human**
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- 2347 Effects of prenatal opioids exposure and treatment on newborn brain functional connectivity**
 Janelle Liu¹, Karen Grewen², Wei Gao¹
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- 2348 Graph properties of functional brain networks and associations with cognition in periadolescence**
 Connor Phipps¹, Jennifer Sexton¹, Lillian Behm¹, Thomas DeCesare¹, Abi Heller¹, Arthur Maerlender², Vaishali Phatak¹, Justin Cramer¹, James Blair³, Daniel Murman¹, David Warren¹
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- 2349 Functional mapping pitfalls and limitations on the ventral temporal cortex**
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- 2350 An EEG Study on Slow Wave Features Related to Sleep-Dependent Consolidation of Procedural Memory**
 Khaoula Louati¹, Nicolas van den Berg¹, Aaron Gibbings¹, Laura Ray¹, Stuart Fogel¹
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- 2351 Interpreting brain dynamics via deep learning**
 Md Mahfuzur Rahman¹, Usman Mahmood¹, Alex Fedorov², Noah Lewis², Zening Fu¹, Vince Calhoun³, Sergey Plis¹
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- 2352 A computational model for brain lactate exchanges in neuro-glio-vascular coupling**
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- 2354 Sex Differences in Early Childhood Development Based on Resting-State Functional Connectivity**
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- 2355 Multivariate Analysis of Amygdala Connected Regions in Autism Spectrum Disorder**
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- 2356 Neural Subgroups Based on Directed Functional Networks Reflect Psychopathology Risk and Resilience**
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- 2357 Surgical menopause affects resting-state functional connectivity and network segregation in midlife**
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- 2359 Inspector Gadget: A Tool For Extracting Gene Subunit Distribution in MRS Regions**
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- 2360 Distributed dysconnectivity between default network and attention networks in youth with ADHD**
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- 2361 Energy metabolism of the brain during exercise: Effects of exercise on lactate and glucose metabolism**
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- 2362 Cognitive impairment in multiple sclerosis is related to reduced functional network state switching**
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- 2363 Association of Amygdala Volume and Development with Anxiety in Autism Spectrum Disorder**
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- 2364 Towards a Hierarchical Model of Social Cognition: A Neuroimaging Meta-Analysis and Integrative Review**
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- 2366 Brain Dynamics Moderate Cognitive Flexibility Across the Lifespan**
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- 2367 Differences in thalamus structure and metabolism relate to surgical outcome in trigeminal neuralgia**
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- 2368 Functional and Structural Brain Features of Intact versus Impaired Episodic Memory in Epilepsy**
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- 2369 NeuroCOVID19: Impact of the Virus on the Brain**
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- 2370 Disability in MS is related to altered MEG-based functional network topology and gray matter atrophy**
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- 2371 The ciftiTools package: Reading, analyzing, visualizing and writing CIFTI files in R**
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- 2372 Dynamic functional connectivity profile of the salience network across the lifespan**
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- 2373 NIH Funded NITRC's Triad of Services: Software, Data, Compute**
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- 2374 Using a Graph Convolutional Network to Predict Brain Function from Structure at the Individual Level**
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- 2375 IFOF, not the AF, asymmetry predicts functional lateralization for language**
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- 2376 Behavioral, Anatomical and Genetic Convergence of Affect and Cognition in Superior Frontal Cortex**
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- 2377 Temporal-parietal junction structural connectivity and adolescent prosocial behavior**
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- 2378 Nonparametric causal analysis of brain and cognition, applied to developmental neuroimaging**
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- 2379 Dynamic Co-Activation Patterns in the awake and anesthetized macaque**
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- 2380 Microstructure-mesh projection: An approach for the granular analysis of hippocampal microstructure**
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- 2381 Brain Networks Underlying Working Memory are Linked to Subjective Experience of Chronic Pain**
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- 2382 Network Modeling of Sex Differences in Brain Integrity and Metabolic Health**
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- 2383 The ENIGMA Toolbox: cross-disorder and multiscale contextualization of neuroimaging datasets**
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- 2384 Auditory statistics processing revealed by EEG frequency-tagging of synthetic sounds**
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- 2385 Contributions of human amygdala nuclei to resting-state networks**
