

Sommerfeld Theory Colloquium

Wednesday, 29th June 2005
at 11.15 h
room 349, Theresienstr. 37 / III

Prof. Udo Seifert
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Fluctuation theorem, Jarzynski relation and
non-equilibrium entropy:
A coherent approach and (bio)molecular
applications.

The fluctuation theorem on entropy production (1993) and the Jarzynski relation on non-equilibrium work (1997) are exact results for systems driven beyond the linear response regime. I will present a coherent derivation using stochastic dynamics and a generalization involving the notion of a trajectory-dependent entropy. These results will be illustrated with model calculations and recent experiments on single molecules.