

Basic and Advanced Brain Connectivity

Educational course introduced by the International Society for Brain Connectivity and the Quebec Bio-imaging Network

Organized by:

Bharat Biswal, New Jersey Institute of Technology, USA, and
Amir Shmuel, MNI, McGill University, Canada

Day 1: September 24th, 2018

8:30 AM

[Resting State Signals: Introduction, Methods, and Limitations](#)

Bharat Biswal, New Jersey Institute of Technology, USA

9:00 AM

[Frequency-dependent Characteristics of Resting State Signals](#)

Bharat Biswal, New Jersey Institute of Technology, USA

9:30 AM

[How to Design a Resting State Study: Imaging Parameters, Cognitive and Physiological Consideration](#)

Vesa Kiviniemi, University of Oulu, Finland

10:00 AM

Coffee Break

10:20 AM

[Pre-processing Steps and Considerations](#)

Christian Windischberger, Medical University of Vienna, Austria

10:50 AM

[Accounting for Head Motion](#)

Christian Windischberger, Medical University of Vienna, Austria

11:20 AM

[Global Correlations: What You Don't Know Will Hurt You](#)

Gang Chen, National Institute of Health, USA

11:50 AM

Lunch Break

12:50 PM

[Seeds, Components, Gradients: Spatial and Data Driven Analysis Strategies for Resting-State fMRI](#)

Boris Bernhardt, MNI, McGill University, Canada

1:30 PM

[Analysis: AFNI](#)

Paul Taylor, National Institute of Health, USA

2:00 PM

[Analysis: CONN Toolbox](#)

Sheeba Arnold, A.A. Martinos Imaging Center, Massachusetts Institute of Technology

2:30 PM

[Analysis: FSL](#)

3:00 PM

Coffee Break

3:20 PM

[Analysis: REST](#)

Jia Xi-Ze

3:50 PM

[Single Subject Analysis](#)

Xin Di, New Jersey Institute of Technology, USA

4:20 PM

[Group Level Analysis](#)

Xin Di, Sheeba Arnold, Bharat Biswal

4:50 PM

[Metabolic Contribution of Resting State Connectivity](#)

Martin Walter, University of Tübingen, Germany

5:20 PM

Q & A

[Day # 2: September 25th, 2018](#)

8:30 AM

[Diffusion MRI and Basics of Tractography](#)

Anastasia Yendiki, A.A. Martinos Imaging Center, Harvard Medical School, USA

9:00 AM

[Multi-Modal Integration: Combining DTI and fcMRI](#)

Ching-Po Lin, National Yang-Ming University, Taiwan

9:30 AM

[EEG Analysis of Resting State Signals](#)

Vesa Kiviniemi, University of Oulu, Finland

10:00 AM

[ECog Analysis of Resting State Signals](#)

Timothy Ellmore, City University of New York, USA

10:30 AM

Coffee Break

10:50 AM

[Multimodal Integration: Combining EEG and fMRI](#)

Kevin Whittingstall, U Sherbrooke, Canada

11:20 AM

[fNIRS Analysis of Resting State Signals](#)

Christophe Grova, Concordia University, Montreal, Canada

11:50 AM

Lunch

12:50 PM

[Test-Retest Reliability of Human Functional Connectomics](#)

Xi-Nian Zuo, Chinese Academy of Sciences, China

1:20 PM

[Dynamic Functional Connectivity](#)

Catie Chang, National Institute of Health, USA

1:50 PM

[Connectivity During Naturalistic Paradigms](#)

Gang Chen, National Institute of Health, USA

2:20 PM

[Introduction to Dynamic Causal Modelling](#)

Adeel Raazi, UCL, London, UK

2:50 PM

Coffee Break

3:10 PM

[Complex Network Analysis of Resting State and Task-based Imaging Data](#)

Bratislav Misic, MNI, McGill University, Montreal, Canada

3:40 PM

[Introduction to Machine Learning Methods for Analyzing Brain Connectivity](#)

Vikas Singh, University of Wisconsin, Madison, USA

4:10 PM

[Introduction to Deep Learning for NeuroImaging](#)

Andrew Doyle, MNI, McGill University, Montreal, Canada

4:40 PM

[fMRI-Based Methods of Brain Parcellation](#)

Pierre Bellec, University of Montreal, Montreal, Canada

5:10 PM

Q and A