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- 2386 Salience network leads sequenced brain changes underlying fMRI correlation with EEG and physiology**
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- 2387 Mapping Layer-specific Orientation Pinwheel Pattern in Cat Visual Cortex with Functional CBV Imaging**
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- 2388 Registration of electrophysiological source imaging with the BigBrain using HCP compatible pipelines**
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- 2389 Interoceptive cardiac activity is attributed to oneself independently of feedback synchronicity**
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- 2390 Cognitive insights from evolutionarily new brain structures in prefrontal cortex**
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- 2392 Functional Connectivity Analyses in Childhood-Onset OCD Yield Negative Results**
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- 2393 Limbic system functional connectivity predicts response to surgery for trigeminal neuralgia**
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- 2395 High-field brain imaging of amygdala subregions in adolescents with major depressive disorder**
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- 2397 Dynamical Patterns and Individual Variability of Structure-Function Coupling Across the Neocortex**
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- 2398 Local neurodegeneration and global connectivity adaptation across the FTD-AD spectrum**
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- 2399 Steady-State EEG Components Elucidate Unimodal and Multisensory Aspects of Letter-Sound Processing**
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- 2400 Characteristics of Beta Oscillations in The Motor Cortex During Acquisition Phase of Motor Learning**
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- 2401 Some Simple Memory Tests Are Unaffected by Age in Healthy Older Adults**
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- 2402 Repertoire of dynamic states in neonatal functional brain networks**
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- 2403 BATS: the Boston ASL Template and Simulator – development and initial evaluation**
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- 2404 Transfer learning of fMRI dynamics: learning representation of multiple disorders**
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- 2405 Putting pipeline implementation-related variation into perspective for functional connectomics**
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- 2408 Quasi-periodic patterns and BOLD response entrained by visual stimulation in the human brain**
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- 2409 Functional connectivity correlates of autobiographical memory during childhood**
 Antoine Bouyeure¹, Clément Poiret¹, Clara Champy¹, Sandesh Patil¹, Marion Noulhiane¹
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- 2410 Improving functional MRI using advanced multiband multi-echo EPI**
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- 2411 A comparison of VBM pipelines**
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- 2412 Multiple ways to process multi-echo fMRI data with AFNI**
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- 2413 MRS Study of Sertraline Administration in Comparison with Cognitive Behavior Therapy in GAD Patients**
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- 2414 A Predictive Model of Socio-Affective Traits from Neural Synchrony During Movie Viewing**
 Josefa Equita¹, Emily Finn¹
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- 2416 Baseline posterior cingulate cortical responses to pain catastrophizing predict cognitive behavioral**
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- 2417 Sulcal Depth in Lateral Prefrontal Cortex Predicts Working Memory in Childhood**
 Jewelia Yao¹, Willa Voorhies¹, Jacob Miller¹, Silvia Bunge¹, Kevin Weiner¹
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- 2418 Vascular risk factors in early adulthood associated with subsequent brain structure & cognition**
 Rowina Hussainali¹, Sander Lamballais¹, Sarah Schalekamp-Timmermans¹, Jeanine Roeters van Lennep¹, Annemarie Luik¹, Eric Steegers¹, Mohammad Ikram¹
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- 2419 Verifying Ontological Knowledge Through Meta-Analysis: Study Cases of Pain and Consciousness**
 Gaston Zanitti¹, Valentin Iovene¹, Demian Wassermann¹
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- 2420 Traveling waves within beta bursts in the human motor cortex**
 Catharina Zich¹, Andrew Quinn², Gareth Barnes³, James Bonaiuto⁴, Nick Ward⁵, Sven Bestmann⁶
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- 2421 Investigating sound content in the early visual cortex of aphantasia participants**
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- 2422 Self- and other-regarding reinforcement learning in PTSD with and without comorbid depression**
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- 2423 Resting state motor network connectivity using electroencephalography and calibrated fMRI**
 Wanyong Shin¹, Balu Krishnan¹, Ajay Nemani¹, Mark Lowe¹
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- 2424 White Matter Signal Abnormalities in Aging And Alzheimer's Disease Using An "Agnostic" Parcellation**
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- 2425 Patterns of subject-level variance in structural and functional brain connectivity**
 Mark Nelson¹, Jessica Royer¹, Hyerang Jin¹, Shahin Tavakoli¹, Reinder Vos de Wael¹, Raul Rodríguez-Cruces¹, Ilana Leppert¹, Jennifer Campbell¹, G. Bruce Pike², Mistic Bratislav¹, Boris Bernhardt¹, Christine Tardif¹
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- 2426 Measuring associations between periadolescent hippocampal volume and relational memory**
