Kendall Mahn – Colloquium Seminar – October 17, 2024
Michigan State University

Title: You're sending particles across a country? The Tokai to Kamioka experiment

Abstract:
Neutrinos are a tiny subatomic particle with surprising properties under active study. In particular, neutrinos oscillate, that is, they convert from one type of neutrino to another, is a surprising phenomenon under active study. The origin of neutrino mass is important for astrophysics, cosmology and particle physics, and many open questions surrounding neutrino oscillation exist. The Tokai-to-Kamioka (T2K) neutrino oscillation experiment sends a beam of muon flavor neutrinos or antineutrinos 295km across Japan. This colloquium will talk about the wonderful world of neutrinos, the surprising landscape of neutrino oscillation, through the lens of recent activities on T2K, and toward the future, global neutrino exploration of neutrinos.