

**PHYSIKALISCHES KOLLOQUIUM
EINLADUNG**

Monday, 02.11.2015, 16.15 p.m., W2-1-148

speaks

**Prof. Dr. Reimer Kühn,
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about

Risk and the Statistical Physics of Falling Dominoes

In this talk I shall discuss the modelling of systemic risk using methods of Statistical Physics. Traditional approaches to risk have treated risk events, incidents of things going wrong in a system, as independent or, at best statistically correlated. This clearly misses functional and dynamic relations that exist in networks of interacting processes or in networks of financial positions. One of the principal concerns in systems of interacting risk elements is the possibility of *avalanches* of failures, so well captured by the metaphor of falling dominoes. In this talk we will look at simple models of systemic risk and their analysis using methods of Statistical Physics, including operational risk, credit risk, and blackout risk in power grids.

All interested persons are cordially invited.
Gez. Prof. Dr. Alexander Hartmann