



EINLADUNG

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 16. Juni 2017, 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)

***"Mechanisms of Multisensory Integration and Causal Inference:
a Neurocomputational Analysis "***

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Despite several experimental and theoretical analyses, little is known about the brain's architecture underlying its abilities to exploit multisensory information from the noisy sensory environment to solve the causal inference problem and provide the best estimate of external events. The aim of this work is to realize a biologically plausible mathematical model to analyze the neural mechanisms underlying multisensory perception and causal inference. The model consists of three layers topologically organized: the first two, processing auditory and visual stimuli, separately, are reciprocally connected via excitatory synapses, and are responsible for the sensory representation of the external stimuli. The third downstream layer receives excitatory connections from the previous two and solves the causal inference problem.

Simulations results, in agreement with behavioral data reported in the literature, such as the perceived sensory bias and several sensory illusions, are critically analyzed and discussed.

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