08:00 Breakfast & Welcome

**Foundations of MEG/EEG**

08:30 The physiological origins of scalp signals: **Sylvain Baillet, PhD, Professor, Director of MEG Research & Interim Director, McConnell Brain Imaging Centre**

09:00 Basic signal extraction: ERP/ERFs, **Jeremy Moreau, PhD Student, neuroSPEED Lab**

10:00 Q&A, coffee break

10:15 Spectral analysis, **Peter Donhauser, PhD Student, neuroSPEED Lab**

11:15 Source imaging 101: **Christophe Grova, PhD, Assistant Professor, Physics Dpt, and PERFORM centre, Concordia University**

**12:00 - 13:00** Lunch break

13:00 **Keynote: Multivariate statistical analyses for MEG data:**
**Bratislav Misic, PhD, Assistant Professor, McConnell Brain Imaging Centre**

14:30 Resting state analysis and the Open MEG Archive (OMEGA), technical and ethical aspects: **Julia Guiomar Niso-Galán, PhD, neuroSPEED lab**

15:30 MEG and MSI in epilepsy: contributions and limitations illustrated in real patients: **Eliane Kobayashi, MD, PhD, Neurology and Neurosurgery, McGill University and Jeremy Moreau, PhD Student, neuroSPEED Lab**

16:00 **MEG by Example poster session**

MEG by Example Poster Session

Inter-regional phase-amplitude coupling between inferior frontal gyrus and auditory cortex predicts near-threshold pitch discrimination performance
Soheila Samiee, PhD student, neuroSPEED Lab

A Real-time imaging neurofeedback in MEG
Soheila Samiee, PhD student, neuroSPEED Lab

Non-visual light perception by the human brain
Jie Dong, PhD student, neuroSPEED Lab

High-resolution retinotopic maps estimated with magnetoencephalography
Konstantinos Nasiotis, PhD student, Pack Lab

MEG reveals filter modulation at multiple time points throughout cognitive training
Jonathan Cote, PhD student, EVS Lab

Modulation of the Beta rhythm during Action Observation
Lucie Luneau, PhD Student, Kalaska Lab, University of Montréal

Neural correlates of rapid recalibration to audiovisual asynchrony
Therese Lennert, PhD, neuroSpeed Lab

Dichoptic imbalance of luminance affects the phase component of steady-state MEG signals
Eva Chadnova, PhD, McGill Vision Research

Changes in motor connectivity associated with aging based on cortico-cortical and corticomuscular coherence
Prof Marie-Hélène Boudrias, Centre de recherche interdisciplinaire en réadaptation du Montréal métropolitain, McGill University

Detection and localization of oscillatory sources in MEG using subspace scanning
Peter Donhauser, PhD student, neuroSPEED Lab

Selective entrainment of theta-oscillations in the dorsal stream causally boosts auditory working memory
Philippe Albouy, PhD, neuroSPEED Lab and Centre for Research on Brain, Language

The value of “negative” MEG studies: Defining the functional deficit zone using spontaneous MEG in children with intractable epilepsy
Jeremy Moreau, PhD Student, neuroSPEED Lab

Fusion fo EEG and MEG increases the spike-to-spike reproducibility rate
Rasheda Arman, PhD student, Multimodal Functional Imaging Lab, McGill University
Tuesday, November 8, 2016

MEG in practice: Instrumentation and paradigm design

09:00 - 12:00 Introduction to MEG instrumentation & environment
Paradigm design considerations

12:00 - 13:00 Lunch break

Break-out groups per neuroscience interest:
Design your first experiment

13:00 - 16:00 Form focus groups (vision, attention, memory, sensorimotor, etc.)
Brainstorm and design your first MEG study
Use Psychtoolbox-3 Matlab script templates

16:00 Killam Lecture: On the Role of Alpha and Gamma Activity for Routing and Prioritizing Information Processing: Ole Jensen, PhD, University of Birmingham, School of Psychology

17:00 – 18:00 Test paradigms in McGill MEG suite

Wednesday, November 9, 2016

Data collection in practice
MRI, MEG: 2 hours max per group
Launch Freesurfer pipeline on acquired MRI volumes overnight

08:00 - 13:00 Groups 1 & 2
13:00 - 18:00 Groups 3 & 4
**Thursday, November 10, 2016**

08:00 - 18:00  **Brainstorm hands-on training on data just collected**  
Each group will be assisted by an MEG expert to do pre-processing/basic analysis on the data they collected.

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**Friday, November 11, 2016**

08:30 -12:30  **Advanced analysis**: each group will be assisted by an MEG expert  
Prepare presentations

13:30 - 15:30  **Data analysis competition**  
Each group presents to the MEG@McGill Team (30 minutes each)  
Best narrative & analysis wins special prize!

15:30 - 20:30  **Montreal 5@7 and dinner**