

Notre Dame **Science**
Department of Physics

ELECTRON-HOLE SYMMETRY IN SPIN EXCITATIONS OF FeAs-BASED SUPERCONDUCTORS

RESCHEDULED—Special Colloquium Date

Prof. Pengcheng Dai
University of Tennessee – Knoxville
Monday, February 21, 2011
4:00 p.m. NSH 118
(Refreshments at 3:30 p.m. NSH 202)

In this colloquium, I describe the most recent progress in the field of iron-based superconductors including our efforts to establish a strong materials synthesis laboratory. Using neutron as a probe, we study the spin wave excitations in BaFe_2As_2 and its electron/hole doping evolution of the spin excitations. While some features of spin excitations in doped materials can be described as band effect, there are also local moments in these materials. Our results suggest that spin excitations are the most promising candidate for electron pairing and superconductivity in iron-based superconductors.

Host: Prof. Morten Eskildsen

Colloquium

All interested
persons are
cordially
invited to
attend.