 Jennifer Sexton¹, Connor Phipps¹, Lillian Behm¹, Thomas DeCesare¹, Abi Heller¹, Arthur Maerlender², Vaishali Phatak¹, Justin Cramer¹, James Blair³, Daniel Murman¹, David Warren¹
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- 2427 BIDS Specification Terms: A Controlled Vocabulary for the Brain Imaging Data Structure**
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- 2428 Altered white matter integrity related to adverse events in childhood and adolescence**
 Andrea Rodriguez¹, Helen Petropoulos², Tony Wilson³, Yu-Ping Wang⁴, Vince Calhoun⁵, Julia Stephen¹
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- 2429 Brain age prediction using Deep Learning on 16,092 Healthy MRIs across Lifespan**
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- 2430 Multimodal evidence that pupillary responses are useful for examining aging in the locus coeruleus**
 Elizabeth Riley¹, Hamid Turker¹, Khena Swallow¹, Adam Anderson¹, Eve De Rosa¹
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- 2432 The Configurable Pipeline for the Analysis of Connectomes (C-PAC) 2020-21: Transitioning Out of Beta**
 Steve Giavasis¹, Jon Clucas¹, Xinhui Li¹, Hecheng Jin¹, Lei Ai¹, Anibal Solon Heinsfeld², Cameron Craddock², Michael Milham¹
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- 2433 Hippocampal connectivity during acute psychosocial stress using interleaved resting state epochs**
 Philipp Sämann¹, Immanuel Elbau², Michael Czisch²
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- 2434 Generation and validation of a structural covariance-driven human grey matter atlas**
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- 2435 Decoupling between global brain signal and cerebrospinal fluid flow is linked to Alzheimer's disease**
 Feng Han¹, Jing Chen¹, Aaron Belkin-Rosen¹, Yameng Gu¹, Liying Luo¹, Orfeu Buxton¹, Xiao Liu¹
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- 2436 Accurate Prediction of Fetal Brain Age using Multi-View Slices from Structural MRI**
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- 2437 Intra-individual structural covariance networks in Anorexia Nervosa: a longitudinal investigation**
 Francesco Alberti¹, Enrico Collantoni¹, Valentina Meregalli¹, Elena Tenconi¹, Paolo Meneguzzo¹, Beate Herpertz-Dahlmann², Jochen Seitz², Angela Favaro¹
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- 2438 Memory-related fMRI activations and deactivations as a potential biomarker for neurocognitive aging**
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- 2439 Investigating grey matter perfusion in relation to damage and disability in multiple sclerosis**
 Anna Digiovanni^{1,2}, Daniele Mascali¹, Antonio Chiarelli¹, Emma Biondetti¹, Ilona Lipp^{3,4}, Valeria Pozzilli², Valentina Tomassini^{1,2,4}, Richard Wise^{1,4}
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- 2440 Federating the future of neuroimaging via secure and privacy-preserving analysis in COINSTAC**
 Kelly Rootes-Murdy¹, Harshvardhan Gazula², Anand Sarwate², Sergey Plis¹, Jessica A. Turner³, Vince Calhoun⁴
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- 2441 Unfolding age-related measures of distinct hippocampal surface area and thickness**
 Roy Haast¹, Jordan DeKraaker¹, Bradley Karat¹, Mohamed Yousif¹, Ali Khan¹
¹Western University, London, Ontario
- 2442 Recent Onset Depression and Recent Onset Psychosis: a Semi-Supervised Machine Learning Approach**
 Paris Alexandros Lalouis¹, Stephen Wood², Renate Reniers¹, Lianne Schmaal³, Dominic Dwyer⁴, Raimo Salokangas⁵, Christos Pantelis⁶, Eva Meisenzahl⁷, Paolo Brambilla⁸, Stefan Borgwardt⁹, Rebekka Lencer⁹, Nikolaos Koutsouleris¹⁰, Rachel Upthegrove¹
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- 2443 Spontaneous global brain events marked by sequenced cascades of spiking neurons**
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- 2444 Characterization of an Orthography Effect: Lesion Symptom Mapping in Persons with Aphasia**
 Joseph Posner¹, Andrew DeMarco¹, Mackenzie Fama², Candace van der Stelt¹, Elizabeth Lacey¹, Sarah Snider¹, Peter Turkeltaub¹, Rhonda Friedman¹
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- 2445 Resting-state individual variability in autism: insights from a pilot clinical rTMS trial**
 Iska Moxon-Emre¹, Zafiris Daskalakis¹, Daniel Blumberger¹, Paul Croarkin², Vinh Tan¹, Colin Hawco¹, Erin Dickie¹, Lindsay Oliver¹, Rachael Lyon¹, Meng-Chuan Lai¹, Pushpal Desarkar¹, Peter Szatmari¹, Stephanie Ameis¹
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- 2446 Characterizing the functional connectome heterogeneity in autism**
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- 2447 Transfer-learning U-Net Brain Extraction Tool (DeepBet) on Non-human Primates**
 Xindi Wang¹, Xinhui Li², Jae Wook Cho², Brian Russ³, Nanditha Rajamani², Alisa Omelchenko², Lei Ai², Annachiara Korchmaros², Pamela Garcia-Saldivar⁴, Zheng Wang⁵, Ned Kalin⁶, Charles Schroeder⁷, Cameron Craddock⁸, Andrew Fox⁹, Alan Evans¹⁰, Adam Messinger¹¹, Michael Milham², Ting Xu²
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- 2448 Dynamic inter-system communication in temporal lobe epilepsy during complex language processing**
 Shilpi Modi¹, Xiaosong He², Kapil Chaudhary¹, Walter Hinds¹, Ashithkumar Beloor-Suresh¹, Michael Sperling¹, Joseph Tracy¹
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- 2449 Deep attention model for local detection of artefacts on brain structural MRI scans**
 Melanie Garcia¹, Clare Kelly²
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- 2450 A Touch of Fear & a Shade of Anger: EmoDet, a Paradigm to Assess Emotional Ambiguity in the Brain**
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- 2451 Differences in Quasi-Periodic Patterns in Resting State fMRI in Alzheimer's Disease**
