

**J. König**

**Title I: Basics of Semiconductor Spintronics: Spin Dynamics, Spin-Orbit Coupling, and Spin Relaxation**

Abstract:

Spintronic devices rely on exploiting the spin degree of freedom of charge carriers. Spintronics in semiconductors seems particularly attractive since the charge-carrier properties can be controlled by doping and/or electric fields. In this lecture, we will give an introduction to basic concepts of semiconductor spintronics, with a special emphasis on spin dynamics, spin-orbit coupling, and spin relaxation.