

# ISMRM

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& IMPROVING LIFE THROUGH MR

International Society for Magnetic Resonance in Medicine • [www.ismrm.org](http://www.ismrm.org)

## ISMRM Workshop on Current Issues in Brain Function

04-06 September 2023  
Cultural Center Altinate San Gaetano  
Padua, Italy

[www.ismrm.org](http://www.ismrm.org)



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## ORGANIZING COMMITTEE

### Co-Chairs:

Kamil Uludag, Ph.D.  
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Wietske van der Zwaag, Ph.D.  
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Yen-Yu Ian Shih, Ph.D.  
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Chapel Hill, NC, USA

## OVERVIEW

This activity is promoted by the Current Issues in Brain Function Study Group. It is also aligned with the feedback from the study group members in questionnaires and breakout sessions during 2022. The last Brain Function study group workshop was held in 2014. The current workshop will include educational talks and two (2) keynote overview presentations while also providing ample time for discussions in the form of poster presentations and breakout sessions.

We will cover fundamental questions concerning functional MRI (fMRI) primarily in humans but also have some space for animal (preclinical) fMRI. The main idea is to relate technical and methodological topics in fMRI, mostly represented at ISMRM, to basic neuroscience, cognitive and computational neuroscience, and clinical applications, mostly represented by other international scientific societies, such as OHBM and SFN. In addition, emphasis will be laid on topics that are emerging as hot topics with growing interest in the ISMRM brain function community, such as AI methods in fMRI, big data, or multi-echo acquisitions.

## TARGET AUDIENCE

Anyone working on brain function, especially functional MRI related approaches, basic scientists using or considering use of fMRI, clinical researchers and neuroscientists with an interest in fMRI, and undergraduate and graduate students using or considering use of fMRI.

## EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be able to:

- Identify and make an informed choice from available contrast mechanisms;
- List available sequences and other modalities; and
- List and compare several post-processing strategies.

**SPEAKER UPLOAD INFORMATION** (Audiovisual Preview)

The audio-visual staff will be located in the back of the meeting room.

Uploading presentations is available on a first-come, first-served basis. Hours are:

- Sunday, 03 September: 15:00-17:00
- Monday, 04 September: 08:00-08:50
- Tuesday, 05 September: 08:00-08:50
- Wednesday, 06 September: 08:00-09:00

Please see program for additional times (breaks & lunch).

**PROGRAM CREDIT DESIGNATION**

The International Society for Magnetic Resonance in Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. This workshop does not offer CME credits.

The International Society for MR Radiographers & Technologists (ISMRT), a section of the ISMRM, is recognized by the American Registry of Radiologic Technologists (ARRT) as a Recognized Continuing Education Evaluation Mechanism (RCEEM). This workshop does not offer CE credits.

**CERTIFICATE OF PARTICIPATION**

To obtain your Certificate of Participation for this workshop, log into the ISMRM membership portal at [www.ismrm.org](http://www.ismrm.org), click the "Session Evaluations for Certificates" menu option, select "Begin Evaluation" next to the appropriate meeting name, and follow the

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**SPEAKERS**

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Nan Li, Ph.D.....	No relationships to disclose
Eli Mattingly, Ph.D. Student.....	No relationships to disclose
Bratislav Mistic, Ph.D.....	No relationships to disclose
Shahin Nasr, Ph.D.....	No relationships to disclose
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**ISMRM STAFF**

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ISMRRM & ISMRT  
ANNUAL MEETING & EXHIBITION

