

Semiconductor Quantum Structures

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Contents:

- Basics of quantum wells and superlattices
- Fabrication of quantum structures: wells, wires, dots
- Transport (tunneling and 1D transport)
- Optical properties (interband & intersubband, devices)
- Electrons in a magnetic field (Quantum Hall Effect)
- Graphene and other 2D materials

Aimed at Students of physics, materials science or electrical engineering, bachelor or master

Previous knowledge: basic quantum mechanics & solid state physics,

Literature: E.g. John H. Davies: "The Physics of Low-Dimensional Semiconductors", Cambridge University Press, 1998.

Time: Tuesday, 5. DS (14:50 – 16:20)

Location: BEY 98

Start: Tuesday, 13. October 2015