



中心系列讲座 ICQM Weekly Seminar Series

Thermal Fluctuation Effect in High T_c Superconductor



Dingping Li
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Time: 4:00p.m, May. 30, 2012 (Wednesday)

时间: 2012年5月30日 (周三) 下午4:00

Venue: Room 607, Conference Room A, Science Building 5

地点: 理科五号楼607会议室

Abstract

We will review the theory of the thermal fluctuation in high T_c superconductor effect based Ginzburg-Landau approach. Vortex phase diagrams are studied. Various phases and the phase transition lines, for example, melting line, glass phase transition line are obtained. On the other hand, the time dependent Ginzburg-Landau theory will be used to study the transport properties. Our theoretical results are quantitatively in agreement with the experimental data.

About the speaker

Professor Dingping Li got his bachelor and master's degrees from the Department of Physics, Tsinghua University in 1986 and 1989 respectively and later obtained his doctor's degree in the International School for Advanced Studies of Trieste, Italy in 1993. Now he is a professor in the Department of Physics of Peking University.

Prof. Li's research interests mainly focus on these areas such as high temperature superconductors, especially vortex physics in high T_c superconductors; fractional quantum hall effect; low dimensional field theory, in particular fractional statistics, conformal field theory in critical phenomena, as well as general field theory.

His main publications include "The Ginzburg-Landau Theory of Type II superconductors in magnetic field," a joint research with Prof. Rosenstein, which was published in RMP (Reviews of Modern Physics), one of the most prestigious magazine in Physics.