Harrison Watters¹, Eric Maltbie¹, Shella Keilholz²
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- 2452 NiBabies: A robust preprocessing workflow tailored for neonate and infant MRI**
Mathias Goncalves¹, Christopher Markiewicz¹, Martin Styner², Lucille Moore³, Kathy Snider³, Eric Earl³, Christopher Smyser⁴, Lilla Zollei⁵, Russell Poldrack¹, Oscar Esteban⁶, Eric Feczko⁷, Damien Fair⁷
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- 2453 Real-time motion monitoring using FIRMM reduces infant head motion during fMRI scanning**
Carolina Badke D'Andrea¹, Jeanette Kenley¹, Eric Earl², Amy Mirro¹, Ryland Miller¹, Damien Fair³, Nico Dosenbach¹, Cynthia Rogers¹, Christopher Smyser¹, Deanna Greene⁴
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- 2454 Atypical Organization of Motor Cortex in Ipsilesional Hemisphere Following Poststroke Motor Recovery**
Layla Gould¹, Shaylyn Kress¹, Josh Neudorf¹, Katherine Gibb¹, Amit Persad¹, Kotoo Meguro¹, Jonathan Norton¹, Ron Borowsky¹
¹University of Saskatchewan, Saskatoon, Saskatchewan
- 2455 Altered inter-regional similarity in BOLD variability traces functional integration in aging**
Giulia Baracchini¹, Laetitia Mwilambwe-Tshilobo¹, Roni Setton¹, Amber Lockrow¹, Gary Turner², Nathan Spreng¹
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- 2456 Do we care about FreeSurfer version and do we really need T2w images?**
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- 2457 Effects of Anesthesia on Spatial Global Signal Distribution in Rat rs-fMRI**
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¹Emory University/Georgia Institute of Technology, Atlanta, GA, ²Emory University, Atlanta, GA, ³Georgia Tech, Atlanta, GA
- 2460 Advanced Diffusion-Weighted MRI Sensitive Detects Sex and Age Effects in the Corpus Callosum**
Katherine Lawrence¹, Leila Nabulsi¹, Vigneshwaran Santhalingam¹, Zvart Abaryan², Julio Villalon-Reina¹, Talia Nir³, Iyad Ba Gari¹, Alyssa Zhu¹, Elizabeth Haddad¹, Alexandra Muir¹, Emily Laltoo¹, Neda Jahanshad⁴, Paul Thompson⁵
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- 2461 Regional Amyloid and Tau PET Associations with Cortical Diffusion MRI Microstructural Measures**
Talia Nir¹, Julio Villalon-Reina¹, Elizabeth Haddad¹, Hong Zheng¹, Sophia Thomopoulos¹, Piyush Maiti¹, Alyssa Zhu¹, Paul Thompson¹, Neda Jahanshad¹
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- 2462 Trajectories of Brain Structure and Function in Subjective Cognitive Decline and Healthy Aging**
Raymond Viviano¹, Jessica Damoiseaux¹
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- 2463 Topographical representation of sound frequency and amplitude modulation rate in the auditory cortex**
Shahin Safazadeh¹, Marc Thioux², Gijs Hoskam¹, Remco Renken¹, Pim van Dijk²
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- 2464 The neural dynamics of affective valence processing in a full-length feature film**
Clare Grall¹, Emily Finn²
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- 2465 Measuring associations between periadolescent memory ability and hippocampal functional connectivity**
Lillian Behm¹, Connor Phipps¹, Jennifer Sexton¹, Thomas DeCesare¹, Abi Heller¹, Arthur Maerlender², Vaishali Phatak¹, Justin Cramer¹, James Blair³, Daniel Murman¹, David Warren¹
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- 2466 Neural Sources of Visual Word Form Processing Revealed by Steady-State Visual Evoked Potentials**
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- 2467 Reliability of Graph Measures Derived from Resting-State MEG in the Sensor and Source Spaces**
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- 2468 Imagination and Memory: How the Brain Monitors Reality**
Thomas Pietruszewski¹, Heather Kleider-Offutt¹, Jessica A. Turner²
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- 2469 Variability in the genetic bases of white matter microstructure and cell-type associations in aging**
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- 2470 The neural network supporting natural and socially meaningful voice-identity processing**
Claudia Roswandowitz¹, Thayabaran Kathiresan², Volker Dellwo³, Sascha Frühholz⁴
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- 2471 Flaws in data binning for population receptive field analyses**
Susanne Stoll¹, Elisa Infanti¹, Benjamin de Haas², D. Samuel Schwarzkopf^{1,3}
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- 2472 Pain-associated neurodevelopment and structure-function relationships in premature and term infants**
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- 2476 White-matter integrity and working memory: Relationships to aging and dopamine-related genes**
XIN LI¹, Alireza Salami¹, Lars Bäckman¹, Jonas Persson¹
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- 2477 Nonlinear normative regression models reveal cortical growth deviations led by preterm birth**
Mitchell Lee¹, Mengting Liu², Anthony James Barkovich³, Duan Xu⁴, Hosung Kim⁵
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- 2478 Image Synthesis in Multi-Contrast MRI using Wasserstein Cycle-Consistent Adversarial Network**
Ming Chen^{1,2}, Hailong Li^{1,3}, Jinghua Wang⁴, Jonathan Dillman^{1,3,5}, Andrew Trout^{3,5}, Jean Tkach^{3,5}, Stephanie Merhar^{6,7}, Nehal Parikh^{6,7}, Lili He^{1,3,5}
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- 2479 A study of fetal resting-state networks in the developmental Human Connectome Project (dHCP)**
Vyacheslav Karolis^{1,2}, Sean Fitzgibbon¹, Lucilio Cordero-Grande^{3,4}, Maximilian Pietsch⁵, Anthony Price⁴, Emer Hughes⁴, Seyedeh-Rezvan Farahibozorg¹, Ahmed Fetit⁶, Jonathan O'Muircheartaigh⁵, Tomoki Arichi², Daniel Rueckert⁶, Joseph V. Hajnal⁴, David Edwards², Stephen Smith¹, Eugene Duff¹
