Vortragseinladung

Freitag, den 13.12.2019, 14 ct

Thema: “A novel framework for the neural organization of action and object knowledge”

Ort: Universität Regensburg, W 114

Referent: Moritz Wurm, Center for Mind Brain Sciences, University of Regensburg, Italy

How is knowledge about things and events in the world organized in the brain? Popular theories suggest a major division between occipitotemporal and frontoparietal cortex in representing object and action information, respectively. Here I challenge this view by taking a closer look at the neural pathway of action recognition and understanding: In a series of fMRI-based MVPA studies, I show that critical levels of action representation – from basic perceptual action precursors (such as body movements toward different types of entities) to perceptually invariant representations of action meaning – can be localized in lateral occipitotemporal cortex (LOTC) rather than frontoparietal areas. Moreover, the representational organization of actions in LOTC follows salient semantic principles and appears topographically aligned with related object representations. Based on these findings, I propose an updated model of knowledge organization in occipitotemporal cortex.