Exploring complex relationships between evoked and intrinsic brain activity

Organizer:
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Traditionally, cognitive neuroscience has focused on either stimulus-driven, task-evoked brain activity or intrinsic resting state brain activity. However, it is becoming increasingly apparent that characterization of either form of brain activity in isolation does not provide a complete picture of functional brain organization. Moreover, previous assumptions that task-evoked and intrinsic brain activity sum linearly have recently been called into question. The speakers will discuss several novel theoretical frameworks and analytic approaches that have emerged for characterizing complex relationships between evoked and intrinsic brain activity. Using this approach, we aim to widen the discourse around assumptions associated with analysis of brain responses to external task demands and spontaneous brain activity, providing suggestions for moving the field to a more comprehensive understanding of human brain function.

Symposia Schedule:

14:45-15:00
Dynamic and overlapping brain networks for emotion and cognition
Luiz Pessoa, *University of Maryland, College Park, MD, United States*

15:00-15:15
A holistic view of spontaneous and evoked activity in human brain imaging
Biyu He, *New York University Langone Medical Center, New York, NY, United States*

15:15-15:30
Activity flows over intrinsic and task-evoked functional networks shape cognitive task activations
Michael Cole, *The Cole Neurocognition Lab, Center for Molecular & Behavioral Neuroscience, Rutgers University, New Brunswick, NJ, United States*

15:30-15:45
Considering evoked and intrinsic functional brain network architectures
Lucina Uddin, *University of Miami, Coral Gables, FL, United States*

15:45-16:00
Questions and Answers