



High Energy Physics Lunch Seminar

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“Neutrino oscillation results from the T2K experiment”

Host: Zelimir Djurcic

March 21, 2018 – 12:00 p.m.-1:00p.m. Building 362/F-108

Abstract:

T2K is a long-baseline neutrino experiment, aiming at precise measurements of neutrino oscillation parameters, including the mixing angle θ_{23} and CP violation phase. T2K uses a beam produced in J-PARC in Japan that can provide both muon neutrinos and anti-neutrinos. An off-axis near detector complex has been built at a distance of 280 m from the proton target in order to measure the un-oscillated neutrino/anti-neutrino spectra. Then those spectra are compared to the oscillated measurements in the Super-Kamiokande detector, which is a 50 kton water detector at a distance of 295 km from the beam. This comparison gives the oscillation parameter information. In this talk, the oscillation results with data runs from 2010 to 2017, which consists of 14.7×10^{20} accumulated POT in neutrino mode and 7.6×10^{20} POT in anti-neutrino mode will be presented. It is the first time that T2K announced CP-conservation excluded at 90% C.L.

HEP Lunch seminar info:

Please use the doodle poll to sign-up for lunch at

<https://doodle.com/poll/iaaa3t2g2hugfzk5>

Chicken Sandwich \$8, Sub Sandwich \$9, Salad \$7, Slice of Pizza- \$5 (all include coffee).
Coffee 25¢. Pop or Water 75¢.

The HEP Lunch Seminar Schedule can be viewed at:

<https://indico.hep.anl.gov/indico/categoryDisplay.py?categId=5>