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MÜNCHEN

ARNOLD SOMMERFELD
CENTER FOR THEORETICAL PHYSICS



Arnold Sommerfeld Lecture Series

Professor James P. Sethna

Cornell University, USA

Public Lecture:

Crackling Noise

A piece of paper or candy wrapper crackles when it is crumpled. A magnet crackles when you change its magnetization slowly. The earth crackles as the continents slowly drift apart, forming earthquakes. Crackling noise happens when a material, when put under a slowly increasing strain, slips through a series of short, sharp events with an enormous range of sizes. There are many thousands of tiny earthquakes each year, but only a few huge ones. The sizes and shapes of earthquakes show regular patterns that they share with magnets and many other systems. This suggests that there must be a shared scientific explanation. We shall hear about crackling noise and that it is a symptom of a surprising truth: the system behaves the same on small, medium, and large scales.

Tuesday, January 14, 2014, 17:15h, Room B052, Theresienstr. 39, LMU

You are cordially invited to attend the reception following the public lecture on January 14.

Prof. U. Gerland, Prof. J. v. Delft, Prof. E. Frey