**Seminarium Szkoły Doktorskiej NCBJ**

**Thursday, 19 January, 9:15**

**room 207, Pasteura 7**[**https://www.gotomeet.me/NCBJmeetings/phd-seminar**](https://www.gotomeet.me/NCBJmeetings/phd-seminar)

[**https://events.ncbj.gov.pl/e/PhDSeminar2223**](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.