

SFB 608

Einladung zum Kolloquium

- Ort:** Universität zu Köln
II. Physikalisches Institut, Seminarraum 201
- Zeit:** 11. October, 2006, 14:30 Uhr
- Sprecher:** Z. Hossain
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- Thema:** Heavy fermion behaviour in YbIr_2Si_2 and
Quadrupolar order in YbRu_2Ge_2

YbRh_2Si_2 ($T_N = 70$ mK) has been intensively investigated due to its proximity to a quantum phase transition. We have synthesized high quality single crystals of the related compound YbIr_2Si_2 which provides a unique opportunity for the investigation of Quantum Critical Points (QCP): it is located on the non-magnetic side of the QCP and thus a suitable candidate to investigate pressure induced magnetic order and/or superconductivity in Yb-based heavy fermion systems. I shall discuss on heavy fermion behaviour, pressure induced magnetic order, prospects for finding superconductivity in YbIr_2Si_2 and our recent finding of quadrupolar order in YbRu_2Ge_2 .

Gez. Prof. M. Abd-Elmeguid