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Transient quantum fluctuation fluctuation relations

Prof. Peter Talkner

时间: 9月17日 (星期四) 15:00—16:30

地点: 北京大学物理大楼中212教室

Abstract: Transient fluctuation relations are exact expressions restricting the statistics of work that can be applied to a system by the action of a prescribed force-protocol. We will present an overview about the content of the two prominent transient fluctuation relations, the Jarzynski equality and the Crooks relation, in general, and shall describe in some detail the specific problems when quantum systems are considered. In particular we shall discuss how to determine work performed on a quantum system as well as the role measurements play for determining work..

About speaker: Prof. Talkner has worked for about 40 years mainly in the field of statistical mechanics. He has applied stochastic tools such as Langevin and Fokker-Planck equations for the description of various problems of non-equilibrium statistical mechanics including applications of statistical mechanics tools to the analysis of weather and climate data. Another longstanding interest of his are open quantum systems.

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