*Singapore*  
04-09 MAY 2024

ABSTRACT DEADLINE: 08 NOVEMBER 2023

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SUNDAY, 03 SEPTEMBER 2023		
15:00-17:00	Pre-Registration & Speaker Upload Available	
Day 1: MONDAY, 04 SEPTEMBER 2023		
08:00	Registration & Speaker Upload Available	
08:50	Welcome	
Plenary Session		
Moderators: Marco Castellaro, Ph.D. & Kamil Uludag, Ph.D.		
09:00	<i>Tools for Multimodal, Multi-Scale Annotation of Brain Networks</i>	Bratislav Mistic, Ph.D. McGill University Montreal, QC, Canada
10:00	Break & Speaker Upload	
Session 1: Origin of BOLD Contrast		
Moderators: Susan T. Francis, Ph.D. & Jacob B. Schulman, B.Sc. (Hons)		
10:30	<i>Effects of Intrinsic Neuromodulation on Functional Brain Imaging</i>	Anna Devor, Ph.D. Boston University Boston, MA, USA
10:50	<i>Vascular &amp; Neuronal Contributions to BOLD fMRI</i>	Natalia Petridou, Ph.D. University Medical Center Utrecht Utrecht, The Netherlands
11:10	<i>Origins of Resting-State BOLD Fluctuations</i>	Shella D. Keilholz, Ph.D. Emory University Atlanta, GA, USA
Session 2: Task-Based fMRI		
Moderators: Michael Asghar, Ph.D. & Jeroen C. S. Siero, Dr. ir.		
Proffered Papers - Oral Session		
11:30	<i>A Multi-Subject Deconvolution Algorithm to Analyze Naturalistic fMRI Data at the Finest Temporal &amp; Spatial Resolution</i>	Eneko Uruñuela, M.Sc. Basque Center on Cognition, Brain & Language San Sebastian, Spain
11:42	<i>The Rat Superior Colliculus: A Key Structure with an Active Role for the Continuity Illusion Effect</i>	Rita Gil, M.Sc. Champalimaud Center for the Unknown Lisbon, Portugal
11:54	<i>Initial Results for the Encoding of Eye Movement Direction Preference in the Cerebellum</i>	Wietske Zuiderbaan, Ph.D. Netherlands Institute for Neuroscience Amsterdam, The Netherlands
12:06	<i>Inferring the Timing of Finger Taps Using Ultrafast fMRI Data at 7T</i>	Samuel Bianchi, M.Sc. Institute for Biomedical Engineering, ETH Zürich & University of Zürich Zürich, Switzerland
12:18	<i>Where Is Pain in the Brain? Neural Correlates of Pain as Orchestration of Allostatic Domain-General Patterns via UHF fMRI at 7T</i>	Henning Reimann, Ph.D. Berlin Ultrahigh Field Facility Berlin, Germany
12:30	Lunch & Speaker Upload Available	

<b>Session 3: Big/Deep Data + Artificial Intelligence in fMRI</b>		
<i>Moderators: Fernanda L. Ribeiro, Ph.D. &amp; Kamil Uludag, Ph.D.</i>		
14:00	<i>The Courtois Neuromod Project: A Deep, Multi-Domain fMRI Dataset to Build Individual Brain Model</i>	Julie Boyle, Ph.D. Functional Neuroimaging Unit Montreal, QC, Canada
14:20	<i>Exploring the Broad Cognitive Landscape with the 7T Naturalistic Perception, Action &amp; Cognition (NatPAC) Dataset</i>	Won Mok Shim, Ph.D. Sungkyunkwan University Suwon, South Korea
14:40	<i>Reconstructing the Mind from fMRI</i>	Yukiyasu Kamitani, Ph.D. Kyoto University Kyoto, Japan
<b>Session 4: Poster Session (Odd Numbers)</b>		
15:00	Poster Session Break & Speaker Upload Available	
<b>Session 5: Layers &amp; Specificity</b>		
<i>Moderators: Mario G. Baez-Yanez, Dr. rer. nat. &amp; Serge Dumoulin, Ph.D.</i>		
Proffered Papers - Oral Session		
16:00	<i>Characterizing the Pial Arterial Vasculature of the Human Brain Using Deep-Learning Segmentation &amp; Graph Analysis</i>	Marshall Xu, M.Sc. University of Queensland Brisbane, QLD, Australia
16:12	<i>Bioengineering a BOLD Replacement for Improved Functional Brain Mapping</i>	Elizabeth Fear, Ph.D. University of Urbino Carlo Bo Urbino, Italy
16:24	<i>Exploring Sub-Millimetre Resolution fMRI: Unveiling New Frontiers at 3T</i>	Sriranga Kashyap, Ph.D. University Health Network Toronto, ON, Canada
16:36	<i>Depth-Dependent Effects of Thermal &amp; Physiological Noise Reduction in BOLD fMRI</i>	Maria Guidi, Ph.D. Enrico Fermi Research Center Rome, Italy
16:48	<i>Layer-Based Connective Field (ICF) Mapping at Ultrahigh Spatiotemporal Resolution fMRI</i>	Joana Carvalho, Ph.D. Champalimaud Foundation Lisbon, Portugal
<b>Session 6: High Resolution/Laminar Columnar Imaging</b>		
<i>Moderators: Markus Barth, Ph.D. &amp; Nikos Privoulos, Ph.D.</i>		
17:00	<i>High Temporal Resolution fMRI</i>	Noam Shemesh, Ph.D. Champalimaud Research Lisbon, Portugal
17:20	<i>Acquisition Techniques for High Spatial Resolution fMRI</i>	Nadine N. Graedel, Ph.D. University College London London, England, UK
17:40	<i>Columnar Organization of Visual System in Humans with Normal &amp; Amblyopic Vision</i>	Shahin Nasr, Ph.D. Harvard Medical School Charlestown, MA, USA
18:00	Adjourn	

