SoSe 2017 | LECTURE ANNOUNCEMENT

NANOSTRUCTURED MATERIALS

TIME
Lecture: Tuesdays 2. DS (09.20 a.m. – 10.50 a.m.)
Exercise: Wednesdays 4. DS (1.00 p.m. – 2.30 p.m.)
Lab course: on appointments

START
04.04.2017

LOCATION
SCH/A216/H (Lecture), MOL/213/H (Exercise)

LECTURERS
Prof. Dr. G. Cuniberti / Dr. L. Baraban

LANGUAGE
English

SUBJECT
The course deals with the physical properties of nanostructured materials and their fabrication. Lab classes accompany the course. The following topics are discussed:

• scaling laws, mesoscopic systems, quantum effects
• bottom-up synthesis of the materials
• top-down nanostructuring via electron beam lithography, optical lithography, and scanning probe techniques
• density of states and electron transport in low-dimensional systems
• nanoelectronic devices, biosensors
• microfluidics and optofluidics