



LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

Summer Term 2024

Physics and Applications of Laser-Plasma-Accelerators

Florian Grüner

Course Description:

Topics:

- physics of free-electron lasers (FEL)
- deriving the theory of FELs
- FEL-instability
- physics of laser-plasma physics
- applications, e.g. laser-driven X-ray sources for medical imaging

Prerequisites:

Basic physics background, all relevant concept and theories will be derived in the lecture.

Literature:

Will be discussed at the beginning of the lecture.

Date and Place:	Mon, 9:00–10:30, SemRm 3114, Bahrenfeld Wed, 9:00–10:30, SemRm 3114, Bahrenfeld
Problem Classes:	Wed, 10:45–12:15, SemRm 3114, Bahrenfeld
Starting on:	3 April 2024
