



# Sommerfeld Theory Colloquium

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Avalanches

Magnetic domain walls, charge density waves, contact lines, and cracks are all elastic systems, pinned by disorder. Changing an external parameter, they remain stuck before advancing in sudden rapid motion, termed avalanche. After an introduction into the phenomenology, I present work based on the functional renormalization group, which allows to go beyond the usual toy-model description: avalanche-size distributions in any dimension, and the distribution of velocities in an avalanche. These techniques also lead to an exact solution for the decay of 2-dimensional Burgers turbulence.

Wednesday, 2 May 2012, 16:15h, Room A348/349, Theresienstr. 37/III

Prof. E. Frey