



LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

Summer Term 2021

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 8:30–10:00, Wed 8:30–10:00, BigBlueButton
<https://bbb1.physnet.uni-hamburg.de/b/flo-rwv-wqz>

Problem Classes: Wed, 10:15–11:45, BigBlueButton

Starting on: 7 April 2021
