PHYSICS AND ASTRONOMY

SEMINAR

Prof. Hirohisa A. Tanaka

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"The Latest on Neutrino Oscillations from T2K and NOvA"

Abstract

The study of neutrino oscillations has made steady progress since their discovery more than twenty years ago, which led to the conclusions that neutrinos have mass, thereby opening a portal to new explorations of neutrinos and their role in fundamental physics and the universe. We know now that the three neutrinos fully mix to allow the potential for a CP-violating phase that would neutrinos to oscillate differently from antineutrinos. There is also the possibility to resolve the current degeneracy between two configurations of the mass states. Finally, while current measurements show an interesting values for the mixing parameters, the Standard Model makes no predictions for them apart from unitarity. In this talk, I will discuss the current status of measurements, primarily from the standpoint of two accelerator-based experiments, T2K and NOvA, and future prospects.

Monday, October7, 2019
10:00 a.m.
Clearihue Building
Room D130