Karlsruhe Institute of Technology

IAM
Institute for Applied Materials

Plasticity

Lecture for “Mechanical Engineering” and “Materials Science and Engineering”
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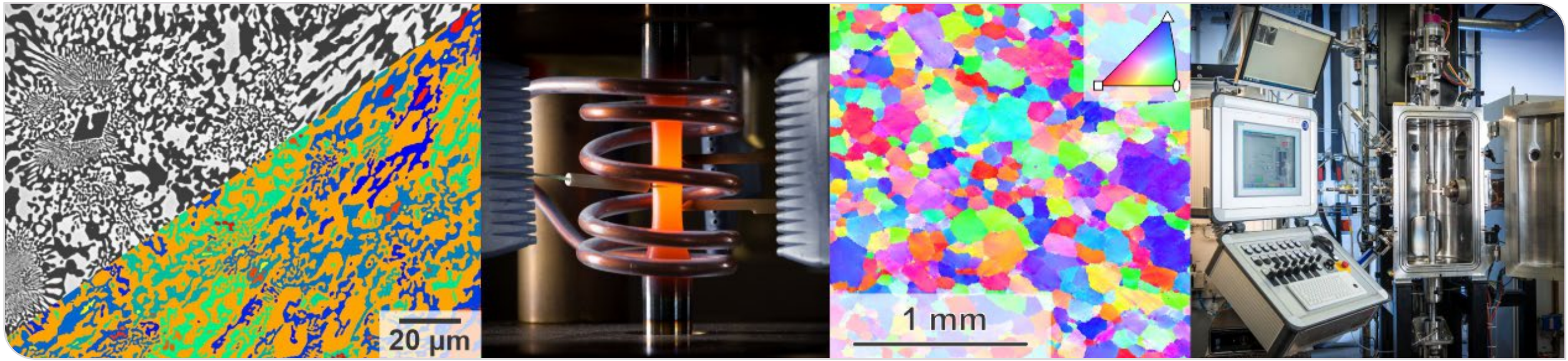

Software

- In order to **improve students' ability to independently solve mathematical and engineering problems**, we will provide *optional* **examples incl. experimental data** to underpin certain aspects. We are convinced that own experience in data handling (conversion, manipulation, correction) and some programming skills will improve your general skills as future engineers. *Nevertheless, this is up to you and we will only discuss these examples on request.*
- Following software can be installed via KIT students software shop: https://kitscc.asknet.de/
  - "Mathematica" (Wolfram): will be used to analytically solve certain equations by computer aid and visualization of problems (if necessary, selected analytical examples can also be provided in "Mathcad Prime" on request)
  - "Matlab" (MathWorks): will be used for short (script-based programming) examples for visualization of certain problems during the lecture
  - any advanced spreadsheet or data manipulation and visualization software you are familiar with (we recommend "Origin" for Windows users)
- Following public domain or open source software might be useful:
  - "Vesta" (JP Minerals): can be used to view the crystal structure examples from the lecture in three dimensions http://jp-minerals.org/vesta/en/