



EINLADUNG zum IFP-SEMINAR

- Thema: **Physical properties of the anisotropic Kondo insulator CeRu₄Sn₆**
- Vortragender: **Hannes Winkler**
Institut für Festkörperphysik, TU Wien
- Host: Silke Bühler-Paschen
- Termin: **Mittwoch, 28. August 2013, 14:00 Uhr**
- Ort: Institut für Festkörperphysik, TU Wien
Wiedner Hauptstraße 8-10, 1040 Wien
Seminarraum 138B, 7. OG (rote Leitfarbe)
- Förderer: ERC-AdG-227378 QuantumPuzzle

In Kondo insulators/semiconductors, the Kondo effect leads to the opening of a narrow gap in the electronic density of states (DOS) at the Fermi level. The commonly adopted hybridization gap picture provides an overall description of the most common, cubic Kondo insulators. However, in systems with lower symmetry the situation is more complex, and far from being understood. Here, the tetragonal compound CeRu₄Sn₆ will be discussed.

Polycrystalline CeRu₄Sn₆, first synthesized in 1992, was suggested to be a Kondo insulator in 2005. Within my PhD thesis, high quality single crystals of CeRu₄Sn₆ were grown. A broad spectrum of physical properties was investigated both at the Institute and in external collaboration. All properties show distinct anisotropy between the tetragonal [001] axis and the basal (001) plane and we suggest anisotropic hybridization to be the main origin of this behaviour.

