Module title: Spintronics

Abbreviation: 11-SPI-Int-201-m01

Module coordinator: Managing Director of the Institute of Applied Physics

Module offered by: Faculty of Physics and Astronomy

ECTS: 6

Method of grading: numerical grade

Duration: 1 semester

Module level: graduate

Other prerequisites: --

Contents:
In this lecture, the basic principles of spin transport are taught, with a particular emphasis on the phenomena of giant magnetoresistance and tunnel magnetoresistance. New phenomena from the fields of spin dynamics and current-induced spin phenomena are discussed.

Intended learning outcomes:
Knowledge of basic principles of spin transport models and of applications of spin transport in information technology. Overview over the state-of-the-art findings in this field (giant magnetoresistance, tunnel magnetoresistance).

Courses:
V (3) + R (1)

Module taught in: English

Method of assessment:

a) written examination (approx. 90 to 120 minutes) or
b) oral examination of one candidate each (approx. 30 minutes) or
c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or
d) project report (approx. 8 to 10 pages) or
e) presentation/talk (approx. 30 minutes).

If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.

Assessment offered: In the semester in which the course is offered and in the subsequent semester

Language of assessment: English

Allocation of places:
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Additional information:
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Referred to in LPO I (examination regulations for teaching-degree programmes):
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Module appears in:
keinem Studiengang zugeordnet