



NYU-ECNU Institute of Mathematical Sciences at NYU Shanghai

LITERATURE AND WORKING SEMINAR

Topic: Eigenvalue Problem of Magnetic Schrodinger Operators

Speaker: Prof. Xingbin Pan

Time: 14:30-16:30, 17 October 2013

Venue: Room 371, Geography Building, 3663 Zhongshan Road North,
Shanghai (华东师范大学中山北路校区, 地理楼 371 室)

ABSTRACT OF THE TALK

Eigenvalue problems of magnetic Schrodinger operators have played important roles in the mathematical theory of superconductivity, liquid crystals and Bose-Einstein condensates. In this talk we present basic estimates of the lowest eigenvalue for large magnetic field, and give some applications of these estimates in the theory of nucleation of superconductivity and surface superconductivity, and in the theory of phase transition of liquid crystals from nematic phase to smectic phase.

BIOGRAPHY

Xingbin Pan is a professor of mathematics at ECNU. His current interests include partial differential equations and calculus of variations, and mathematical theory of superconductors and liquid crystals.