

IN PARTNERSHIP WITH THE

# **Shirley Ryan Kbilitylab**

# ADVANCED TMS TECHNIQUES: TMS-EEG ACQUISITION AND ANALYSIS

OCTOBER 18, 2019 - 9:00 AM

AT THE SHIRLEY RYAN ABILITY LAB, 355 E ERIE ST, CHICAGO, IL 60611

This workshop is run in collaboration with some of the world's leading TMS-EEG researchers and data analysis software experts. The workshop will feature talks and discussions that will provide a solid grounding in the theory and understanding of these techniques, and is designed to equip all delegates with the knowledge required to gather and analyze data from a TMS-EEG study.

#### **SPEAKERS**



# Monica Perez, PT, PhD,

Internationally recognized leader in spinal cord injury (SCI) research. At Shirley Ryan AbilityLab, she leads a translational research team to orchestrate the application of the most modern methods for measuring upper-extremity function.



## Rory Cutler, PhD

Applications Specialist with Brainbox, Rory Cutler helps researchers design and implement complex study protocols with new technologies. His extensive knowledge of hardware, software and study protocols has assisted multiple large-scale neuromodulation projects.

#### THE WORKSHOP PROGRAM COVERS:

- An overview and introduction to the basic physiology and principles of TMS-EEG
- In-depth, practical sessions detailing TMS and EEG hardware and software setup and looking at TMS waveform variability (monophasic vs biphasic) using multiple physiological measures
- Experimental design discussions, assisting delegates in planning and executing a full TMS-EEG research program
- · Question and answer sessions

### AGENDA:

**9:00am - 09:30am:** Introduction, physiology and principles

9:30am - 10:00am: Basic introduction to TMS and EEG

10:00am - 10:45am: TMS-EEG: potential applications and the

problem of TMS-induced artefacts

10:45am - 11:45am: Demonstration of TMS-EEG acquisition with

different sites, protocols, intensities and coils.

11:45am - 12:00pm: Open forum