

# Computational Neuroscience

Lecture WS 2008/2009 – Stefan Rotter

	Date	Tentative title	Lecturer
1	23.10.2008	Stochastic theory of ionic channels	Stefan Rotter
2	30.10.2008	Theory of action potential generation	Stefan Rotter
3	06.11.2008	The integrate-and-fire neuron model	Stefan Rotter
4	13.11.2008	Stochastic theory of synaptic integration	Stefan Rotter
5	20.11.2008	Stochastic theory of neuronal spiking	Stefan Rotter
6	27.11.2008	Stochastic dynamics of recurrent networks	Moritz Helias
7	04.12.2008	Conductance based neurons and networks	Stefan Rotter
8	11.12.2008	Cable theory and dendritic integration	Stefan Rotter
9	18.12.2008	Correlations between pairs of neurons	Stefan Rotter
<i>- Christmas break -</i>			
10	08.01.2009	Population dynamics of recurrent networks	Stefan Rotter
11	15.01.2009	Higher-order correlations in neuronal populations	Stefan Rotter
12	22.01.2009	Synfire chains and pulse packets	Stefan Rotter
13	29.01.2009	Random graphs and structured networks	Stefan Rotter
14	05.02.2009	Activity dynamics of complex networks	Stefan Rotter
15	12.02.2009	Synaptic dynamics and synaptic plasticity	Stefan Rotter

23.10.2008 – subject to changes without notice!

**Lecture: Thursday 14:15 – 15:00, BCCN lecture hall, Hansastrasse 9a**  
**Exercises: Thursday 15:15 – 17:00, BCCN lecture hall, Hansastrasse 9a**

The PDF slides of the lecture and further material for the exercises can be downloaded without password from

<http://material.bccn.uni-freiburg.de/teaching/ComputationalNeuroscience/CN>

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