Contribution ID: **61** Type: **Talk**

Dynamics of large-scale spiking neural networks

Monday, September 24, 2018 2:30 PM (20 minutes)

The focus of our work lies in exploring and analyzing the function of large-scale spiking neural networks that are inspired by the cerebral cortex of the mammalian brain. The Leaky Integrate-and-Fire model serves as a starting point to investigate, e.g., biologically inspired learning methods, auditory information processing, or phase transitions in large networks. While there is plenty of biological evidence for the existence of large-scale structures in neuronal networks, experimental access is limited. In addition to our neuromorphic hardware system, we rely on large-scale software simulations, e.g. using the NEST simulator, to examine aforementioned phenomena.
This talk gives an overview over research topics that take advantage of the bwHPC ecosystem.

Abstract (optional)

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Session Classification: Session 2

Track Classification: Scientific Track