

Advanced topics in condensed matter (Acronym: PHY-VFATCM)

Lectures on: **Wednesdays, 16:15-17:45**

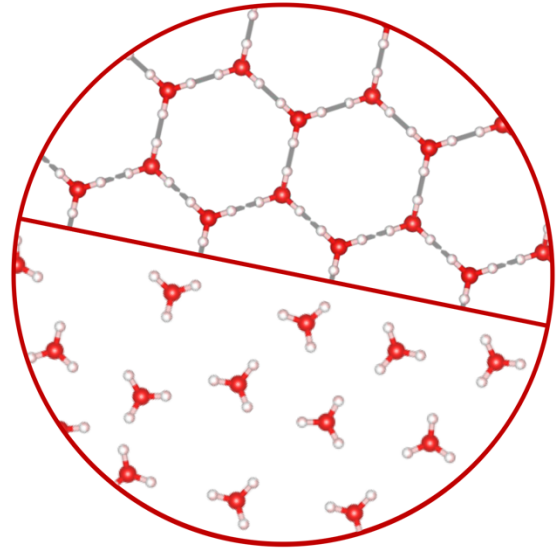
Auditorium: **C9A03 (in person)**

First lecture: October 15th, 2025

Lecturers: Dr. Ivan Zaluzhnyy
Dr. Harish Srinivasan
Prof. Dr. Dr. h.c. Frank Schreiber

Language: English

Credit: 3 ECTS



Synopsis

The series of lectures will present advanced topics in condensed matter physics. The focus of the course lies in describing the structure and dynamic of condensed matter using scattering and spectroscopic techniques. We will also describe some experimental techniques involving neutron and X-ray scattering and discuss the principles of large scale facilities – neutron sources and synchrotron storage rings.

Selected keywords

- Crystal structures and scattering of X-rays and neutrons
- Lattice dynamics and inelastic scattering of neutrons from phonons
- Structure of partially ordered systems
- Diffusion
- Large scale facilities: neutron sources and synchrotrons

Link at group homepage

www.soft-matter.uni-tuebingen.de/vorlesung_ws25_atcoma.html