

# Institute for Research in Statistics and its Applications (IRSA)

## Neuro-Statistics: the interface between Neuroscience and Statistics

### Day 1: May 5, 2017

<b>Breakfast</b>		8.30am to 9:30am
<b>Martin Lindquist</b>	<i>(Short course)</i>	9am to 10am
<b>Break</b>		10am to 10:15am
<b>Martin Lindquist</b>	<i>(Short course)</i>	10:15am to 11:15am
<b>Break</b>		11:15am to 11:30am
<b>Martin Lindquist</b>	<i>(Short course)</i>	11:30am to 12:30pm
<b>Lunch</b>		12:30pm to 1:30pm
<b>Martin Lindquist</b>	<i>(Short course)</i>	1:30pm to 2:30pm
<b>Break</b>		2:30pm to 3:00pm
<b>Sophia Vinogradov</b>		3:00pm to 3:30pm
	<i>Using Data-driven Bioinformatics Approaches to Understand Puzzling Patterns in our Clinical Trial Data</i>	
<b>Gülin Öz</b>		3:30pm to 4pm
	<i>Applications of High Field Magnetic Resonance Spectroscopy in Neurodegenerative Disease</i>	
<b>Christophe Lenglet</b>		4pm to 4:30pm
	<i>Brain Microstructure Characterization using Sparse Bayesian Inference and Multi-compartment Models Estimation</i>	
<b>Jörg Polzehl</b>		4:30pm to 5pm
	<i>Towards In-Vivo Histology of the Brain</i>	
<b>Apostolos Georgopoulos</b>		5pm to 5:30pm
	<i>Time Series Analysis of Multimodal Neural Data</i>	

## **Day 2: May 6, 2017**

### ***Breakfast***

Welcome by Director, School of Statistics

8:30am to 8:50am

### ***Break***

8:50am to 9am

### **Buehler-Martin Keynote Lecture:**

**Vince Clark**

9am to 10:10am

*Neuroimaging Combined with Neurostimulation: New Methods for Verifying and Utilizing the Causal Connections Between Brain and Behavior*

### ***Coffee Break and Discussion***

10:10am to 10:20am

**Esther Krook-Magnuson**

10:20am to 10:55am

*Finding Precision to Harness Diversity in Temporal Lobe Epilepsy*

**Mark Fiecas**

10:55am to 11:10am

*Modeling Longitudinal Functional Connectivity Networks in fMRI*

### ***Break***

11:10am to 11:20am

### **Buehler-Martin Plenary Lecture:**

**Martin Lindquist**

11:20am to 12:30pm

*Brain Signatures and Models in Translational Neuroimaging*

### ***Lunch***

12:30pm to 1:30pm

### **IRSA Distinguished Plenary Lecture:**

**David Van Essen**

1:30pm to 2:40pm

*Human Cerebral Cortex: Structure, Function, Connectivity, Development, and Evolution*

### ***Coffee Break and Discussion***

2:40pm to 3pm

**Theoden Netoff**

3pm to 3:25pm

*Optimizing Deep Brain Stimulation with Noisy and Non-Stationary Responses*

**David Darrow**

3:25pm to 3:50pm

*Statistical Challenges in the Neuromodulation Parameter Space*

**Nathaniel Helwig**

3:50pm to 4:15pm

*Modeling Longitudinal Change of Brain Signals in Twins*

**Monica Luciana**

4:15pm to 4:40pm

*Is Adolescent Brain Development Impacted by Substance Use? Insights to be Gained from the Adolescent Brain and Cognitive Development (ABCD) Project*

### ***Poster Session***

4:40pm to 5:30pm

### ***Dinner***

5.30pm to 7:30pm