



EINLADUNG

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 5. Mai 2017, 11.00 Uhr c.t.

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

"Testing the Jeffress' model for sound localization"

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Almost 70 years ago, Jeffress proposed a cellular model to explain how differences in the arrival times at both ears are used to localize sounds in the horizontal plane (Jeffress, 1948). He postulated neurons that fired when inputs from both ears arrived at the same time. He further postulated delay lines introducing different travel times of inputs from either ear which would allow these coincidence detectors to be specifically tuned to certain ITDs. Experimental work showed that principal neurons of the medial superior olive (MSO) fulfil many of the predictions of his model, including tuning for certain interaural time differences (ITDs). In my presentation I will discuss our work on the gerbil MSO in which we have studied to what extent the predictions of the Jeffress model are correct. By making in vivo recordings from the MSO neurons we have studied how the signals originating from both ears are integrated by the MSO neurons, and we have studied the origins of the internal delay.