

## **On the contribution of MEG to multisensory research: Exemplified by a study on haptic priming effects on auditory object identification**

Magnetoencephalography (MEG) allows to study multisensory integration at high temporal resolution, making it possible to find out when in the processing hierarchy integration takes place. Through source analysis brain areas involved in the integration at a particular time point can be identified. With MEG the hypothesis can be tested that synchronization of neural assemblies is a mechanism to bind information from different modalities that belong to the same object leading to a coherent percept. Oscillations induced in different frequency bands and their coherence across different brain regions can be analyzed. The contribution of MEG to multisensory research will be exemplified in this talk by a priming study on haptic-auditory object identification. As prime serves a haptic object (e.g. toothbrush) followed by an auditory sound that either belongs to the same object (e.g. toothbrush) or a different one (e.g. cork). Differences in brain activations are compared between congruent and incongruent trials.