ELSC Special Seminar: Prof. Dmitri "Mitya" Chklovskii, Monday 26/12 at 15:00

December 26, 2016

ELSC cordially invites you to a special seminar given by:

Prof. Dmitri "Mitya" Chklovskii
Simons Foundation and NYU Medical Center

On the topic of:

?Similarity matching: a new principle of neural computation?

The lecture will be held on Monday, December 26th, at 15:00

at ELSC: Silberman Bldg., 3rd Wing, 8th Floor,

Edmond J. Safra Campus
**Abstract:**

Abundance of recently obtained datasets on brain structure (connectomics) and function (neuronal population activity) calls for a normative theory of neural computation. In the conventional, so-called, reconstruction approach to neural computation, population activity is thought to represent the stimulus. Instead, we propose that the similarity of population activity matches the similarity of the stimuli under certain constraints. From this similarity matching principle, we derive online algorithms that can account for both structural and functional observations.

**Bio:** Dmitri "Mitya" Chklovskii is Group Leader for Neuroscience at the Simons Foundation's new Flatiron Institute in New York City. He received a PhD in Theoretical Physics from MIT and was a Junior Fellow at the Harvard Society of Fellows. He switched from physics to neuroscience at the Salk Institute and founded the first theoretical neuroscience group at Cold Spring Harbor Laboratory in 1999, where he was an Assistant and then Associate Professor. From 2007 to 2014 he was a Group Leader at Janelia Farm where he led a team that assembled the largest-ever connectome. His group develops software for experimental data analysis and constructs normative theories of neural computation.

Tags: Events

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