**Day 2: TUESDAY, 05 SEPTEMBER 2023**

08:00	Speaker Upload Available	
<b>Session 7: Novel Functional Contrasts, Non-BOLD Methods</b>		
<i>Moderators: Marta Bianciardi, Ph.D. &amp; Marco Castellaro, Ph.D.</i>		
08:50	<i>In-Vivo Direct Imaging of Neuronal Activity at High Temporospatial Resolution</i>	Jang-Yeon Park, Ph.D. Sungkyunkwan University Seoul, South Korea
09:10	<i>Molecular fMRI: Mapping Brain Neurochemical Events In-Vivo</i>	Nan Li, Ph.D. University of Texas Southwestern Dallas, TX, USA
09:30	<i>First Images &amp; Sensitivity Assessment of the Human Scale Magnetic Particle Imaging System for Human Functional Neuroimaging</i>	Eli Mattingly, Ph.D. Student Massachusetts Institute of Technology Cambridge, MA, USA
09:50	<i>Imaging Neuronal Activity Using MR Elastography: From Mice to Humans</i>	Bin Deng, Ph.D. Athinoula A. Martinos Center for Biomedical Imaging Charlestown, MA, USA
<b>Session 8: Poster Session (Even Numbers)</b>		
10:10	Poster Session Break & Speaker Upload Available	
<b>Session 9: Naturalistic Stimuli/Resting State</b>		
<i>Moderators: Maria Guidi, Ph.D. &amp; Rita Schmidt, Ph.D.</i>		
11:00	<i>Participant Introspection to Understand rsfMRI</i>	Javier Gonzalez-Castillo, Ph.D. NIMH, NIH Bethesda, MD, USA
11:20	<i>De-Emphasizing "Rest" in rsfMRI Methodology</i>	César Caballero-Gaudes, Ph.D. Basque Center on Cognition, Brain & Language San Sebastian, Spain
11:40	<i>fMRI of Complex Cognition Using Naturalistic Stimuli</i>	Maria Ida Gobbin, Ph.D. University of Bologna Bologna, Italy
12:00	Lunch & Speaker Upload Available	
<b>Session 10: Acquisitions &amp; Noise Mitigation</b>		
<i>Moderators: Klaus Scheffler, Ph.D.</i>		
Proffered Papers - Oral Session		
13:30	<i>Zero Echo Time MB-SWIFT fMRI Response Function &amp; Correlation with Neuronal Activity During Sensory Stimulation in Rat</i>	Juha Valjakka, M.Sc. University of Eastern Finland Kuopio, Finland
13:42	<i>Steady-State On-the-Ramp Detection of Induction-Decay with Oversampling (SORDINO) fMRI</i>	Martin John MacKinnon, Ph.D. National Institutes of Health Bethesda, MD, USA
13:54	<i>Reducing Uncertainty Between Measurement Process &amp; Result: Design of a Pulse-Sequence Simultaneously Generating &amp; Measuring an Auditory Stimuli</i>	Rita Schmidt, Ph.D. Weizmann Institute of Science Rehovot, Israel



