

CNS*2010 Workshop

Modeling the dynamics and function of cerebellar neurons and circuits.

Organizers:

Dieter Jaeger (Dept. Biology, Emory University, djaeger@emory.edu)

Volker Steuber (School of Computer Science, Univ. of Hertfordshire, v.steuber@herts.ac.uk)

Schedule:

Thursday, July 29

9:00 a.m. – 9:15 a.m.

Dieter Jaeger. "A very brief history of cerebellar theories and models."

9:15 a.m. – 10:00 a.m.

Egidio d'Angelo. Dept. Physiology, Univ. Pavia. "Realistic modeling of the cerebellar granular layer: unraveling the spike patterns of cerebellar cortex"

10:00 a.m. – 10:45 a.m.

Erik De Schutter, Okinawa Inst. Science and Technology. "Bistable behavior of the parallel fiber synapse is the basis of long-term depression: a stochastic modeling study"

10:45-11:00 a.m. Coffee break

11:00 – 11:45 a.m.

Mario Negrello, OIST. "Firing Bistability in Purkinje Cells: Asking the Primates"

11:45 – 12:30 p.m.

Fidel Santamaria., Dept. Biology, Univ. Texas San Antonio. "Modeling cerebellar nano-structure"

12:30 – 2:00 p.m. Lunch break

2:00 – 2:45 p.m.

John Porrill, University of Sheffield. "Noise Cancellation & Novelty Detection: a Role for Cerebellar-Collicular Interactions"

2:45 – 3:30 p.m.

Volker Steuber. "Synaptic plasticity, associative memory and neural coding in the cerebellum"

3:30 – 4:00 p.m. Coffee break

4:00 p.m. – 4:45 p.m.

Selvakumar Selandipalyam, Dept. Biology, Emory University. "A model of Purkinje cell input integration in the deep cerebellar nuclei based on data from awake mice".

4:45 - 5:30 p.m. General Discussion "The future of cerebellar modeling – levels and collaborations".