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- 2480 Multivariate Analysis of Cortical Morphometry across Human Brain Development**
Hadis Kalantar Hormozi^{1,2}, Gabriel Devenyi^{1,3}, Raihaan Patel^{1,4}, Armin Raznahan⁵, Mallar Chakravarty^{1,2,3,4}
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- 2481 Abnormal cortical development in a cardiac-specific mouse model of hypoplastic left heart syndrome**
Anum Rahman^{1,2}, Yohan Yee^{1,2}, Taylor DeYoung¹, Ethan Mah¹, Lisa Gazdzinski¹, John Sled^{1,2}
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- 2482 PhysioPy/phys2bids v2.3.3: BIDS formatting of physiological recordings**
 François Lespinasse¹, Stefano Moia², Katherine Bottenhorn³, Daniel Alcalá⁴, Apoorva Ayyagari⁵, Molly Bright⁶, César Caballero-Gaudes², Inés Chavarria⁴, Vicente Ferrer⁴, Soichi Hayashi⁷, Vittorio Iacovella⁸, Ross Markello⁹, Robert Oostenveld¹⁰, Taylor Salo³, Rachael Stickland⁶, Eneko Uruñuela², Merel Van Der Thiel¹¹, Kristina Zvolanek⁶, The physiopy contributors phys2bids¹²
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- 2483 Resting-state fMRI Connectivity of Emotion Regulation Circuits in Schizophrenia**
 Daniel Brown¹
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- 2484 Test-retest reliability of cloud-based neuroimaging processing via brainlife.io**
 Brad Caron¹, Soichi Hayashi¹, Brent McPherson¹, Daniel Bullock¹, Josh Faskowitz¹, Taylor Zuidema¹, Ricardo Stuck¹, Franco Pestilli²
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- 2485 Employing simultaneous (EEG-)PET-MRI to map arousal-induced hemodynamic and metabolic dynamics**
 Jingyuan Chen^{1,2}, Ciprian Catana^{1,2}, Jonathan Polimeni^{1,2}, Nina Fultz³, Kyle Droppa¹, Hsiao-Ying Wey^{1,2}, Julie Price^{1,2}, Bruce Rosen^{1,2}, Laura Lewis³, Christin Sander^{1,2}
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- 2486 Adolescent longitudinal development of cortical thickness, surface area, volume, and gyrification**
 Lea Backhausen^{1,2}, Hervé LeMaitre³, Jonas Granzow¹, Juliane Fröhner², Jean-Luc Martinot⁴, Michael N. Smolka², Nora Vetter^{1,2}
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- 2488 Associations Between Cognitive Ability and Neural Flexibility**
 Weiyan Yin¹, Tengfei Li¹, Ziliang Zhu¹, Zhen Zhou¹, Gang Li¹, Brittany Howell², Martin Styner¹, Essa Yacoub³, Heather Hazlett¹, John Gilmore¹, Joseph Piven¹, Keith Smith¹, Kamil Ugurbil³, Jed Elison³, Li Wang¹, Han Zhang¹, Weili Lin¹
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- 2489 Longitudinal Seed-Based Connectivity Analysis in Patients with Ischemic and Hemorrhagic Stroke**
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- 2490 Graph Theory Analysis of Structural Connectivity Reveals Altered Network Topology in HIV Infection**
 Alan Finkelstein¹, Kyle Murray¹, Jianhui Zhong¹, Giovanni Schifitto¹
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- 2491 Online Optimization of Closed-Loop tACS-fMRI Stimulation to Enhance Fronto-parietal Connectivity**
 Beni Mulyana^{1,2}, Aki Tsuchiyagaito¹, Jared Smith¹, Masaya Misaki¹, Samuel Cheng², Martin Paulus¹, Hamed Ekhtiari¹, Jerzy Bodurka^{1,3}
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- 2492 Shinobi in the scanner: Development and validation of an fMRI/MEG controller and gaming platform**
 Andre Cyr¹, Yann Harel², Basile Pinsard¹, Paul-Henri Mignot¹, Julie Boyle¹, Maximilien Le Clei², Karim Jerbi², Pierre Bellec²
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- 2493 Whole-brain propagating patterns in human resting-state brain activities**
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- 2495 Expanding the Nilearn vision: Machine learning and statistics for fMRI in Python**
 Bertrand Thirion¹, Elizabeth DuPre², Jérôme Dockès², Gaël Varoquaux³, Thomas Bazeille⁴, Taylor Salo⁵, Nicolas Gensollen⁶, Alexandre Gramfort⁷, Julia Huntenburg⁸, Christopher Markiewicz⁹, Kshitij Chawla⁴, Jerome-Alexis Chevalier⁴, Kamalaker Dado¹⁰, Daniel Gomez¹¹, Eric Larson¹², Robert Luke¹³, Ana Luísa Pinho⁷, Sylvain Takerkart¹⁴
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- 2496 Cognition Alterations in Asymptomatic Midlife Individuals at Increased Risk of Dementia**
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- 2498 Hippunfold: BIDS App for hippocampal unfolding, subfield segmentation, and surface-based analysis**
 Jordan DeKraker¹, Roy Haast², Mohamed Yousif¹, Stefan Kohler³, Ali Khan⁴
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- 2499 Decoupling of global brain signal and cerebrospinal fluid flow marks Parkinson's cognitive decline**
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- 2501 Self-supervised multi-modal representation learning: An application to Alzheimer's disease**
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- 2503 Neural-Behavioral Correlates of Patient-Clinician Relationships: a Longitudinal fMRI Hyperscan Study**
Arvina Grahl¹, Alessandra Anzolin¹, Kylie Isenburg¹, Jeungchan Lee¹, Maya Barton-Zuckerman¹, Dan-Mikael Ellingsen², Changjin Jung³, Jessica Gerber¹, John Kelley⁴, Irving Kirsch⁵, Ted Kaptchuk⁵, Vitaly Napadow¹
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- 2504 Designs of resting ASL analyses in pharmacologic studies**
Fanny Munsch¹, Manuel Taso¹, David Alsop¹
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- 2505 Multimodal neural correlates of childhood psychopathology**
Valeria Kebets¹, Jianzhong Chen², B.T. Thomas Yeo², Boris Bernhardt¹
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- 2506 White matter alterations in glaucoma and monocular blindness differ outside the visual system**
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- 2507 Increased brain-heart connectivity during compassion meditation**
Hang Kin Leung¹, Junling GAO², Hin Hung Sik³, Bonnie Wai Yan Wu¹
