Module M.MtL.1002: Introduction to Physics of Complex Systems

Learning outcome, core skills:
Sound knowledge of essential methods and concepts from Nonlinear Dynamics and Complex Systems Theory, including practical skills for analysis and simulation (using, for example, the programming language python) of dynamical systems.

Workload:
- Attendance time: 84 h
- Self-study time: 96 h

Courses:
1. Introduction to Physics of Complex Systems (Lecture) 4 WLH
2. Introduction to Physics of Complex Systems (Exercise) 2 WLH

Examination: written examination (120 Min.) or oral examination (approx. 30 Min.)

Examination prerequisites:
At least 50% of the homework of the exercises have to be solved successfully.

Examination requirements:
Knowledge of fundamental principles and methods of Nonlinear Physics Modern experimental techniques and theoretical models of Complex Systems theory.

Admission requirements:
none

Recommended previous knowledge:
Basic programming skills (for the exercises)

Language:
English

Person responsible for module:
Prof. Dr. Stefan Klumpp

Course frequency:
each winter semester

Duration:
1 semester[s]

Number of repeat examinations permitted:
one

Recommended semester:
1

Maximum number of students:
30