



EINLADUNG

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 13. November 2015, 11.00 Uhr c.t.

im Raum W30 0-33/34 der Universität Oldenburg (NeSSy)
und Raum H28 / R 2.31 des Med. Campus Magdeburg (per Videoübertragung)

"Using the when and what of temporal statistics"

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Temporal information is everywhere around us and it is long known that this information is used to guide our perception. Temporal statistics provide information about which moments in time to attend (*when*), but also offers information about the identity of a stimulus (*what*). Attending to specific moments in time is proposed to occur through the alignment of high excitable phases of ongoing oscillations to the arrival time of an expected event. We show that this type of phase alignment also occurs when one has to attend to a specific interval or to a predictable sound stream, even if it is not audible. The role of oscillations in the "*what*" of temporal statistics has received less attention, although temporal information evidently provides content cues. For example, in audiovisual speech there is a consistent relationship between the onset of lip movements and the onset of speech sounds such that different syllables have distinct visual-to-auditory onset delays. We show that these consistent delays bias participants' syllable identification. Moreover, ongoing oscillatory phase influences the perception of these syllables in the absence of visual input. Finally, we propose a mechanism in which oscillatory phase biases categorical perception as a consequence of varying temporal delays.