

Seminarium Zakładu Fizyki Teoretycznej

Departament Badań Podstawowych
Narodowego Centrum Badań Jądrowych

15 maja 2019 r. (środa), godz.12:15
NCBJ, sala 404, **Pasteura 7**

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„Dynamics of a quantum phase transition: Kibble-Zurek scaling hypothesis”

ABSTRACT:

A system driven adiabatically across a quantum phase transition becomes excited near the quantum critical point according to a quantum version of the Kibble-Zurek mechanism. Its excited state satisfies a scaling hypothesis with a characteristic length-scale and a time-scale that both depend on the transition rate and diverge in the adiabatic limit. This hypothesis was verified by an analytic solution of the quantum Ising chain, numerical simulations of the Bose-Hubbard model, and experiments with ultracold atoms.

Serdecznie zapraszamy,

M. Kowal, W. Piechocki, J. Skalski, L. Szymanowski