



Festkörper-Kolloquium und Sonderseminar TRR 80

am Donnerstag, 24.07.2014

um 17:15 Uhr

spricht

Prof. James Schilling

**Department of Physics
Washington University St. Louis, Missouri, USA**

im HS 3 im Physik-Department

über das Thema

Magnetic ordering at anomalously high temperatures in Dy at extreme pressures: a new Kondo-lattice state?

Gd metal possesses with 292 K the highest magnetic ordering temperature of any lanthanide. In recent high pressure resistivity experiments to nearly 160 GPa, however, the magnetic ordering temperature of Dy is estimated to soar to 400 - 500 K. This appears to be the result of the transformation of Dy under extreme pressure from a conventional lanthanide to a Kondo lattice state. This is surprising since in a Kondo lattice magnetic order is normally assumed to be suppressed rather than enhanced. A comparison is made with parallel experiments on Tb and Gd.

ab 17:00 Uhr Kaffee vor dem Hörsaal

Einführung: C. Pfeleiderer