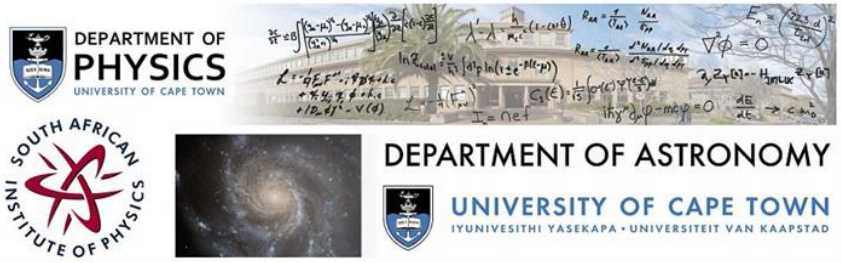

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NON-SPECIALIST LECTURE: Nonequilibrium processes and their fluctuations

Friday, 8 July 2016 09:40 (40 minutes)

Abstract content
   (Max 300 words)
Formatting &
Special chars

This talk will give a brief overview of important problems currently studied in nonequilibrium statistical mechanics related to systems driven in steady states and their fluctuations. One particular problem, which has come to be studied only recently, is the following: When a random system is seen to fluctuate away from its average or most probable behavior, how does it do it? In other words, can we find an effective dynamics explaining how the system produces that fluctuation? This problem, as I will explain, is related to the conditioning of probabilities, the Onsager-Machlup theory of noise-activated transitions, and the notion of statistical ensembles generalized to trajectories of stochastic processes.

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