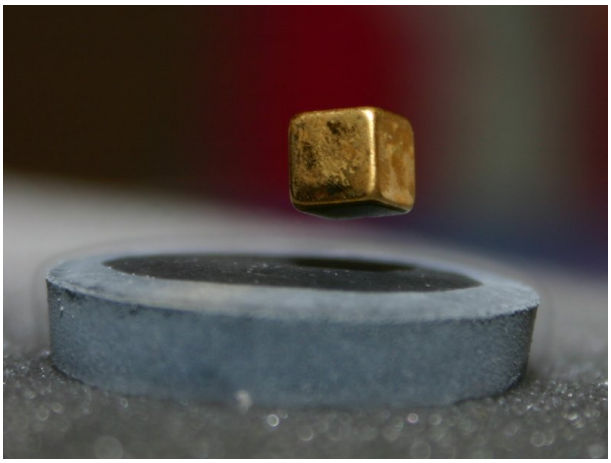
Kaiserslautern, October 23, 2025

Superconductivity



Content

References for Superconductivity

- J.F. Annett, *Superconductivity, Superfluids, and Condensates*, Oxford University Press (2005)
- K.-H. Bennemann and J.B. Ketterson (Eds.), *The Physics of Superconductors: Vol. I Conventional and Unconventional Superconductors, Vol. II Novel Superconductors*, Springer (2008)
- S.J. Blundell, *Superconductivity - a Very Short Introduction*, Oxford (2009)
- P.G. De Gennes, *Superconductivity of Metals and Alloys*, Taylor & Francis (1999)
- R. Kleiner and W. Buckel, *Superconductivity - Fundamentals and Application*, Wiley (2015)
- M. Tinkham, *Introduction to Superconductivity*, Dover (2004)

References for Solid-State Physics

- N.W. Ashcroft and N. Mermin, *Solid State Physics*, Harcourt College Publishers (1976)
- P. Hofmann, *Solid State Physics: An Introduction*, Wiley (2008)
- C. Kittel, *Introduction to Solid State Physics*, Wiley (2012)
- K. Kopitzki und P. Herzog, *Einführung in die Festkörperphysik*, Springer Spektrum (2017)
- S.H. Simon, *The Oxford Solid State Basics*, Oxford University Press (2013)
- D.W. Snoke, *Solid State Physics: Essential Concepts*, Cambridge University Press (2020)

Organizational Remarks

- 2 hours per week
- 4 ECTS credits
- Certificate for active participation:
  - Seminar talk of 15 minutes at semester end
  - Suggestions for topics announced in December
- **Oral module exam possible**