



# Program Schedule October 19-23, 2020



(Note Code Letters will be used to Label Slide Sets)

## Monday (General Introduction to All of fMRI; Tour and Sample Data)

8:00 - 9:45	- A, B -	Overview of the Program and fMRI-Based Experiments	Robert Savoy
10:00 - 11:15	- C1 -	Basics of NMR and MRI: Sources of Signal and Contrast	Robert Savoy
11:30 - 12:30	- C2 -	Image Contrast and Tradeoffs in fMRI; Safety, HRC/IRB Considerations	Robert Savoy
12:30 - 1:30		<i>Lunch</i>	
1:30 - 2:00		Participant Introductions; Begin Design Workshop and Selection of Groups	<i>Participants</i>
2:00 - 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 -		Discuss Video Tour; Informal Discussion of the Day's lectures	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	- Q -	Overview and Combining Software Packages	Robert Savoy
2:45 - 3:15	- K, L -	Advances in Single Trial Design; Visualizing the FIR Model of Analysis	Robert Savoy
3:30 - 4:30	- P -	Computational Neuroanatomy ( <i>This and/or next lecture may be moved to Wednesday</i> )	Anastasia Yendiki
3:30 - 4:30	- J -	fMRIPrep: A Robust Preprocessing Pipeline for fMRI Data ( <i>see above</i> )	Christopher Markiewicz**
4:30 - ??		Informal Discussion of the Day's lectures	Robert Savoy & <i>Participants</i>

Times to be determined: Small Group Zoom Meetings to design experiments

*Staff\**; Robert Savoy

## Wednesday

8:00 - 10:00	- M -	Resting State fMRI Connectivity and Multivariate Analysis	Robert Savoy
10:15 - 11:15	- O -	Data Analysis Part 4: Second Level Estimation	Doug Greve
11:30 - 12:30	- R -	DSI / DTI / Tractography: Getting at White Matter Tracts with MRI	Anastasia Yendiki
12:30 - 1:30		<i>Lunch</i>	
1:30 - 2:15	- S -	Reproducibility of fMRI Experiments; Use of Large Data Bases	Robert Savoy or David Kennedy
2:30 - 3:30	- U -	BIDS: Brain Imaging Data Structure; Quality Assurance Issues	Christopher Markiewicz**
3:45 - 4:45	- G -	Optimizing Data Acquisition; Advanced Techniques in Data Acquisition	Blaise Frederick
4:45 -		Informal Discussion of the Day's lectures	Robert Savoy & <i>Participants</i>

Times to be determined: Small Group Zoom Meetings to design experiments

*Staff\**; Robert Savoy

## Thursday

8:00 - 9:45	- C -	Review of Basic MRI (Optional, for those interested)	Savoy (basics review)
9:00 - 10:45	- C -	Topics in Advanced MRI (e.g., Phase Encoding; Arterial Spin Labeling; other by request)	Jon Polimeni
11:00 - 12:00	- T -	Data Analysis Part 5: Inference & Critical Thresholds; Review; Q&A	Doug Greve
12:00 - 1:00		<i>Lunch</i>	
1:00 - 3:00	- V -	Seed-Based fMRI Functional Connectivity	Susan Whitfield-Gabrieli
3:00 - 3:45	- X -	Scanning Children and Adolescents ( <i>Informal Discussion</i> )	Constanza M. Vidal Bustamante
4:45 -		Informal Discussion of the Day's lectures	Robert Savoy & <i>Participants</i>

Times to be determined: Preparing Presentations; Discussions with experts

*Participants and Staff\**

## Friday

9:00 - 9:45	- W -	Experimental Task Design in the Age of Connectivity	Robert Savoy
9:00 - 9:45	- W -	or Introduction to Clinical Imaging	Robert Savoy
9:00 - 9:45	- W -	or Guest Lecture by Popular Demand (if possible)	<i>To be determined</i>
10:00 - 10:30	- Y -	Command Line Analysis of an Experiment with FreeSurfer/FSFAST	Andrew Hoopes
10:30 - 11:00	- X -	Spinal Cord Imaging	Robert Barry
10:30 - 11:00	- X -	or High Resolution FMRI at 7T	Jon Polimeni
11:15 - 1:15		<i>Class Presentations: Future Experiments</i>	<i>The Program Participants!</i>
1:15 - 4:30		This time is left for handling anything that came up during the week left unresolved	Robert Savoy

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

\*\* The two lectures by Christopher Markiewicz are tentative