

# GUEST LECTURES

## RTG 2413

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>> Fine tuning communication in synaptic  
networks <<

**Hosted by: Jana Schulze**

29.11.2022

09:00 – 10:30 am

Zoom Lecture

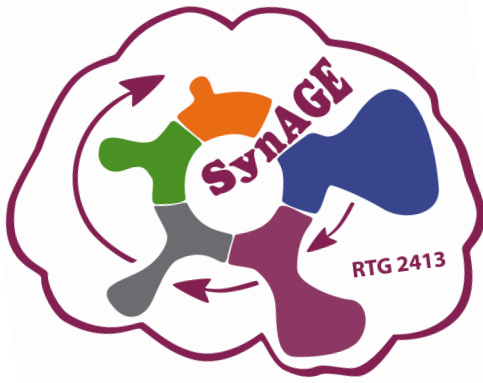
<https://ovgu.zoom.us/j/61028626617>

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### Abstract

Synaptic strength and its use-dependent changes are crucial for how the brain perceives the environment, learns and stores memories. Yet, precisely how the strengths of individual synapses are set and controlled in relationship to other synapses sharing the connection, which in turn are crucial for particular behaviors, remain to be clarified. By combining electrophysiology, imaging, and molecular biology, we have studied the cellular rules that drive the activity-dependent spatial distribution of individual pre- and postsynaptic strengths across incoming axons onto a target neuron in hippocampal networks. Our recent findings highlighting asymmetric regulation of pre and postsynaptic strengths and work aimed at understanding a role for astrocytes in shaping the distribution of synaptic strengths will be presented.

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