量子物理学・ナノサイエンス第 227 回セミナー

Possible effects of multiplicative noise on instabilities

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日程　：　4 月 23 日（月）16:00-17:30

場所　：　本館 1 階　H155B　理学院セミナー室

概　要

Close to the onset of an instability, it is expected that fluctuations can play a role. In general, fluctuations act additively (broadly speaking, their effect do not depend on the amplitude of the unstable field) and are responsible for a variety of effects such as the well known anomalous critical exponents of equilibrium phase transition.

In out of equilibrium systems, fluctuations can be multiplicative: their effect vanish when the amplitude of the unstable mode is zero. Several new effects appear. During this seminar I will discuss in particular two topics: what happen to the onset (is it still defined? how to calculate it?) and what happen above onset (focussing on the so-called on-off intermittent regime).

The presented results will be illustrated with examples in the context of instabilities in fluid dynamics and magneto hydrodynamics.

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量子物理学・ナノサイエンス先端研究センター 主催
東京工業大学理学院・物理学系、「ナノサイエンスを拓く量子物理学拠点」 共催

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