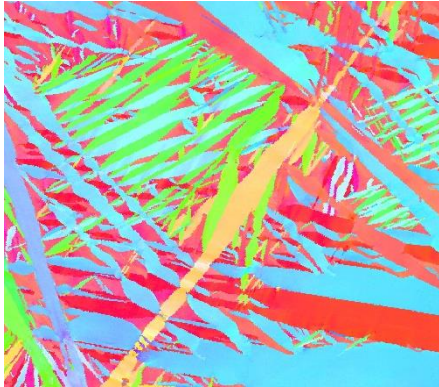


WS 2022/2023



ELEMENTS OF MICROSTRUCTURE (EOM)

Location and Time:

ICAMS IC 02/718, Wednesdays 14:00-16:00

Teachers:

Prof. Dr.-Ing Gunther Eggeler (GE)

Dr.-Ing. Hongcai Wang (HW)

MSc. Catalina Pineda Heresi (CPH)

Teaching Assistants:

MSc. Yucen Shen (YS) and MSc. Catalina Pineda Heresi (CPH)

This course introduces the basic elements which are needed to understand the formation and evolution of microstructures of engineering materials. It is targeted towards students of the Master Course "Materials Science and Simulation". It is open to all other students, postdocs and guests who are interested in these basic concepts. Lectures and course materials are in English. Please register for the course in the RUB system (Moodle: Elements of microstructure ([440402-WiSe22/23](#))) to receive the latest information or contact the course assistants, MSc. Yucen Shen (yucen.shen@rub.de) and MSc. Catalina Pineda Heresi (sara.pinedaheresi@rub.de).

Schedule

- 12. October:** Solid-state basics (GE)
- 19. October:** Point defects and dislocations (HW)
- 26. October:** Interfaces (HW)
- 2. November:** Exercise I (CPH)
- 9. November:** Diffusion (HW)
- 16. November:** Thermodynamic Concepts (CPH)
- 23. November:** Phases, Compounds and Phase Diagrams (GE)
- 30. November:** Exercise II (CPH)
- 7. December:** Solidification (GE)
- 14. December:** Precipitation in the solid state (GE)

WINTER BREAK

- 11. January:** Exercise III (CPH, YS)
- 18. January:** Solid state transformations (GE)
- 25. January:** Exercise IV, summary and questions (GE)