Monday – November 9, 2015
4:00 PM
Kolker Room (26-414)
(refreshments served at 3:30 PM)

First Neutrino Oscillation Results from NOvA

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Abstract: Non-zero neutrino mass brings with it new complexity in the neutrino sector, and major questions surrounding neutrino masses and mixing remain unanswered. Among the unknowns are the ordering of the neutrino masses, the presence (or absence) of complex phases in the PMNS matrix, and key details of flavor mixing. NOvA, a long-baseline neutrino oscillation experiment sited along Fermilab's NuMI neutrino beam, will address these questions and much more. NOvA began full operations with its 14-kton Far Detector in Ash River, Minnesota, last year and will continue through this decade. After a brief review of the physics context and experimental setup, I will discuss first oscillation results from NOvA and the physics program of NOvA more broadly.