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- 2508 MIITRA gray matter labels: Development and evaluation**
Mohammad Rakeen Niaz¹, Yingjuan Wu¹, ABDUR RAQUIB RIDWAN¹, Xiaoxiao Qi¹, David Bennett², Konstantinos Arfanakis^{1,2}
¹Illinois Institute of Technology, Chicago, IL, ²Rush University Medical Center, Chicago, IL
- 2509 Optimizing Modulation Frequency for Frequency Domain High-Density Diffuse Optical Tomography**
Weihao Fan¹, Hamid Dehghani², Adam Eggebrecht³
¹Washington University in St. Louis, St. Louis, MO, ²University of Birmingham, Birmingham, Birmingham, ³Washington University School of Medicine, Saint Louis, MO
- 2510 A Comparison of Human and AI Emotion Inference in Naturalistic Social Environments**
Marianne Reddan¹, Desmond Ong², Jamil Zaki¹
¹Stanford University, Stanford, CA, ²National University of Singapore, Singapore, Singapore
- 2511 Ground-truth resting-state fMRI provides data-driven estimation and correction of scanner distortion**
Rajat Kumar¹, Liang Tan², Alan Kriegstein², Andrew Lithen¹, Jonathan Polimeni³, Lillianne Mujica-Parodi^{1,3}, Helmut Strey¹
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- 2512 Getting the Nod: Characterizing pediatric head motion in movie- and resting-state fMRI**
Simon Frew¹, Ahmad Samara², Hallee Shearer², Jeffrey Eilbott³, Tamara Vanderwal²
¹University of Waterloo, Waterloo, Ontario, ²University of British Columbia, Vancouver, British Columbia, ³BC Children's Hospital Research Institute, Vancouver, British Columbia
- 2513 Neural differences in social and figurative language processing on the autism spectrum**
William Graves¹, Hillary Levinson¹, Linsah Coulanges², Shannon Cahalan¹, Daniel Cruz³, Vanessa Bal⁴, Miriam Rosenberg-Lee¹
¹Rutgers University - Newark, Newark, NJ, ²University of Pittsburgh, Pittsburgh, PA, ³Hackensack Meridian Health - Mountainside Medical Center, Montclair, NJ, ⁴Rutgers University - New Brunswick, Piscataway, NJ
- 2514 Snakebids: introducing Snakemake to the neuroimaging community**
Ali Khan¹, Roy Haast¹
¹Western University, London, Ontario
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Alessandra Anzolin¹, Arvina Grahl², Kylie Isenburg³, Jlenia Toppi⁴, Angela Ciaramidaro⁵, Maya Barton-Zuckerman², Meryem Yucel⁶, Dan-Mikael Ellingsen⁷, Ted Kaptchuk⁸, Laura Astolfi⁴, Vitaly Napadow⁹
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- 2516 Network Dynamics during Speech Production**
Kshipra Gurunandan¹, Manuel Carreiras¹, Pedro Paz-Alonso¹
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- 2518 Altered cortical thickness development in 22q11 DS and association with psychotic symptoms**
Joelle Bagautdinova¹, Daniela Zöller², Marie Schaer¹, Maria Carmela Padula¹, Valentina Mancini¹, Maude Schneider¹, Stephan Eliez¹
¹University of Geneva, Geneva, Switzerland, ²University of Tübingen, Tübingen, Germany
- 2519 Neural Correlates of Learning Strategies in Non-generalizable Multi-dimensional Environments**
Sharif Saleki¹, Shiva Farashahi^{2,1}, Alireza Soltani¹
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- 2520 Hippocampus Diffusivity Abnormalities in Classic Trigeminal Neuralgia**
Shaun Hanycz¹, Alborz Noorani², Peter Shih-Ping Hung², Ashley Bo Zhang³, Mojgan Hodaie³
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- 2521 Cardiac Gated Multiecho fMRI Analysis Methods Comparison**
Tara Maronesy¹, Christine Sze Wan Law², Sean Mackey², Gary Glover²
¹University of California, San Diego, La Jolla, CA, ²Stanford University, Stanford, CA
- 2522 Finger-tapping task fMRI reliability in a healthy population**
Florian Wüthrich¹, Stéphanie Lefebvre¹, Niluja Nadesalingam¹, Sebastian Walther¹
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- 2523 Empathy Relies on Fine-Grained Internal Simulation**
Leo Christov-Moore¹, Jonas Kaplan¹
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- 2524 Neural responses of illusory surface brightness perception at 7T fMRI**
Yawen Wang¹, Sriranga Kashyap¹, Minye Zhan², Mark Roberts¹, Peter De Weerd¹
¹Maastricht University, Maastricht, Limburg, ²NeuroSpin, INSERM-CEA, Gif sur Yvette, Ile de France
- 2525 A single, clinically relevant dose of baclofen significantly impairs motor sequence learning**
Ioana Grigoras¹, Elias Geist², Sebastian Green¹, William Clarke¹, Uzay Emir³, Caroline Nettekoven¹, Ainslie Johnstone¹, Charlotte Stagg¹
¹University of Oxford, Oxford, UK, ²University of Columbia, USA, ³University of Purdue, West Lafayette, IN
- 2526 Multi-Site MRI Harmonization using Unified Generative Adversarial Networks**
Mengting Liu¹, Piyush Maiti¹, Sophia Thomopoulos¹, Nadia Kadakova¹, Hosung Kim¹, Neda Jahanshad¹
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- 2527 A Validation Study of the Bayesian GLM using the Human Connectome Project Data**
Daniel Spencer¹, Amanda Mejia¹
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- 2528 Functional reconfigurations of brain network hubs across arousal levels**
Kangjoo Lee¹, Corey Horien², Bronwen Garand-Sheridan³, Fuyuze Tokoglu¹, David O'Conner⁴, Evelyn Lake¹, Dustin Scheinost^{1,5}, Ian Quinn³, R. Todd Constable^{1,4,6}
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- 2529 Probabilistic Logic for Coordinate-Based Meta-Analysis of Functional Segregation in the Brain**
Majd Abdallah¹, Valentin Iovene², Demian Wassermann²
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- 2530 Micapipe: a BIDS compatible processing pipeline for multiscale imaging and connectome analysis**
Raúl Rodríguez-Cruces¹, Jessica Royer¹, Peer Herholz², Sara Larivière¹, Reinder Vos de Wael¹, Casey Paquola¹, Oualid Benkarim¹, Bo-yong Park¹, Janie Degré-Pelletier³, Luis Concha⁴, Boris Bernhardt¹
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- 2531 White matter and cerebrospinal fluid show correlates of naturalistic emotions during fMRI**
Benjamin Gold¹, Catie Chang²
