北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Seminar

Status in Relation to Experiments for a Complete Theory of High Temperature Superconductors

Chandra Varma

Visiting Professor – University of California, Berkeley

Time: 10:00 am, Aug. 14, 2024 (Wednesday)

时间：2024年8月14日 （周三）上午10:00

Venue: Room w563, Physics Building, Peking University

地点：北京大学物理楼，西563会议室

Abstract

I will summarize what is understood and proved beyond doubt in experiments in problems of the normal and superconducting state of cuprates. I will follow this with proposal to understand “Fermi-arcs” and magneto-oscillations in cuprates through topological decorations of loop-current order which has not been proven in experiments.

About the speaker

Chandra Varma is a theoretical condensed matter physicist. He worked for 35 years in the theoretical physics department at Bell Laboratories, including 4 years as department head and 20 years as a distinguished member of staff. He also spent 14 years as Chancellor’s Distinguished Professor at the University of California, Riverside. Varma is currently Emeritus Distinguished Professor at Riverside and visiting Professor at Berkeley. He has made the leading contribution to all the important fields of condensed matter physics that he has worked on.

He is a member of the American Physical Society, an American Association for the Advancement of Science Fellow, a Fellow of World Academy of Sciences, Lorentz Professor 2000, and Professeur visitant, College de France 1997. He was also a Miller Professor at Berkeley in 2010. Varma was awarded the Bardeen prize in 2012 for his prediction of anisotropic superconductivity and theory of its promotion by antiferromagnetic fluctuations.