Physics Colloquium

Thursday, Sep 29th at 3:30 pm in SC 234

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Fermilab Neutrino Program

The experimental observation that neutrinos will undergo flavor change, known as neutrino oscillations, stands as one of the most important discoveries in particle physics in the last twenty years. This fact is made even more evident by the recent award of the Nobel Prize in Physics in 2002 for ``pioneering contributions to astrophysics, in particular for the detection of cosmic neutrinos" and again in 2015 for ``for the discovery of neutrino oscillations, which shows that neutrinos have mass". A new era of precision measurements has begun in order to address many of the outstanding questions as to the true nature of neutrinos and neutrino oscillations. This talk will highlight the work being done to utilize fine-grained, high resolution neutrino detectors known as liquid argon time projection chambers (LArTPC's), recent analyses on neutrino data using these detectors, and the future of the Fermilab Neutrino Program.

Refreshments at 3:00 pm in SC 103