

**Prof. Dr. F. Cichos**  
**Prof. Dr. K. Kroy**



Sächsische Forschergruppe FG877

**UNIVERSITÄT LEIPZIG**

**Fakultät für Physik und Geowissenschaften**

Institute für Physik

# Physik-Kolloquium

**Dienstag, den 11.01.2011, 17:00 Uhr**

**Prof. Dr. Igor Sokolov**

Humboldt-Universität zu Berlin, Mathematisch Naturwissenschaftliche Fakultät I  
Institut für Physik, Bereich Theoretische Physik

## **Aging and Universality in Subdiffusion**

I will discuss subdiffusive transport within the continuous time random walk model as appearing in the mean-field description of a particle diffusing in a random energy landscape. Non-stationary increments cause aging and such unusual properties of the time evolution as death of linear response and intrinsic ergodicity breaking. The latter can have different manifestations, like the explicit dependence of the moving time averages on the interval of averaging or universal fluctuations in time-averaged kinetic coefficients whose ensemble averages are sharp. I discuss how these properties are (or can be) used in the interpretation of experimental or numerical findings. I will consider some cases of anomalous diffusion of mixed origin, e.g. involving geometric and energetic disorder at the same time.

**Ort: Hörsaal für Theoretische Physik, Linnéstraße 5**

**Alle Teilnehmer sind ab 16:30 Uhr zu Kaffee und Kuchen in die Aula eingeladen.**