14:06	<i>Effect of NORDIC PCA Denoising for fMRI in Different SNR Regimes</i>	Daniel Marsh, M.Sc. University of Nottingham Nottingham, England, UK
14:18	<i>Improved NORDIC Denoising for Submillimetre BOLD fMRI Using Patch Formation via Non-Local Pixels Similarity - Pixel-Matching (PM) NORDIC</i>	Jeroen Siero, Dr. ir. University Medical Center Utrecht Utrecht, The Netherlands
<b>Session 11: Breakout Sessions</b>		
14:30	<i>Fireside Chat with Italian MRI &amp; fMRI Pioneer Prof. Bruno Maraviglia</i>	Interviewer: Marta Bianciardi, Ph.D.
14:30	<i>Reproducibility &amp; Accessibility for Advanced Neuroimaging: Impact of Open Science/Data Sharing/Cross-Vendor Studies</i>  Moderator: Rita Schmidt, Ph.D.	Panel Discussion: César Caballero Gaudes, Ph.D. Joanes Grandjean, Ph.D. Itamar Kahn, Ph.D. Sheila D. Keiholz, Ph.D.
14:30	Clinical Poster Tour	Patricia Figueiredo, D. Phil. & Wietske van der Zwaag, Ph.D.
15:30	Break & Speaker Upload Available	
<b>Session 12: Multimodal Imaging</b>		
<i>Moderators: Patricia Figueiredo, D. Phil &amp; Vinod Kumar, Ph.D.</i>		
16:00	<i>Simultaneous EEG-fMRI in Humans at 7T: Where We Are &amp; Where We're Going</i>	João Jorge, Ph.D. Swiss Center for Electronics & Microtechnology Bern, Switzerland
16:20	<i>Leveraging Simultaneous Wide-Field Fluorescence Imaging &amp; fMRI to Study Brain Networks in Health &amp; Disease</i>	Evelyn M.R. Lake, Ph.D. Yale University New Haven, CT, USA
16:40	<i>From Neuron to Behavior: Investigating Brain Network Function Using Multimodal Imaging Approach</i>	Nanyin Zhang, Ph.D. Pennsylvania State University University Park, PA, USA
<b>Plenary Session</b>		
Moderator: Wietske van der Zwaag, Ph.D.		
17:00	<i>Measuring Human Brain Function Using Quantum Sensors: Next-Generation Neuroimaging</i>	Lukas Rier, Ph.D. University of Nottingham Nottingham, England, UK
18:00	Adjourn	

**Day 3: WEDNESDAY, 06 SEPTEMBER 2023**

08:00	Speaker Upload Available	
<b>Session 13: Preclinical fMRI</b>		
<i>Moderators: Alessandro Gozzi, Ph.D. &amp; Yen-Yu Ian Shih, Ph.D.</i>		
09:00	<i>Preclinical fMRI: Standardizing Acquisition &amp; Analysis</i>	Joanes Grandjean, Ph.D. Radboud University Medical Center Nijmegen, The Netherlands
09:20	<i>State-Dependent Network Alterations Revealed by Multimodal fMRI</i>	Valerio Zerbi, Ph.D. EPFL & CIBM-Center for Biomedical Imaging Lausanne, Switzerland

