

The Journal Club of Condensed Matter Physics



Physikalisches Institut
Raum 3.014

This Week:



Speaker:
Marvin Lenk
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Heavy-Fermion Systems and Some Exotic Examples

Abstract: In this talk I will discuss the physics of heavy-fermion systems and my current research in this field, including topological systems and exotic effects in this category. Starting from simple concepts in condensed matter theory and quantum mechanics, I will briefly explain the origin of the Kondo effect and how heavy Kondo-bands can form in real-world alloys. In that context, dynamical mean-field theory (DMFT) and the non-crossing approximation (NCA) will be briefly discussed as methods to numerically solve such systems. Finally, I will present results of applying these methods to solve bulk topological Kondo-insulators like SmB₆ and the quadrupolar two-channel Kondo effect in PrV₂Al₂₀.

Wednesday 2 PM
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