

Progress Made with the Double Chooz Time Projection Chamber (DCTPC) Neutron Detector

Monday, 8 June 2015 14:00 (15 minutes)

DCTPC detects fast neutron events at the Double Chooz reactor-based neutrino oscillation experiment in France. Understanding neutron background as a function of energy and depth is relevant for multiple experiments around the world, including those trying to measure dark matter, low energy neutrino, and neutrinoless double beta decay. DCTPC allows us to produce a three dimensional image of a neutron-induced nuclear recoil with calorimetric and directional information. I will give an overview of how DCTPC detects neutrons, present the results from DCTPC at Double Chooz, and discuss the future of DCTPC.

Is this an abstract for a New Perspectives presentation?

Users meeting poster

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Session Classification: Session 3 - Reactor Neutrinos, and More!