SFB 608

Einladung zum Kolloquium

Ort: Universität zu Köln
II. Physikalisches Institut
Seminarraum 201

Zeit: Mittwoch, den 5. Juni 2002, 16 Uhr s.t.

Sprecher: Dr. P. Fazekas
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Thema: On the Phase diagram of $BaVS_3$

Like many other transition metal compounds, $BaVS_3$ has a metal - insulator transition, with the transition temperature decreasing under pressure. However, both the conducting and the insulating phases are unusual. At ambient pressure, the transition goes from a metal with pseudo-gap to a non-magnetic insulator with spin gap. The high-pressure metallic phase is a non-Fermi liquid.

The results of electrical, magnetic, and optical measurements carried out in Lausanne and Budapest are reviewed and discussed. It is not clear yet which minimal model of $BaVS_3$ could account for all the observations, but spin-orbital resonance of t_{2g} electrons on the triangular lattice should be at least part of the story.

gez. Lorenz