



EINLADUNG zum IFP-SEMINAR

Symmetries and Interactions in Kondo insulators

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Host: Silke Bühler-Paschen
Termin: **Donnerstag, 13 Juli 2017, 11:00 Uhr**
Ort: Institut für Festkörperphysik, TU Wien
Wiedner Hauptstraße 8-10, 1040 Wien
Seminarraum DC rot 07 (roter Bereich, 7. OG)
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This talk will demonstrate how symmetries and composite order parameters lead to new insights of Kondo insulators. I will show that nonsymmorphic symmetries intertwining with electronic structures can give rise to a new type of topological insulating phase. The corresponding protected surface states have a Mobius twist. This analysis reveals the understanding for archival resistivity measurements in nonsymmorphic Kondo insulator CeNiSn. The second part of my talk, I will demonstrate the concept of a Skyrme insulator which describes the coherent dielectric state resulting from the topological failure of super flow carried by the composite order parameter. We apply this idea to SmB₆, explaining the observation of diamagnetic Fermi surface with insulating behavior.