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- 2532 Classification of HIV Associated Neurocognitive Disorders Using Fiber Specific White Matter Changes**
Alan Finkelstein¹, Abrar Faiyaz¹, Md Nasir Uddin¹, Jianhui Zhong¹, Giovanni Schifitto¹
¹University of Rochester, Rochester, NY
- 2533 Structure-function network couplings of ADHD inattentive type and combined type**
Dongha Lee¹, Hyunjoo Song², Chongwon Pae³, Saebyul Lee³, Tak Youn⁴, Hae-Jeong Park³
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2536 Evolvement of Infant Brain State and Its Association with Cognition

Weixiong Jiang¹, Zhen Zhou¹, Ziliang Zhu², Weiyan Yin¹, Gang Li^{1,3}, Brittany Howell⁴, Martin Styner⁵, Essa Yacoub⁶, Heather Hazlett⁵, John Gilmore⁵, Joseph Piven⁵, Keith Smith³, Kamil Ugurbil⁶, Jed Elison⁷, Li Wang^{1,3}, Han Zhang¹, Weili Lin^{1,3}

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2537 Adolescent Brain Cognitive Development (ABCD) Community MRI Collection and Utilities

Eric Feczko¹, Greg Conan¹, Scott Marek², Brenden Tervo-Clemmens³, Michaela Cordova⁴, Olivia Doyle⁴, Eric Earl⁴, Anders Perrone⁴, Gareth Harman⁵, Dakota Kilamovich⁵, Robert Hermsillo¹, Oscar Miranda-Dominguez¹, Anthony Juliano⁶, Kathy Snider⁷, Lucille Moore⁸, Alice Graham⁸, Finnegan Calabro⁹, Monica Rosenberg¹⁰, Kristina Rapuano¹¹, BJ Casey¹¹, Richard Watts¹¹, Wesley Thompson¹², Thomas Nichols¹³, Elizabeth Hoffman¹⁴, Beatriz Luna⁹, Hugh Garavan¹⁵, Sarah Feldstein-Ewing¹⁶, Bonnie Nagel⁵, Nico Dosenbach², Damien Fair¹

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2538 Dynamic brain organization underlying temporal summation of pain in fibromyalgia

Joshua Cheng¹, Alessandra Anzolin², Michael Berry², Hamed Honari³, Myrella Paschali⁴, Asimina Lazaridou⁴, Jeungchan Lee², Arvina Grahl², Martin Lindquist⁵, Robert Edwards⁶, Vitaly Napadow²

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2539 Neural correlates of polygenic risk for cannabis use and cannabis use disorder

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2540 Neuroinflammatory and functional connectivity signatures in chronic low back pain subtypes

Zeynab Alshelhi¹, Ludovica Brusaferrri¹, Atreyi Saha¹, Yi Zhang², Erin Morrissey¹, Paulina Knight¹, Minhae Kim¹, Daniel Albrecht¹, Angel Torrado-Carvajal¹, Michael Placzek¹, Courtney Bergan¹, Oluwaseun Akeju², Robert Edwards³, Marco Loggia¹, Vitaly Napadow⁴

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2541 Resting-state fMRI and machine learning algorithms on the prediction of preclinical dementia

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2542 Denoising of Blood Delay Maps by Random Matrix Theory

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2543 Mapping the Magnitude of Reward Prediction Errors in a Large Sample of Young Children

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2545 Effects of autonomous sensory meridian response on the fMRI functional connectivity

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2546 Resting State fMRI Speech Network Connectivity in Children with and without Listening Difficulties

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- 2547 Signatures of criticality in simple models of neural timeseries**
Aditya Nanda¹, Dario Englot², Graham Johnson¹, Mikail Rubinov¹
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- 2548 Spatially distinct patterns of atrophy associated with parkinsonism and motor function in older age**
Victoria Poole¹, Veronique VanderHorst^{2,3}, Sue Leurgans¹, Konstantinos Arfanakis^{1,4}, David Bennett¹, Aron Buchman¹
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- 2549 Multi-Site Clustering and Nested Feature Extraction for Identifying Autism with rs-fMRI**
Dongren Yao¹, Nan Wang², Lizhuang Ma², Mingxia Liu¹
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- 2550 Neuromod Movie10: Standardized processing of large-scale cardiorespiratory signals in MR environment**
François Lespinasse¹, Pierre Bellec², Pierre Rainville³
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- 2551 Spatiotemporal functional dynamics along the cortical hierarchy in autism**
Kyoungseob Byeon^{1,2}, Shinwon Park², Hyunjin Park^{2,3}, Seok-Jun Hong^{4,5}
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- 2552 The Case for a Decentralized Science: Open Data Sovereignty, Distributed Cloud Resources, and Rigor**
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- 2553 Multivariate Associations between Regional Brain Volumes and Psychopathology Dimensions in Children**
E. Leighton Durham¹, Gabrielle Reimann¹, Hee Jung Jeong¹, Carlos Cardenas-Iniguez², Randolph Dupont¹, Xiaoyu Dong¹, Tyler Moore³, Marc Berman², Benjamin Lahey², Antonia Kaczkurkin¹
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- 2554 Linear mixed model augmented PCA reveal ongoing thought pattern associated with large scale gradient**
Hao-Ting Wang¹, Bronte Mckeown², Will Strawson¹, Jonathan Smallwood³
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- 2555 QEEG-based Machine Learning Algorithm to Predict Cognitive Impairment After Acute Ischemic Stroke**
Yuseong Hong¹, Ukeob Park¹, Seung Wan Kang¹
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- 2557 A computational approach for optimal control of self-adjustment brain**
Jiyoung Kang^{1,2}, Jinseok Eo^{1,2}, Dong Myeong Lee^{1,2}, Hae-Jeong Park^{3,2}
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- 2558 Gibbs Sampler Based Brain Temporal Motif Detection**
serdar aslan¹, Amy Janes¹, Blaise Frederick¹
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- 2559 Freezing of gait is worsened by heightened sympathetic arousal that increases network integration**
Natasha Taylor¹, Gabriel Wainstein¹, Dione Quek¹, Simon Lewis¹, James Shine¹, Kaylena Ehgoetz Martens²
