

# EINLADUNG zum ZIH - KOLLOQUIUM

**Title:** **Epidemic processes on networks and generalizations**

**Referent:** **PD Dr. Tyll Krüger**  
**Universität Bielefeld, Forschungszentrum BiBoS**

**Zeit:** **Donnerstag, den 29. November 2007, 10:00 Uhr**

**Ort:** **Informatik-Neubau, Nöthnitzer Str. 46, Raum INF 1096**

**Abstract:**

The talk gives an overview about basic properties of epidemic processes on various classes of networks. The classical SIS and SIR processes are discussed and connections to percolation theory and branching processes are highlighted. In the second part of the talk generalized epidemic processes are introduced which differ from standard epidemic processes in the local transition rules and an additional mean-field term. Applications are given for HIV dynamics, knowledge spread and opinion formation.

**gez. Prof. Dr. Wolfgang E. Nagel**