



# Program Schedule October 21-25, 2024



*Note: "In Person" only for Autumn 2024  
Dinners are included for participants during the evening experimental design workshops on Tuesday and Wednesday*

## Monday (General Introduction to All of fMRI; Virtual and Actual Laboratory Tour)

8:00 - 9:45	- A, B -	Overview of the Program and fMRI-Based Experiments	Robert Savoy
10:00 - 12:30	- C -	Basics of NMR and MRI: Sources of Signal and Contrast; Image Acquisition; Contrast and Tradeoffs; Safety, HRC/IRB Considerations <i>(with a short break)</i>	Robert Savoy
12:30 - 1:30		<i>Lunch</i>	
1:30 - ~2:15		Participant Introductions; Begin Design Workshop and Selection of Groups	<i>Participants</i>
2:15 - 3:15	- D -	Data Analysis Part 1: Block Design; t-Tests; Ideas for Data Reduction and the GLM	Robert Savoy
3:30 - 4:00	-E-	Data Analysis Part 1 (continued): Systematic Overview	Robert Savoy
4:00 - 5:00		Informal Discussion; <i>(Optional)</i> Tour of MRI room	Robert Savoy & <i>Participants</i>

## Tuesday

8:00 - 10:00	- H -	Experimental Task Design in Functional Neuroimaging <i>(with a short break)</i>	Robert Savoy
10:30 - 11:15	- I -	Data Analysis Part 2: Preprocessing	Robert Savoy
11:30 - 12:30	- N -	Data Analysis Part 3: First Level Estimation	Robert Savoy
12:30 - 1:30		<i>Lunch</i>	
1:30 - 2:30	- O -	Data Analysis Part 4: Second Level Estimation	Doug Greve
2:45 - 3:15		Experimental Design Workshop start	Robert Savoy
3:30 - 4:30	- J -	fMRIPrep: A Robust Preprocessing Pipeline for fMRI Data	Christopher Markiewicz
5:30 - 10:00		Experimental Design Workshop. (Includes dinner) Ends between 9 and 10pm	<i>Staff*</i> ; Robert Savoy

## Wednesday

9:00 - 10:30		Resting State fMRI Connectivity and Multivariate Analysis	Robert Savoy
10:45 - 12:00		DSI / DTI / Tractography: Getting at White Matter Tracts with MRI	Anastasia Yendiki
12:00 - 1:00		<i>Lunch</i>	
1:00 - 2:00		Databases & Reproducibility Resources	David Kennedy
2:15 - 2:45		Computational Neuroanatomy	Robert Savoy
2:45 - 3:15		Overview and Combining Software Packages	Robert Savoy
3:30 - 4:30		Optimizing Data Acquisition; Advanced Techniques in Data Acquisition	Blaise Frederick
4:45 -		Informal Discussion	Robert Savoy & <i>Participants</i>
5:30 - 10:00		Evening Experimental Design Workshop. Ends between 9 and 10pm	<i>Staff*</i> ; Robert Savoy

## Thursday

8:00 - 8:45		Review of Basic MRI (Optional, for those interested; same slides as Monday 10:00)	Robert Savoy
or			
8:00 - 8:40		Scanning Children and Adolescents <i>(informal)</i>	Consultation available
9:00 - 10:45		Topics in Advanced MRI (e.g., Phase Encoding; other topics by request)	Jonathan Polimeni
11:00 - 12:30		Data Analysis Part 5: Inference & Critical Thresholds; Review; Q&A	Doug Greve
12:30 - 1:30		<i>(discussions during Lunch)</i>	
1:30 - 2:15		Advances in Single Trial Design; Visualizing the FIR Model of Analysis	Robert Savoy
2:30 - 3:30		Topics related to Resting State Functional MRI and Connectivity	<i>faculty</i>
3:45 - 4:30		<i>Unspecified topics of interest</i>	<i>faculty</i>
4:30 - 5:30		Extra Time for Discussion and Design Workshop, as needed	<i>Staff*</i> ; Robert Savoy

## Friday

9:00 - 10:45	- W -	Selected Topics in fMRI: Experimental Task Design in the Age of Connectivity; Clinical Considerations; Using Large N examples; Grant Writing; etc	Robert Savoy
11:00 - 11:45	- Y -	Command Line Analysis of an Experiment and Visualization Demo of Freesurfer	Nathan Draudt
12:00 - 2:00		<i>Class Presentations: Experiments; Class Discussion / Feedback / Closing</i>	<i>The Program Participants!</i>

\*Staff: Experimental Design Experts: Julia Felicione; Blaise Frederick; Robert Savoy