09:40	<i>Novel Neuroanatomical Brain Pathways Discovered with High-Resolution Diffusion Tensor Imaging</i>	Afonso C. Silva, Ph.D. University of Pittsburgh Pittsburgh, PA, USA
10:00	Break & Speaker Upload Available	
<b>Session 14: Clinical fMRI</b>		
<i>Moderators: Alessandra Bertoldo, Ph.D. &amp; Sanne Rutten, Ph.D.</i>		
10:40	<i>fMRI in ADHD: Current Status, Challenges &amp; Future Directions</i>	Anouk Schrantee, Ph.D. Academic Medical Center, Amsterdam Amsterdam, The Netherlands
11:00	<i>fMRI in Epilepsy</i>	Maxime Guye, M.D., Ph.D. Aix-Marseille University Marseille, France
11:20	<i>Brain Imaging to Study Network Abnormalities in Stroke</i>	Maurizio Corbetta, M.D. University of Padua Padua, Italy
<b>Session 15: Networks in Health &amp; Disease</b>		
<i>Moderators: Maria Eugenia Caligiuri, Ph.D. &amp; Olli H.J. Gröhn, Ph.D.</i>		
Proffered Papers - Oral Session		
11:40	<i>Relationship Between Cerebral Blood Flow, Cerebrovascular Reactivity &amp; the Amplitude of Low-Frequency BOLD Fluctuations</i>	Catarina Domingos, M.Sc. Universidade de Lisboa Lisbon, Portugal
11:52	<i>Using Co-Activation Pattern (CAP) Analysis to Study the Dynamics of the Resting-State Networks in Patients with Dementia</i>	Maurizio Bergamino, Ph.D. Barrow Neurological Institute Phoenix, AZ, USA
12:04	<i>Optogenetic Activation of the Nigrostriatal Pathway in Rats Uncovers Contextual Modulation in Connectivity Patterns Through Generalized Psychophysiological Interaction Analysis</i>	Yan Ma, Ph.D. Candidate Werner Siemens Imaging Center Tübingen, Germany
12:14	<i>Neuronal Dynamics of the Default Mode Network &amp; Anterior Insular Cortex: Intrinsic Properties &amp; Modulation by Salient Stimuli</i>	Tzu-Hao Chao, Ph.D. University of North Carolina at Chapel Hill Chapel Hill, NC, USA
12:26	<i>Cortical Excitatory-Inhibitory Balance Critically Biases Brainwide fMRI Connectivity</i>	David Sastre-Yagüe, M.Sc., M.Sc. Istituto Italiano di Tecnologia Rovereto, Italy
12:40	Closing Remarks & Presenter Awards	Wietske van der Zwaag, Ph.D. Netherlands Institute for Neuroscience Amsterdam, The Netherlands
13:00	Boxed Lunch & Adjourn	

**Take the 5-minute on-site survey!**

See the registration desk for questions.

*This survey is not for CME credits.*

# ISMRRM RESEARCH & EDUCATION FUND



The **ISMRRM Research & Education Fund** was established to support the next generation of specialists in the field of magnetic resonance regardless of scientific discipline, geography, country of origin and resources available.

**DONATE TODAY**  
and help us continue to  
**CULTIVATE THE MR LEADERS OF TOMORROW**

## MEET OUR STIPEND RECIPIENTS — THE NEXT GENERATION OF MR SPECIALISTS — AT TODAY'S WORKSHOP!

Guy Baz, M.Sc.  
Christopher Cover, M.Sc.  
Gabriel Desrosiers-Gregoire , B.Sc.  
Catarina Domingos, M.Sc.  
Elizabeth Fear, Ph.D.  
Rita Gil, M.Sc.  
Yan Ma, Ph.D. Candidate  
Francesca Mandino, Ph.D.

Marija Markicevic, Ph.D.  
Daniel Marsh, M.Sc.  
Fernanda Ribeiro, Ph.D.  
Petteri J. Stenroos, Ph.D.  
Mila Urosevic, M.Sc.  
Eneko Uruñuela , M.Sc.  
Ana Mafalda Valente, M.Sc.