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- 2561 Performance differences using Synb0-DisCo among different b-values in Diffusion Weighted MRI**
Alejandro Garma Oemichen¹, Kathya Acuña Luna¹
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- 2563 Implementation of a 3D convolutional network to predict impairment of multiple sclerosis subjects**
Emily Olafson¹, Ceren Tozlu², Keith Jamison², Susan Gauthier², Amy Kuceyeski³
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- 2564 Denoising with time-delayed regressors improves test-retest reliability of functional connectome**
Timothy Wanger¹, Amy Janes², Blaise Frederick²
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- 2565 Laminal Representations of Vibrotactile Stimuli with Varying Frequency in S1: a 7T fMRI Study**
Ji-Hyun Kim¹, Sohyun Han², Seulgi Eun², Junsuk Kim³, Sung-Phil Kim⁴
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- 2566 Machine Learning Based Brain Age Prediction Model Employing QEEG Features**
Hyerin Jeong¹, Ukeob Park¹, Seung Wan Kang¹
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- 2567 Brain Age Association versus Prediction: the impact of cortical surface smoothing and parcellation**
Yashar Zeighami¹, Alan Evans²
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- 2568 Microvascular Changes in Psychotic Spectrum Disorders Relate to Cognition, Duration and Metabolites**
Faye McKenna¹, Yu Veronica Sui¹, Pradeep Gupta¹, Hillary Bertisch¹, Donald Goff¹, Mariana Lazar¹
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- 2569 Mapping autistic symptoms in the brain connectome of children with autism and ADHD**
 Patricia Segura¹, José Filho¹, Anish Simhal¹, Jacob Stroud¹, Jessica Cloud², Somer Bishop³, So Hyun Kim⁴, Catherine Lord⁵, Francisco Castellanos^{2,6}, Stanley Colcombe², Michael Milham^{7,2}, Adriana Di Martino¹
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- 2572 Relating BOLD low-frequency physiological patterns to behavioral and cognitive traits**
 Nafis Ahmed¹, Roza Bayrak¹, Mara Mather², Catie Chang¹
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- 2573 Machine learning model to predict prognosis of coma patients in one month with QEEG**
 SeonMyeong Kim¹, Jung Hwa Lee², Seung Wan Kang¹
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- 2574 Ischemic stroke alters temporal dynamics of brain states identified with k-means clustering**
 Georgia Russello¹, Emily Olafson², Keith Jamison³, Hesheng Liu⁴, Danhong Wang⁵, Joel Bruss⁶, Aaron Boes⁶, Amy Kuceyeski⁷
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- 2575 An Open Actigraphy Resource for Associating Brain and Behavior in Pediatric Mental Health**
 yao xiao¹, Alexandre Franco², Lei Ai², Vadim Zipunnikov³, Kathleen Merikangas⁴, Michael Milham²
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- 2576 Hybrid Deep Learning Network Integrating Temporal Coherence and Dynamics for Schizophrenia Diagnosis**
 Min Zhao^{1,2}, Weizheng Yan^{1,2}, Rongtao Xu², Dongmei Zhi^{1,2}, Rongtao Jiang^{1,2}, Yujin Zhang^{1,2}, Tianzi Jiang^{1,2}, Vince Calhoun³, Jing Sui^{1,2,3}
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- 2578 High-density tDCS stimulation targeting the dACC improves ambiguity resolving among schizophrenia**
 Sai Sun¹, Shuo Wang², Rongjun Yu³
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- 2580 Locating seed in PCC for rs-fMRI data analysis by using unsupervised machine learning**
 Mingyi Li¹, Katherine Koenig¹, Jian Lin¹, Mark Lowe¹
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- 2581 Default Mode Network connectivity associated with concussion symptoms & age at injury in adolescents**
 Rachelle Ho¹, Saurabh Shaw², Nicholas Bock¹, Carol DeMatteo¹, Michael Noseworthy¹, Geoffrey Hall¹
¹McMaster University, Hamilton, Ontario, ²University of Western Ontario, London, Ontario
- 2582 Variability in Hippocampal Anteroposterior Gradient Relates to Variability in Symptoms Dimensions**
 Debo Dong^{1,2}, Jianxiao Wu^{1,3}, Simon Eickhoff^{1,3}, Ji Chen^{1,3}, Thomas Nickl-Jockschat⁴, Birgit Derntl⁵, Lydia Kogler⁵, Renaud Jardri⁶, Oliver Gruber⁷, André Aleman⁸, Iris Sommer⁸, B.T. Thomas Yeo^{9,10,11}, Dezhong Yao², Cheng Luo², Pierre Orban^{12,13}, Sarah Genon^{1,3}
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- 2584 Slow oscillations in hippocampal LFP activity in the mouse taupathy model (rTg4510) under anesthesia**
 Kwangyeol Baek¹, Rachel Bennett², Bradley Hyman², Woo Hyun Shim³, Young Kim⁴
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- 2585 Reward Processing in Gender-Diverse Youth: The Role of Minority Stress on the Anticipation of Loss**
 Hannah Loso¹, Aya Cheaito¹, Bader Chaarani², SarahJane Dube¹, Hugh Garavan³, Alexandra Potter¹
¹University of Vermont, Burlington, VT, ²University of Vermont College of Medicine, Burlington, VT, ³Department of Psychiatry, University of Vermont College of Medicine, Burlington, VT
- 2586 Monocular deprivation shifts interocular balance in human lateral geniculate nucleus**
 Yazhu Qian¹, Zhouyuan Sun¹, Chenkan Qian¹, Jiawei Zhou², Peng Zhang¹
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- 2588 Altered White Matter Diffusion Propagator Indices in Carriers of 16p11.2 Copy Number Variants**
Julio Villalon Reina¹, Clara Moreau², Talia Nir³, Neda Jahanshad⁴, Sarah Lippé⁵, Anne Maillard⁶, David Romascano⁶, Bogdan Draganski⁷, Carrie Bearden⁸, Paul Thompson⁹, Sebastien Jacquemont⁵
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- 2589 Intrinsic Brain Network Connectivity Predicts Individual Strategic Social Conformity Tendency**
JuYoung Kim¹, Jinhee Kim¹, Daeun Kim¹, Hackjin Kim¹
¹Korea University, Seoul, Seoul
- 2590 Texture Analysis Reveals Cerebral Degeneration in Amyotrophic Lateral Sclerosis: A Multicentre Study**
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