

CU Physics Department Particle Seminar

Wednesday, March 10, 2010 831 Pupin Hall 2:30 PM

First Measurement of Muon Neutrino Charged Current Quasielastic (CCQE) Double Differential Cross Section

Using high-statistics MiniBooNE CCQE data, the muon-neutrino CCQE differential cross section on carbon is measured. This is the first measurement for the double differential cross section in CCQE interaction, and is the most complete information one can obtain from muon-kinematics-based CCQE cross section measurements. Our measurement can be used to study nuclear effects in neutrino interactions, which is critical input for future long baseline neutrino oscillation experiments.



Teppei Katori, Massachusetts Institute of Technology