Multivariate Pattern Analysis Course Nov 16 / 17 at NIMH

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Schedule for the Course Day 1

09:00-10:30: Organization / Intro to MVPA

Coffee break 10:30-11:00

11:00-11:15: Overview over The Decoding Toolbox

11:15-12:45: Machine learning basics

Lunch break: 12:45-02:00

02:00-02:45: Creating Matlab decoding script from scratch

02:45-03:15: Levels of analysis (wholebrain vs. ROI vs. searchlight)

Coffee break 3:15-3:30

03:30-04:00: TDT tutorial walkthrough

04:00-05:00: Coding based on examples / free coding

Schedule for the Course Day 2

09:00-09:30: Coding of searchlight analysis from scratch

09:30-10:30: Experimental Design / Preprocessing of MVPA

Coffee break 10:30-11:00

10:30-11:00: Manual set up of decoding design

11:00-12:30: Statistical Analysis of MVPA

Lunch break

01:45-02:45: Representational Similarity Analysis (RSA)

02:45-03:15: Coding of RSA

Coffee break 03:15-03:30

03:30-04:00: Open Q&A session

04:00-04:40: Talk by Fernando Ramirez on neural basis of RSA

Organizational issues (1)

- Theoretical sessions will be followed by study questions that are answered in small groups and discussed together
- Please form small groups of 3-6 for answering these questions
- Practical sessions will require laptops with TDT and Matlab
- Theoretical sessions do not require laptops

Organizational issues (2)

- The course is (only) two days and within a lecture can move from very easy to more challenging very fast

- For that reason I strongly recommend not using the laptop during lectures for other things or you may lose track

- There is ample time for that during the breaks / practical sessions

- Please interrupt if something is unclear

- Please wait with more complex or general questions until the topic has been finished or until the session is over