

## **Theoriekolloquium**

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Am **1. Dezember 2011** um **14.15 Uhr** in **W2 1-143** hält

**Herr Dr. Thomas Speck (Düsseldorf)**

einen Vortrag mit dem Titel

### **Entropy Production and the Fluctuation-Dissipation Theorem in Non-Equilibrium Steady States**

The fluctuation-dissipation theorem is one of the fundamental relations of equilibrium statistical physics. Its importance in experiments and computational physics stems from the fact that it allows to determine transport properties from equilibrium fluctuations; the oldest and probably best known example being the Einstein relation between diffusion and friction coefficient. I will show that the continuation of the fluctuation-dissipation theorem to non-equilibrium steady states is surprisingly simple and insightful when using notions from stochastic thermodynamics and fluctuation theorems. I will illustrate the theory with experimental results for a single driven colloidal particle, and numerical results for a tagged particle in a shear driven colloidal suspension.

Interessierte sind herzlich eingeladen.

gez. Prof. Andreas Engel