2010 Multi Modal Short Course

Athinoula A. Martinos Center for Biomedical Imaging

Time	Week 1 : May 17-21, 2010 Monday	Tuesday	Wednesday	Thursday	Friday	Weekend Saturday	Sunday
8:00 AM - 8:30	WELCOME	breakfast	breakfast	breakfast	breakfast	Free Day, Perhaps with optional planned cultural and/or fun things to do in the Greater Boston area.	
8:30 AM - 9:00	Program Overview {Savoy}						
9:00 AM - 9:30		Data Analysis: Simple Example; General Linear Model (GLM); Opt. Im. Acq. & Preprocessing (Savoy)	Low Field MR {Matt Rosen}	DTI: Diffusion Tensor Imaging	Part 2 of FreeSurfer / FSFast Tutorial and Workshop		Get Ready
9:30 AM -10:00	Tools Overview						
10:00 AM - 10:30	Bruce Rosen Director of Athinoula A. Martinos Center		Event Related Designs {Doug Greve}	Connectivity {Whitfield-Gabrieli}			3 Hours Running MEG Experiments
10:30 AM - 11:00					Statistics and Group Studies of Structural Data		
11:00 AM - 11:30		Experimental Task Design in FMRI {Savoy}	Computational Neuroanatomy {Bruce Fischl}	DSI: Diffusion Spectrum Imaging			3 Hours Running fMRI Experiments
11:30 AM - 12:00	Overview of Functional MRI {Savoy}						
12:00 PM - 12:30			MultiVariate Analysis {Savoy}	{Van Wedeen}			10am - 4pm
12:30 PM - 1:00	Design Workshop						
1:00 PM - 1:30	lunch	lunch	lunch	lunch	lunch		
1:30 PM - 2:00							
2:00 PM - 2:30	NMR/MRI: Signals and Contrasts {Wald}	EEG/MEG Key Concepts for Functional Brain Mapping Laboratory Tours and Demonstrations maybe 7T+EEG {Hämäläinen, Bonmassar}	TMS {Alvaro Pascual-Leone; Joan Camprodon; Tommi Riaj}	Part 1 of FreeSurfer / FSFast Tutorial and Workshop	Part 3 of FreeSurfer / FSFast		
2:30 PM - 3:00							
3:00 PM - 3:30				Reconstructing a single subject's brain	FS/Fast: The Functional Analysis Stream		
3:30 PM - 4:00	NRM/MRI: Imaging, Artefacts, & Safety {Wald}						
4:00 PM - 4:30			Tour of MR Facilities Collect Structural Data {Savoy, Foley}				Clean Up
4:30 PM - 5:00							
5:00 PM - 5:30	Experimental Design Theory and Practice for EEG/MEG {Maria Mody}	The Design Workshop *Savoy*					
5:30 PM - 6:00							
6:00 PM - 6:30		Dinner in Atrium Cafe		Dinner in Atrium Cafe	There will be implementation of the experiments going on, with help from Tim Brady, during Friday at various times.		
6:30 PM - 7:00	walk to restaurant						
7:00 PM - 7:30	Class Dinner At Figs in Charlestown	Design of EEG/MEG and fMRI Experiments		Design of EEG/MEG and fMRI Experiments			
7:30 PM - 8:00							
8:00 PM - 8:30		Robert Savoy Time Brady and others		Robert Savoy Time Brady and others			
8:30 PM - 9:00							
9:00 PM - 9:30							
9:30 PM -10:00							
10:00 PM - 10:30							

Time	Week 2 : May 24-28, 2010 Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM - 8:30	breakfast	breakfast	breakfast	breakfast	breakfast
8:30 AM - 9:00					
9:00 AM - 9:30	NIRS/DOT Technology Applications, Tour, Demo, Experimental Design and Data Analysis {Maria Angela Franceschini; David Boas}	RLS Intro to PET	Neuroimaging in Cognitive Impairment {Brad Dickerson}	Class Selected Discussion Topics: e.g., Neuroscience of Moral Decision Making; NeuroEconomics	SYMPOSIUM Translational and Other Clinical Issues {Devous, Rosen, et al.}
9:30 AM -10:00		PET History {Brownell}			
10:00 AM - 10:30		2D, 3D, TOF?; PET {Devous}	fMRI and DTI in Presurgical Planning {Brad Buchbinder}		
10:30 AM - 11:00					
11:00 AM - 11:30		phMRI, PET {Jenkins}	MEG in Clinical Neuroimaging {Stufflebeam}	Cortical Electrodes in Diagnosis and Surgery {Syndey Cash}	Diplomas and Farewell *Savoy*
11:30 AM - 12:00					
12:00 PM - 12:30		Biomarkers in FNI Michael Devous	MRS, MRSI & Clinical Apps. {Ratai}		
12:30 PM - 1:00					lunch
1:00 PM - 1:30	lunch	lunch	lunch	lunch	
1:30 PM - 2:00					
2:00 PM - 2:30	Optical Microscopy {Lichtman}	The Brain's Default Network Randy Buckner	Alzheimer's Disease and MultiModal Approaches Randy Buckner	Matti will Discuss the MEG Data from Sunday	
2:30 PM - 3:00					
3:00 PM - 3:30					
3:30 PM - 4:00					
4:00 PM - 4:30	Analysis of Sunday's Experiments with Doug Greve (4-5) & Class (5-6)	MRI/FMRI: Advanced Issues and Review of Basics {Wald, Savoy}	Quality Control in fMRI Data Analysis {Whitfield-Gabrieli}	Student Presentations; Post-Workshop Discussion	
4:30 PM - 5:00					
5:00 PM - 5:30					
5:30 PM - 6:00					
6:00 PM - 6:30				Informal Class Dinner at "Maluken", a Japanese Restaurant (with Karaoke!) in Kenmore Square (Boston)	
6:30 PM - 7:00					
7:00 PM - 7:30					
7:30 PM - 8:00					
8:00 PM - 8:30					
8:30 PM - 9:00					
9:00 PM - 9:30					
9:30 PM -10:00					
10:00 PM - 10:30					

Social
fMRI (and MRI and Statistics)
Clinical; DTI/DSI, MRS/MRSI
EEG/MEG
NIRS/DOT
Future Resolution
Cortical Electrodes
phMRI/PET
TMS
Special Topic
Lab/Hands-on
Administrative

LOCATIONS: All lectures will be in the Building 75 conference room, unless otherwise announced during the program.

"TENTATIVENESS": Last minute changes in scheduling or speakers is rare, but does sometimes happen.

AUDITORS: Martinos members may audit the lectures, but not tours, dinners, laboratories, evening design workshops.

VIDEO RECORDING: Video recording of many of the lectures is planned.

(tentative)