

SFB 608

Einladung zum Kolloquium

- Ort:** Universität zu Köln
II. Physikalisches Institut, Seminarraum 201
- Zeit:** Mittwoch, 16. Februar 2005, 14 Uhr c.t.
- Sprecher:** Priv.-Doz. Götz Uhrig
Institut für Theoretische Physik
Universität Köln
- Thema:** Signature of collective excitations close to the metal-to-insulator transition

A high-resolution calculation of the dynamical mean-field equations for the half-filled Hubbard model reveals the signature of collective excitations close to the metal-to-insulator transition. This calculation has become possible by current advances in dynamical density-matrix renormalization. The effect of collective excitations is seen as sharp peaks at the inner edges of the Hubbard bands. These peaks evidence a strong interaction between charge and collective degrees of freedom. The relevance of this finding to transition metal compounds is discussed. Any input from the SFB will be most welcome.

Gez. Prof. E. Müller-Hartmann