universität wien

Faculty of Psychology

Colloquium lecture by Prof. Alexis Hervais-Adelman

Speech in Adverse Listening Conditions: Exploring Brain States and Traits to Find Targets for Neurofeedback and Neurostimulation to Enhance Speech Comprehension.

Listeners processing speech in adverse listening conditions display great individual differences in their ability to comprehend spoken targets even with matched hearing levels. I will present recent work using MEG and EEG that seeks to find the neural basis of these differences by exploring the role of inter-individual differences in resting state brain networks and intra-individual variability in pre-stimulus brain states for degraded speech recognition. Results indicate that word-in-noise recognition ability is related to individual differences in resting state activity in left auditory cortical areas, and that prestimulus activity in the alpha band (8-12Hz) reflects a suppression mechanism that may be helpful in improving the recognition of speech in noise. I will discuss how the patterns of brain activation that appear beneficial for speech comprehension in these investigations provide the basis for ongoing work that aims to use non-invasive electrical stimulation and individualised neurofeedback to enhance comprehension of acoustically challenging speech.

Prof. Alexis Hervais-Adelman
University of Zurich

This lecture takes place at Liebiggasse 5, 1010 Wien, Lecture Hall G 2nd floor and will be streamed
Thursday, December 1, 2022; 3pm