Yale Wright Laboratory

Upcoming Joint WIDG/NPA Seminar

Tuesday, December 12, 2017

12:00PM

Wright Lab/WLC-108

Phillip Barbeau
Duke University

In-COHERENT: What you can do with the World's Smallest Neutrino Detector

The coherent elastic scattering of neutrinos off nuclei was first predicted 43 years ago with the realization of the neutral weak current. The predicted cross-section is the largest of any known neutrino interactions; however, the process has remained undetected until recently due to the daunting experimental challenges. I will report briefly on the first observation of this process, newly announced by the COHERENT collaboration—an effort which has major contributions from a large team at Duke and the Triangle Universities Nuclear Laboratory.

I will focus this talk on the broad array of questions that these neutrino detectors (both coherent and in-coherent) at a new neutrino facility such as the Spallation Neutron Source, can play in answering important questions in particle physics.

Lunch will be provided starting at 11:45 outside WLC-108 conference room.

RSVP required: https://goo.gl/forms/WLHCunrir1haboYg1

Host: Karsten Heeger

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