Charged Current Quasi-Elastic Scattering at MINERvA

Thursday, 15 August 2013 10:30 (25 minutes)

"MINERVA is a neutrino scattering experiment at Fermilab that studies the interactions of muon neutrinos and antineutrinos with various nuclear targets composed of plastic scintillator and a suite of nuclear targets composed of helium, carbon, iron, lead and water placed upstream of the active region. Minerva was designed to provide input support for neutrino oscillation experiments and as a pure weak probe of the nuclear medium. Minerva recently released first results related to muon neutrino and antineutrino quasi-elastic scattering (http://arxiv.org/abs/1305.2234 and http://arxiv.org/abs/1305.2243). These results, which will be described in this talk, shed light on the effect of the nuclear medium on both the muon kinematics and the energy deposited near the interaction vertex in quasi-elastic interactions."

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