



Sonderforschungsbereich/Transregio 31 "Das aktive Gehör"

EINLADUNG

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 17. Dezember 2010, 14 Uhr c.t.

im Raum W2 1-143 der Universität Oldenburg
und Raum H28 / R 2.31mediz. Campus Magdeburg,
(per Videoübertragung)

"Distortion product otoacoustic emissions and auditory steady state responses for assessing hearing loss"

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Both distortion product otoacoustic emissions (DPOAEs) and auditory steady-state responses (ASSRs) provide frequency-specific assessment of hearing. A parameter-setting and test-protocol was developed to measure DPOAEs and ASSRs binaurally and simultaneously at multiple frequencies. There was a significant correlation between pure-tone and DPOAE/ASSR thresholds. Thus, concurrent DPOAE/ASSR measurement seems to be a suited means for testing young children. Changes in pure-tone thresholds, DPOAE level and efferent reflex strength were investigated in factory workers and young people exposed to discotheque music. A significant change was found for pure-tone thresholds and DPOAE levels in the factory workers after one work day. Discotheque music (3 h) causes a deterioration of more than 10 dB for pure-tone thresholds and DPOAE levels revealing a considerable change in outer hair cell functionality. However, there was no clear correlation between efferent reflex strength and shifts in pure-tone threshold or shifts in DPOAE level suggesting that DPOAEs are not able to quantify individual vulnerability to noise.