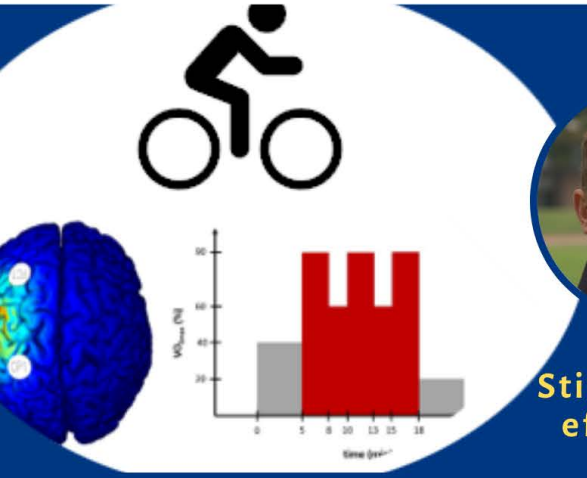
DELTA CAFÉS

Coffee Talks

PHYSICS SEMINAR



Wednesday, March 1
14:00 - 15:00, room 1.4.14

Dr. Nils Henrik Pixa
University of Münster
Germany

Stimulate, exercise, or both? The neuromodulatory effects of transcranial direct current stimulation, acute physical exercise, and their combination

In my talk, I will first give a brief introduction to the non-invasive brain stimulation technique of tDCS, its underlying neurophysiological mechanism, and its neuromodulatory effects. Afterward, I will introduce the concept of the „acute physical exercise-brain relationship“ with a closer look at how acute exercise modulates our brain activity. Finally, while both – tDCS and acute exercise - have been revealed to facilitate neuroplasticity, I will present the idea of combining both to increase efficacy by creating positive synergies and putative additive effects. Herein I will show and discuss some data and results of my recent research project.

Short bio: Dr. Nils H. Pixa studied Sport Science and obtained his PhD in 2019 at the Institute of Sport Science of the University of Mainz in Germany. He held postdoctoral positions at the Chemnitz University of Technology and, since 2020, at the Institute of Sport and Exercise Sciences in the Department of Neuromotor Behavior and Exercise at the University of Münster in Germany. His research is focused on tDCS, EEG, motor learning, the exercise-brain-behavior relationship in healthy and clinical populations, and currently expanding to the research field of neurorehabilitation.

Bring your cup, Delta provides coffee!