Rhythm and other stories: naturalistic and neurobiologically relevant approaches in speech comprehension

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In this talk I will present my previous and current work on the rhythm processing of speech. In an fMRI experiment we found out that lexical stress is processed in the so-called “Rhythm network” of the brain (Kandylaki et al., 2017; Kotz et al., 2018). Next, we planned an EEG-TMS experiment to focus our investigation on the role of the Supplementary Motor Area in the rhythm network. The preparation included a behavioral experiment and computational quantification of rhythm-related features in the speech stimuli. The computational and the behavioral results will be compared and contrasted to show how rhythm is perceived in comparison to how it can be computationally evaluated. The results of the EEG-TMS experiment are currently in processing.