LABORATORY OF COMPUTATIONAL NEUROSCIENCE (LCN)

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Station 15
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Thursday, October 11th, 2012
13h30, Room SG 0213

Computational Neuroscience Seminar

Axel HUTT,
INRIA CR Nancy

Dynamics of neural fields in the presence of additive noise

The presentation illustrates the effect of spatially-correlated noise by a study of a linear neural field model describing the dynamics in the ELL of weakly-electric fish. Subsequently, it is shown mathematically how global additive noise changes the stability of a neural field both with and without intrinsic delay.

The general conclusion point out that additive noise may affect the stability of nonlinear multi-dimensional systems, such as single-neuron models as well.