

IGSN - SYMPOSIUM

Monday, May 22nd 2023 • 15.00 (3 pm)

FNO - 01 / 117

Advances in layer specific fMRI

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Acquisition methods for cortical depth-dependent fMRI

In layer-specific fMRI, spatial resolution is extremely important. The human cerebral cortex is only 2-4 millimeters thick, and consists of multiple layers of varying thickness. 'Laminar fMRI' therefore requires submillimeter acquisitions. In addition, the reliable assignment of functional signals to a given layer or cortical depth, is complicated by the draining of signal towards the cortical surface. With non-BOLD contrasts, we seek to overcome this problem. In this talk, I will present new MRI developments in line-scanning, which offers extremely high spatial resolution, and I will present our work on non-BOLD contrasts, specifically Vascular Space Occupancy (VASO) and Arterial Blood Contrast (ABC).

Host:

NIKOLAI AXMACHER Neuropsychology, Institute of Cognitive Neuroscience, Faculty of Psychology, Ruhr University Bochum

