

Seminarium Szkoły Doktorskiej NCBJ

**Thursday, 19 January, 9:15
room 207, Pasteura 7**

**<https://www.gotomeet.me/NCBJmeetings/phd-seminar>
<https://events.ncbj.gov.pl/e/PhDSeminar2223>**

Speaker:

Yashwanth Prabhu (Szkoła Doktorska NCBJ)

Title:

Estimating detector systematics at T2K's far detector: A neutrino oscillation adventure

Abstract:

T2K is a long-baseline neutrino experiment that measures neutrino oscillations. Oscillation of the muon (anti)neutrino beam to electron (anti)neutrinos is sensitive to the leptonic CP violating phase. In this talk, I will discuss the addition of a new electron neutrino signal sample at T2K's far detector, which can improve T2K's sensitivity to the CP-violating phase. I will also talk about how the systematic errors at T2K's far detector are estimated using Markov Chain Monte Carlo techniques, along with some outlook to future studies.