*Stipends were funded in part by the NIH.*

## Posters

POSTER	TITLE	AUTHOR
1	<i>A Novel Head-Fixation Setup for Awake Rat fMRI Experiments</i>	Francesca Barcellini, M.Sc. Swiss Federal Institute of Technology Lausanne Lausanne, Switzerland
2	<i>High-Quality Mouse fMRI Data Does Not Necessitate Ventilated or Awake Protocols: Presenting a Convenient Low-Anaesthesia, Free-Breathing Approach</i>	Mila Urosevic, M.Sc. Douglas Mental Health Institute Montreal, QC, Canada
3	<i>Guidelines for the Quality Control of Network Analysis with Rodent fMRI</i>	Gabriel Desrosiers-Gregoire , B.Sc. McGill University Montreal, QC, Canada
4	<i>How Variable Are Our Rat Sensory-Evoked Functional MRI Datasets?</i>	Marie-Emmanuelle Galteau, M.Sc. Radboud University Nijmegen, The Netherlands
5	<i>Evolutionarily Conserved fMRI Network Dynamics in the Human, Macaque &amp; Mouse Brain</i>	Daniel Gutierrez, Ph.D. Istituto Italiano di Tecnologia Rovereto, Italy
6	<i>Genetic Knockout vs. Pharmacological Silencing: Influence of HCN4 Channels on Information Processing in the CNS Investigated by Mouse fMRI</i>	Maximilian Häfele, M.Sc. Friedrich-Alexander-Universität Erlangen-Nürnberg Erlangen, Germany
7	<i>Brain Asymmetry in the Mouse: Insights from a Large-Scale Dataset</i>	Alejandro Rivera-Olvera, M.Sc. Radboud University Nijmegen, The Netherlands
8	<i>Gradient-Echo EPI Versus Compressed-Sensing FLASH in High-Resolution CBVw Awake Rodent Olfactory fMRI</i>	Christopher Cover, M.Sc. University of Pittsburgh Pittsburgh, PA, USA
9	<i>Iron-Oxide fMRI Using Ultrashort Echo Time at 100<math>\mu</math>m Spatial Resolution in Mouse Visual Cortex at 9.4T</i>	Naman Jain, M.Sc. University of Queensland St. Lucia, QLD, Australia
10	<i>Zero Echo Time MB-SWIFT fMRI Allows Robust &amp; Artefact-Free Detection of Sensory Stimulus in Awake Head-Fixed Mouse with Minimal Body Restraint</i>	Petteri J. Stenroos, Ph.D. University of Eastern Finland Kuopio, Finland
11	<i>Looping Star: Quiet Structural &amp; Functional Multi-Gradient Echo MR Imaging</i>	Florian Wiesinger, Ph.D. GE Healthcare Munich, Germany
12	<i>Tissue-Susceptibility Matched Electrodes for Simultaneous Microcoil &amp; Line Scanning Measurements</i>	Aaron von Raven, M.Sc. Max Planck Institute for Biological Cybernetics Tübingen, Germany
13	<i>SpinWalk, a GPU Accelerated Framework for Monte-Carlo Simulation of Spins Random Walk</i>	Ali Aghaeifar, Ph.D. Max Planck Institute for Biological Cybernetics Tübingen, Germany
14	<i>From Microscopy Data to Hemodynamic Simulations: A Vascular Graph Approach to Understand the fMRI Signal Formation</i>	Vanja Curcic, M.Sc. University Medical Center Utrecht Utrecht, The Netherlands
15	<i>Application of Tensor Denoising on Multidimensional fMRI Data</i>	Natanael B. Semmineh, Ph.D. MD Anderson Cancer Center Houston, TX, USA
16	<i>The Effective Temporal Resolution in Task-Based fMRI at 7T: A Dynamic Phantom Study</i>	Guy Baz, M.Sc. Weizmann Institute of Science Jerusalem, Israel



