Seminar/Talk

Deciphering the brainstem, hippocampal and brain-wide dynamics by neuronal-ensemble event

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Host: Jozsef Csicsvari

Intracortically-recorded brain signals display a rich variety of transient activities: brief, recurring episodes of deflection or oscillatory activities that reflect cooperative subcircuit mechanisms. These network patterns of activity, also called neural events, span multiple spatio-temporal scales, and are believed to be basic computing elements during cognitive processes such as learning and off-line memory consolidation. However, both the large-scale and microscopic-scale cooperative mechanisms associated with these episodes remain poorly understood. Here, we sought to study the relationship between ongoing spontaneous neural events in the hippocampus, brainstem and thalamic structures by combining data from intracortical recordings, multi-compartmental network models, and functional MRI (fMRI).In the first part of my presentation, Ill talk about the mechanisms underlying sharp wave-ripple (SWR) neural events in the hippocampus. In the second part of my talk, Ill give an overview of our study of pontogeniculooccipital (PGO) waves, and specifically their relationship with hippocampal activity.

Wednesday, December 6, 2017 01:45pm - 02:30pm
Mondi Seminar Room 1, Central Building

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.
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https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.