HIGH ENERGY PHYSICS

THE UNIVERSITY OF CHICAGO
ENRICO FERMI INSTITUTE

The Monday HEP Seminar

PRESENTS:

"ν Measurements, New Physics: Short and Long Baseline ν_e appearance"

Bonnie Fleming
Yale University

2012 was a banner year for particle physics with both the Higgs discovery and the measurement of θ_{13}, the last of the unknown mixing angles in the PMNS matrix. With a large value of θ_{13}, the neutrino community is poised to measure long baseline neutrino oscillations and look for CP violation in the neutrino sector. At short baselines, puzzles remain with hints from a number of experiments worldwide suggesting new physics. Long and short baseline accelerator neutrino experiments alike are developing precision Liquid Argon Time Projection Chamber detectors to do these _e appearance searches. The US neutrino program, envisioned and in progress, to develop this technology and address these questions, will be described.

Monday, April 28, 2014
4:15PM in LASR 162

If any assistance is needed, call Aspasia Sotir-Plutis in advance at (773) 702-8113