IMPRS UFAST

MAX-PLANCK-GESELLSCHAFT

IMPRS UFAST core course

Solid State Physics

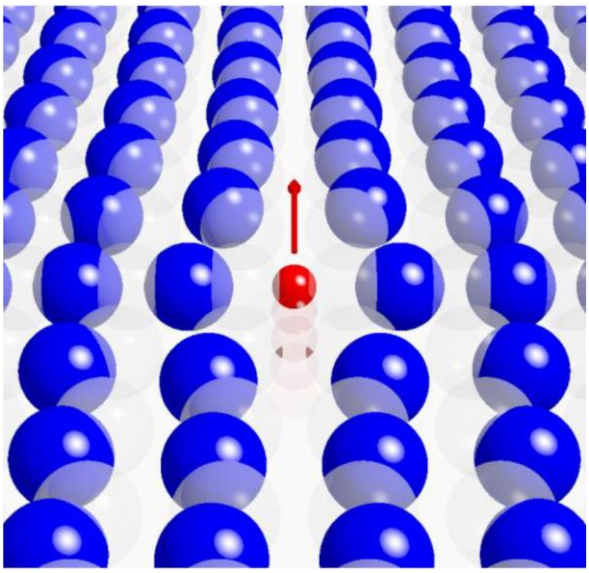
Michael Sentef

Abstract:

From a microscopic point of view, a solid is just a regular arrangement of atoms, embedded in a soup of electrons. Yet, a remarkably rich manifold of phenomena emerges from this simple starting point, ranging from simple metals and semi-conductors to multiple kinds of magnetic order or super-conductivity. In this course we will discuss basic properties of solids and their microscopic understanding.

Topics include:

- Band theory
- Screening
- Phonons
- Ordered phases



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Online course

8th – 13th March 2027, 10:00 – 13:00 h

Register on Geventis: I-UF C3

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