

Topological versus Landau-like phase transitions



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大师讲堂
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北京大学物理学院西楼2
层西202报告厅

— Time

10:00 am, October 29,
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— Venue

W202, School of Physics,
Peking University

All are welcome.

Abstract: The study of continuous phase transition between phases with different symmetries revolutionized the way we think of many-body physics. In the last few years it is realized that phase transition can occur between phases with the SAME symmetry but differ in a more subtle, topological, way. In this talk I ask what is the difference (if any) between the conventional symmetry breaking phase transitions and the new topological phase transitions.

About the speaker: Professor Dung-Hai Lee received his B.S. degree from the National Tsinghua University of Taiwan. He went to the Massachusetts Institute of Technology in 1977 for graduate studies, and received his Ph.D. in physics in 1982. After staying at M.I.T. for another two years, he joined the IBM T.J. Watson Research Center in 1984. Professor Lee spent eleven years at IBM. He joined Berkeley in 1994 and was named Miller Professor in 1999. Professor Lee's main research interest lies in strongly correlated many-particle systems. He has made significant contributions to the fields of high-transition temperature superconductivity, photoisomerization, the fractional quantum Hall effect, superconducting nano wires, graphene, KxC60 monolayers, strongly correlated one dimensional systems, time-reversal symmetry breaking superconductors, frustrated spin models, carbon nano tubes, transport of electron in strong magnetic fields and disorder media, and the physics of novel superconductors and topological states in condensed matter systems. Professor Lee is Elected Fellow of American Physical Society. His achievements have been recognized by many awards, such as IBM outstanding Research Award. Professor Lee is now National '1000 Talent Plan' Adjunct Professor at Peking University, Adjunct Changjiang Chair professor at Tshinghua University, and Adjunct Member of the 'National 2011 Plan' Collaborative Innovation Center of Quantum Matter.