PHYS-616

Solid State Physics X: experimental techniques

Rønnow Henrik M., Zivkovic Ivica

Cursus	Sem.	Type
Physics		Obl.

Language of teaching	English
Credits	3
Session	
Exam	Oral
Workload	90h
Hours	**42**
Courses	28
Exercises	14
Number of positions	

Frequency

Every 2 years

Remark

Postponed to fall 2020

Summary

This course allows students to learn the details of selected experimental techniques in solid state physics with some theoretical background. After the course students should be able to use presented techniques in their own research and advance their knowledge by studying the subject further.

Content

Presented experimental techniques:
1) Charge transport
2) Magnetization
3) Magnetic susceptibility
4) Specific heat
5) Thermal conductivity
6) Electron spin resonance
7) Nuclear magnetic resonance
8) Angle-resolved photo-emission spectroscopy
9) Resonant x-ray scattering
10) Neutron scattering

Learning Prerequisites

Required courses

N/A

Recommended courses

N/A

Expected student activities

to understand advantages and disadvantages of presented techniques, to plan and use those techniques within his PhD project