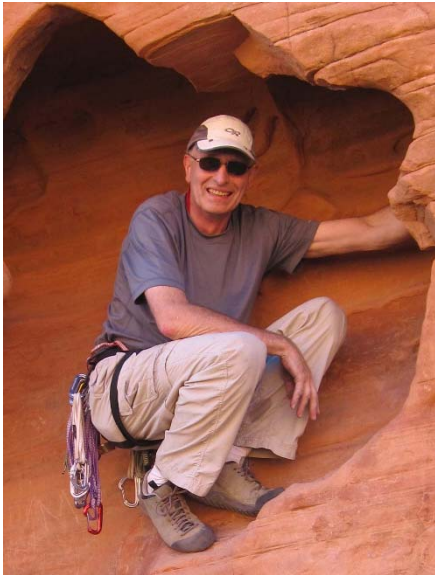


# PHYSIKALISCHES KOLLOQUIUM



Mittwoch, 23.04.2014, um 16:00 Uhr

Ort: Reichenhainer Str. 90; Neues Hörsaalgebäude, Raum: 2/N013

## Prof. Dr. Dietrich Belitz

Institute of Theoretical Science

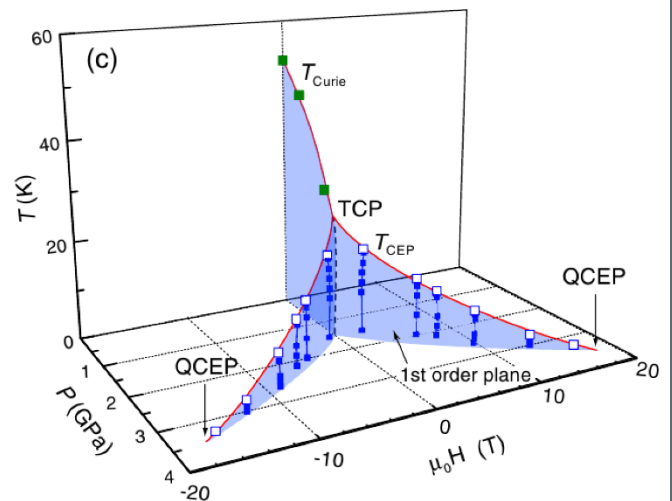
Department of Physics

University of Oregon, Eugene OR, USA

## The Ferromagnetic Quantum Phase Transition in Metals

In pure ferromagnets that allow for the Curie temperature to be tuned (e.g., by means of hydrostatic pressure) to low temperatures, the order of the transition invariably switches from second order to first order before a quantum critical point is reached. The phase diagram of UGe<sub>2</sub> (see the nearby phase diagram as measured by Kotegawa et al (2011)) is a representative example:

A tricritical point (TCP) separates a line of second-order transitions from a line of first-order transitions, and in a magnetic field tricritical wings of first-order transitions appear that end in a quantum critical end point (QCEP). This talk will present a theory that explains this remarkably universal phase diagram in terms of fundamental properties of Fermi liquids



Alle Zuhörer sind ab 15.45 Uhr zum Kaffee vor dem Hörsaal eingeladen.