Statistical physics far from equilibrium (T) - StatPhysNE

Degree - M.Sc. in Physics (PO von 2014)

Module	**Elective Advanced Lectures: BCGS Courses**
Module No.	physics70d

Course	**Statistical physics far from equilibrium (T)**
Course No.	StatPhysNE

Category	**Type**	**Language**	**Teaching hours**	**CP**	**Semester**
Elective	Lecture with exercises	English	4+2	8	ST

Requirements for Participation:

Preparation: Advanced statistical mechanics

Form of Testing and Examination: Oral examination

Length of Course: 1 semester

Aims of the Course: Understanding the generic behavior of fluctuation-dominated systems far from equilibrium, and acquaintance with the basic mathematical tools used for their description.

Contents of the Course:

Stochastic methods

Transport processes

Scale-invariant growth

Pattern formation far from equilibrium

Recommended Literature:

P.L. Krapivsky, S. Redner and E. Ben-Naim: A kinetic view of statistical physics (Cambridge University Press, 2010)

M. Kardar, Statistical Physics of Fields (Cambridge University Press, 2007)