Friday, November 15th, 11.30am ET (4.30pm UTC) Presentation in Zoom, accessible via the C-STAR website: http://cstar.sc.edu/lecture-series/

Leveraging Precision fMRI and TMS for Understanding and Modulating Brain Network Plasticity

Anne Billot, PhD Harvard University

Neuroplasticity is key to understanding how the human brain adapts following disruptions such as aging and stroke. In this talk, I will first present how "precision fMRI" enhances our understanding of distinct patterns of adaptation in the language and cognitive control networks, and I will discuss how these neural changes relate to cognitive performance. I will then present a neuromodulation approach that enables the selective engagement of distinct functional networks at the individual level with transcranial magnetic stimulation (TMS). This approach combines precision network mapping and electric field (Efield) optimization in an automated pipeline to assess network-level effects of TMS protocols. This talk discusses future directions to guide clinical neurostimulation decisions within individuals and enhance clinical outcomes.

The online lecture can be followed online from your computer, tablet or smartphone, in Zoom. The zoom link is accessible via the C-STAR website: <u>http://cstar.sc.edu/lecture-series/</u>

The watch party for the lecture will be in Discovery, room #140 (915 Greene Street, Columbia, SC)

For more information, or to be added to the C-STAR mailing list, contact Dirk den Ouden: <u>denouden@sc.edu</u>