## Posters

POSTER	TITLE	AUTHOR
17	<i>Field Map-Based EPI Geometric Distortion Correction Using Local Regularization</i>	Yulin Chang, Ph.D. Siemens Medical Solutions USA, Inc. Malvern, PA, USA
18	<i>Establishing an Anatomical Gold Standard of the Human Claustrum</i>	Navona Calarco, M.Sc. University of Toronto Toronto, ON, Canada
19	<i>Feasibility of Dynamic Susceptibility Contrast MRI at 3T &amp; 7T Using Breath Hold Challenge</i>	Jacob B. Schulman, B.Sc. University of Toronto Toronto, ON, Canada
20	<i>EEG-fMRI at 9.4T: Safety Assessment &amp; Artifact Correction with Carbon Wire Loops</i>	Vinod Kumar, Ph.D. Max Planck Institute for Biological Cybernetics Tübingen, Germany
21	<i>Consistency of Resting-State Correlations Between fMRI Networks &amp; EEG Features</i>	Marta Xavier, M.Sc. Universidade de Lisboa Lisbon, Portugal
22	<i>Probing the Lag Structure of fMRI Connectivity with Optogenetic fMRI</i>	Elizabeth de Guzman, Ph.D. Istituto Italiano di Tecnologia Rovereto, Italy
23	<i>Fast Diffusion fMRI Signals in the Superior Colliculus During the Negative BOLD Regime</i>	Rita Gil, M.Sc. Champalimaud Center for the Unknown Lisbon, Portugal
24	<i>The Cerebellum Drives Nonlinear fMRI Responses Differently in Action Execution Compared to Action Observation</i>	Gökçe Korkmaz, Ph.D. Student Università di Pavia Pavia, Italy
25	<i>Does the Hemodynamic Response Function in Visual Cortex Differ Between Age Groups</i>	Jurjen Heij, M.Sc. Spinoza Centre for Neuroimaging Amsterdam, The Netherlands
26	<i>Sleep Increases Propagation Speed of Vasomotor &amp; Respiratory Brain Pulsations</i>	Heta Helekari, M.Sc. University of Oulu Oulu, Finland
27	<i>Cerebellar Mean Field Model to Decode the Neuronal Mechanisms at the Origin of BOLD Signal</i>	Roberta Lorenzi, Ph.D. Università di Pavia Pavia, Italy
28	<i>Dynamic Modulation of fMRI Spontaneous Co-Activation Patterns (CAPs) Through Chemogenetic Activation of the Locus Coeruleus</i>	Nikolaos Molochidis, M.Sc. Swiss Federal Institute of Technology Lausanne Lausanne, Switzerland
29	<i>Excitation-Inhibition Balance is Dynamically Influenced by Cognitive Load Level</i>	Francesca Saviola, Ph.D. University of Brescia Brescia, Italy
30	<i>Comparing Stimulus &amp; Resting-State fMRI at 3T &amp; 7T: Only 7T Detects Motor Task Induced Modulations of Human Resting State Networks</i>	Silke Kreitz, Ph.D. Friedrich-Alexander-Universität Erlangen-Nürnberg Erlangen, Germany
31	<i>Variability of Visual Field Maps in Human Early Extrastriate Cortex Challenges the Canonical Model of Organization of V2 &amp; V3</i>	Fernanda Ribeiro, Ph.D. University of Queensland Brisbane, QLD, Australia
32	<i>Behavioural Experience Modulates BOLD-fMRI Responses in the Rat Visual Cortex</i>	Ana Mafalda Valente, M.Sc. Champalimaud Foundation Lisbon, Portugal



