物理学术报告
Physics Seminars (biweekly)

Title: **Anderson localization of a Majorana fermion**

Speaker: **Prof. Dmitri Ivanov** (*ETH Zurith, Switzerland*)

Time: **3:15pm, Wednesday, Nov.6, 2013**

(2:45~3:15pm, Tea, Coffee, and Cookie)

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

Abstract

In this talk I will review our recent results on Anderson localization in quasi-one-dimensional wires with broken time-reversal symmetry in a variety of geometries: a normal wire, a normal-metal – superconductor interface and a normal-metal -- topological-superconductor interface with a Majorana fermion. We use the supersymmetric nonlinear sigma model to calculate the one- and two-point correlation functions relevant for the localization problem and further interpret our results in terms of Mott hybridization of localized states.

References:

arXiv:0901.1914, arXiv:1111.0339, arXiv:1211.0202, arXiv:1307.0372.