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# EINLADUNG zum IFP-SEMINAR

## **Mott physics and magnetism in correlated spin-orbit materials**

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Host: Jan Kunes  
Termin: Mittwoch, 10. Oktober 2018, 16:00 Uhr  
Ort: Institut für Festkörperphysik, TU Wien  
Wiedner Hauptstraße 8-10, 1040 Wien  
Seminarraum DC rot 07 (roter Bereich, 7. OG)

### Abstract:

The amazing properties of strongly-correlated systems stem from the interplay of interactions with similar strength. Thanks to the successful merge of modern many-body methods and ab-initio techniques, we now have very powerful tools for disentangling this complex interplay. Still, spin-orbit systems remain particularly difficult to describe. Recent methodological advances make it however possible to include the spin-orbit interaction in realistic many-body simulations. In this talk I will use these successful approaches to explain Mott physics and magnetism in representative spin-orbit materials — from layered ruthenates to potential-qubits nano-magnets.