

Wednesday, 26<sup>th</sup> of September, 2018

[Keynote Presentation](#)

Pascal Fries

Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with Max Planck Society, Germany

*Rhythms for Cognition: Communication through Coherence*

[Brain Connectivity Probed with Non-Invasive Neurophysiology](#)

Pedro A. Valdes-Sosa

Cuban Neurosciences Center, Cuba

*Disentangling MEEG resting-state activity and connectivity*

Christoph Michel

Universite de Geneve, Switzerland

*Mapping of brain network dynamics at rest with EEG microstates*

Viktor Jirsa

Institut de Neurosciences des Systemes, Inserm, Aix-Marseille Université, France

*Translational Neuroscience: from neurons to large-scale networks and virtual brains*

[Modeling and Analysis: Brain Parcellation](#)

David Van Essen

Washington University in St. Louis, United States

*Functional organization of cerebral cortex in humans and nonhuman primates*

Thomas Yeo

National University of Singapore, Singapore

*Generative models for cortical parcellation and dynamics*

James Haxby

Dartmouth College, United States

*A Computational model of shared fine-scale structure in the human connectome networks*

[Brain Connectivity in Neurological Conditions](#)

Jean Gotman

Montreal Neurological Institute and Hospital, McGill University, Canada  
*Yes, focal epilepsy is a network, but does it matter?*

Michael Fox  
Harvard University Clinical and Translational Science Center (CTSC), United States  
*Using the human brain connectome to localize symptoms and guide treatment*

Shi-Jiang Li  
Medical College of Wisconsin, United States  
*Staging Alzheimer's disease: linking normal, preclinical, and prodromal to the onset of overt dementia*

Silvina Horovitz  
National Institute of Neurological Disorders and Stroke, United States  
*Exploring Parkinson's Disease with non-linear dynamic functional connectivity*

Alain Dagher  
Montreal Neurological Institute and Hospital, McGill University, Canada  
*Brain networks as routes of propagation for neurodegeneration*

Thursday, 27<sup>th</sup> of September, 2018

### [Mechanisms](#)

David Kleinfeld  
University of California, San Diego, United States  
*Neuronal entrainment of vasomotion as a basis of "resting state" connectivity*

Xin Yu  
Max Planck Institute for Biological Cybernetics, Germany  
*Decipher the neuro-glial-vascular contribution to the fMRI signal at varied brain states*

Tim Murphy  
University of British Columbia, Canada  
*Event triggered and resting state imaging of mesoscale functional connectivity in mouse brain*

### [Keynote Presentation](#)

Vince Calhoun

The Mind Research Network, United States

*Spatio-temporal dynamics in fMRI and multimodal data: approaches and applications to brain health and disease*

### Resting-State Dynamics

Catie Chang

National Institute of Mental Health, United States

*Vigilance states and fMRI signal dynamics*

Shella Keilholz

Emory University and Georgia Institute of Technology, United States

*Quasiperiodic patterns of brain activity: origins and contributions to functional connectivity*

Adeel Razi

University College London, United Kingdom

*Dynamic Causal Modelling of the Resting Brain*

### Estimating the Connectome

Anastasia Yendiki

Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, United State

*Anatomically informed clustering of diffusion tractography data*

Amir Shmuel

Montreal Neurological Institute and Hospital, McGill University, Canada

*Identifying direct connections in an unknown, fine-scale, densely connected functional network*

Bharat Biswal

New Jersey Institute of Technology, United States

*Task Connectome*

Dardo Tomasi

National Institutes of Health · National Institute of Alcohol Abuse and Alcoholism (NIAAA), United States

*Task-free fMRI predicts task-related changes in brain activation, local functional connectivity density, and task performance*

### Brain Connectivity in Psychiatric Conditions

Amit Etkin  
Stanford University, United States  
*A "Circuits First" Approach to Mental Illness*

Susan Gabrieli  
Massachusetts Institute of Technology, United States  
*Intrinsic Brain Architecture Predicts Future Psychopathology*

Michelle Hampson  
Yale School of Medicine, United States  
*Biomarkers of neurofeedback response*

Rita Goldstein  
Icahn School of Medicine at Mount Sinai, United States  
*Individual differences in resting-state connectivity pattern in cocaine addiction*

### [The James Hyde Keynote Presentation](#)

Alan Evans  
Montreal Neurological Institute and Hospital, McGill University, Canada  
*Multimodal modelling of normal and abnormal brain connectivity*

Friday, 28<sup>th</sup> of September, 2018

### [Emerging Technologies](#)

Irene Neuner  
Uniklinik RWTH Aachen, Germany  
*Multimodal fingerprints of resting state derived from simultaneous MR-PET-EEG imaging*

Anna Wang Roe  
Zhejiang University, China  
*Laser-fMRI: A new method for studying the columnar connectome*

### [Mechanisms](#)

Jean Chen

The Rotman Research Institute, University of Toronto, Canada

*Vascular contributions to resting-state fMRI: Why should you care?*

Karim Jerbi

Universite de Montreal, Canada

*Unraveling the electrophysiological basis of the Default Mode Network: Combining insights from intracranial EEG and fMRI*

### Keynote Presentation

Peter Bandettini

National Institute of Mental Health, United States

*Layer-specific fMRI: A new frontier mapping activity and connectivity*

### Modeling and Analysis

Alex Fornito

Monash Institute of Medical Engineering, Australia

*Mitigating noise in pre-processing of resting-state fMRI data*

Stephen Strother

The Rotman Research Institute, University of Toronto, Canada

*The impact of preprocessing choices on disease discrimination for resting state studies*

Thomas Nichols

Oxford University, United Kingdom

*Advances in Modelling and Ignoring Temporal Dependence in Resting State Time Series*

Robert Cox

National Institute of Mental Health, United States

*TBA*

### Development of Brain Connectivity

Tamara Vanderwal

Yale University, United States

*Using movies to study the development of functional connectivity*

Lucina Uddin

University of Miami, United States

*Resting state BOLD signal variability and flexible behavior in typical and atypical development*

Adriana Di Martino

New York University School of Medicine, United States

*What can we learn from the autism connectome during sleep?*

Angela Laird

Florida International University, United States

*The impact of science, technology, engineering, and mathematics (STEM) learning and anxiety on the default mode and salience*

### Analysis: Big Data and Machine Learning

Xi-Nian Zuo

Institute of Psychology, Chinese Academy of Sciences (IPCAS), China

*Big Data for Reproducible Human Brain Mapping: Methodology, Resources and Standard*

Xiaoping Hu

University of California, Riverside, United States

*Individual Identification Based on rsfMRI using Recurrent Neural Network*

Christian Beckmann

Radboud University, Netherlands

*Charting the brain: big data analytics of resting-state connectomes for precision neuroscience*