SFB 1286 Quantitative Synaptology

UNIVERSITÄTSMEDIZIN GÖTTINGEN UMG

Online Seminar

"Discovering hidden symmetries in synaptic connectivities"

Speaker

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Time

Thursday, 3rd November 2022
5:00 PM

Location

via zoom
https://gwdg.zoom.us/j/85147921523?pwd=RHpuSGFaUXlnMWVZOWFIVjUwTVAxQT09
Meeting ID: 851 4792 1523
Passcode: 696145

Abstract
Direct connectivity measurements in the mouse primary visual cortex show large variability across experimental reports. Can various synaptic connectivity matrices lead to similar firing patterns recorded in the cortex? Vice versa, can observations of firing rate activity constrain possible synaptic wiring patterns? In this talk I will discuss our recent results from a joint project with the lab of Prof. Busse (LMU) in which we showed that model-based connectivity inference from activity recorded in the thalamus and primary visual cortex can reveal hidden ascending order in the strengths of otherwise diverse experimentally reported cortical connections. Thus, diverse cortical connectivity patterns contain mutual motifs that support canonical neural computations observed across cortices and experiments.

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