物理学术报告
Physics Seminars (biweekly)

Title: **Quantum quench through a topological phase transition**

Speaker: **Ying-Jer Kao**
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Time: **4:00pm, Wednesday, April 22, 2015**

(3:30~4:00pm, Tea, Coffee, and Cookie)

Venue: **Conference Hall 322, Science Building, Tsinghua University**

Abstract

Symmetry protected topological phases are a new class of distinct symmetric phases in the presence of a protecting symmetry. An early example of a nontrivial symmetry protected topological state is the ground state of the spin-1 Heisenberg antiferromagnet--the so-called Haldane phase. The Haldane phase is distinct from the symmetric product state of zero spin projection along the z-axis $|D\rangle=\Prod_i |0\rangle_i$ that is adiabatically connected to the so-called large-D phase. In this work, we explore the imaginary-time evolution of the state $|D\rangle$ after a quantum quench into the Haldane phase and present details of a quantum Monte Carlo method that can easily be extended to studies in higher dimensions.