Institute colloquium

Institute Colloquium: It takes two to tango: differential processing in olivocerebell

Chris De Zeeuw
Netherlands Institute of Neuroscience

Host:

Understanding how neurons encode information in sequences of action potentials is of fundamental importance to neuroscience. The cerebellum is widely recognized for its involvement in the coordination of movements, which requires muscle activation patterns to be controlled with millisecond precision. Understanding how cerebellar neurons accomplish such high temporal precision is critical to understanding cerebellar function. The development of optogenetics has allowed us to demonstrate how the output of the cerebellar cortex conveys its codes upon downstream areas such as the cerebellar nuclei, thalamus and cerebral cortex and how it can be influenced by its afferent systems such as the mossy fiber and climbing fiber inputs. Our results suggest that the neuronal code employed by cerebellar neurons may span a wide time scale from millisecond precision to slow rate modulations, depending on the behavioral context varying from online motor control to adaptive motor learning and depending on the module that controls these behaviors.

Monday, January 19, 2015 04:30pm - 05:30pm
Raiffeisen Lecture Hall, 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.