## Posters

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33	<i>Monaural/Binaural Auditory Push/Pull Mechanism Revealed by BOLD fMRI</i>	Frederico Severo, M.Sc. Champalimaud Research Lisbon, Portugal
34	<i>Social Isolation vs. Enriched Environment: The Differential Impact on Brain Network Segregation</i>	Taeyi You, M.Sc. Sungkyunkwan University Suwon, South Korea
35	<i>Investigation of Information Flow in the TgF344-AD Rat Model of Alzheimer's Disease Using Resting-State fMRI</i>	Mohit Adhikari, Ph.D. University of Antwerp Antwerp, Belgium
36	<i>Multimodal Neuroimaging Across Spatial Scales in a Model of Alzheimer's Disease</i>	Francesca Mandino, Ph.D. Yale University New Haven, CT, USA
37	<i>Litter Effect-Induced Bias in System Segregation Measures in TgF344-AD Rat Model of Alzheimer's Disease</i>	Federico Varriano, Ph.D. University of Barcelona Barcelona, Spain
38	<i>Exploring the Interplay Between Brain Structural &amp; Functional Connectivity in Alzheimer's Disease: A Multivariate Approach</i>	Edoardo Paolini, M.Sc. University of Verona Verona, Italy
39	<i>Dynamic Analysis of Resting-State Functional MRI Reveals Network Alterations at the Pre-Plaque Stage of Alzheimer's Disease That Coincide with Behavioral &amp; Electrophysiological Alterations</i>	Monica van den Berg, Ph.D. University of Antwerp Antwerp, Belgium
40	<i>In Chronic Traumatic Encephalopathy (CTE) Synapse Loss (SV2A-PET) &amp; Altered Functional Connectivity (BOLD-fMRI) Overlap in "Spared" Brain Regions</i>	Marija Markicevic, Ph.D. Yale University New Haven, CT, USA
41	<i>Functional Connectivity Disruption of Occipital Regions in Lewy Body Dementia</i>	Francesca Saviola, Ph.D. University of Brescia Brescia, Italy
42	<i>Resting-State Connectivity During a Focal Epilepsy Seizure</i>	Maria Celeste Bonacci, M.Sc. Magna Graecia University Catanzaro, Italy
43	Withdrawn by author	
44	<i>Functional Connectivity Across Resting-State Networks in Juvenile-Onset &amp; Adult-Onset Huntington Disease</i>	Maria Eugenia Caligiuri, Ph.D. Magna Graecia University Catanzaro, Italy
45	<i>Uncovering Migraine Cycle-Dependent Functional Connectivity Changes Through Multiscale Fingerprinting</i>	Inês Esteves, M.Sc. Universidade de Lisboa Lisbon, Portugal
46	<i>7T fMRI Subject Specific Connectivity Analysis Reveals Decreased Cerebellar Motor Function in MS Patients</i>	Emma Brouwer, M.Sc. Spinoza Centre for Neuroimaging Amsterdam, The Netherlands
47	<i>Alterations of Functional Connectivity Dynamics in Affective &amp; Psychotic Disorders</i>	Linnea Hoheisel, M.Sc. Institute for Neuroscience & Medicine (INM-3) Jülich, Germany
48	<i>Innovation Coactivation Patterns Affected in Parkinson's Disease Mild Cognitive Impairment</i>	Vicente Ferrer-Gallardo, M.Sc. Basque Center on Cognition, Brain & Language San Sebastian, Spain
49	<i>Machine Learning-Based Analysis Framework for Predicting TNFi Treatment in Rheumatoid Arthritis Patients Using Multiparametric Brain MRI Data</i>	Mageshwar Selvakumar, M.Sc. Friedrich-Alexander-Universität Erlangen-Nürnberg Erlangen, Germany

## Posters

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50	<i>Neural Correlates of Electromyogram Controlled Brain Stimulation in Post-Stroke Rehabilitation</i>	Amit Mehndiratta, D.Phil Indian Institute of Technology New Delhi, India
51	<i>Prognostication in Stroke Rehabilitation Using Machine Learning-Based Analysis</i>	Amit Mehndiratta, D.Phil Indian Institute of Technology New Delhi, India
52	<i>Probability of Mapping Primary Language Areas with Clinical Paradigms Used in Presurgical fMRI of Brain Tumor Patients</i>	Jian Ming Teo, B.Sc. MD Anderson Cancer Center Houston, TX, USA
53	Withdrawn by author	



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