



universität  
wien



## DK Seminar

October 21, 2015, 13:30 - 15:00  
Vienna University of Technology,  
Freihaus, green area, 4th floor, 101C

**Polina Shpartko**

Vienna University of Technology

### **Possibility of consideration of energy transport in spin-polarized model for semiconductors**

Spin of an electron as an additional degree of freedom to the electrons charge could be used to transport and store information in microelectronic devices. My previous work concerned spin-polarized drift-diffusion model describing transport of spin in semiconductors. In the talk I will present several models which except of charge and spin transport incorporate also the transport of energy. I will explain the origin of these models, discuss their physical validity and share the ideas about their solvability.