

Theoriekolloquium

Am **15. Dezember 2016** um **14.15 Uhr** in **W2 1-143** hält

Herr Prof. Dr. Peter Talkner (Augsburg)

einen Vortrag mit dem Titel

Aspects of quantum work

The intention to generalize the so-called transient fluctuation relations by Jarzynski and Crooks from an originally classical setting to quantum mechanical situations has brought to light that the obvious classical notion of work becomes nontrivial for quantum systems.

In our talk we will give a general introduction to fluctuation theorems which restrict the statistics of work that can be applied to a system by a change of an external parameter such as a time-dependent modulation of an external electric field. In order that these theorems equally apply to classical and quantum systems, an operational definition of work in terms of two projective energy measurements is required in the quantum case.

In the second part of the talk we will discuss what changes when weaker measurement schemes than projective ones are employed and whether one cleverly designed measurement instead of two might not be sufficient.

Interessierte sind herzlich eingeladen.

gez. Prof. Dr. Andreas Engel