

## **Seminarium Studium Doktoranckiego NCBJ**

**Thursday, 6 May, 9:00**

**<https://www.gotomeet.me/NCBJmeetings/phd-seminar>**

**Speaker:**

**Grzegorz Żarnecki (Szkola Doktorska NCBJ)**

**Title:**

**Muon antineutrino single charged pion production cross-section measurement.**

**Abstract:**

The goal of the presented analysis is the measurement of the muon antineutrino single charged pion production interactions on CH in the T2K near detector ND280. This interaction mode is the second largest at T2K energies and studies are ongoing to include such events in T2K oscillation analyses. For this reason, a more detailed understanding of this interaction channel using near detector data becomes vital. The measurement will be a double differential cross-section in lepton kinematics and will be extracted using a binned likelihood fit. The event selection strategy developed for this analysis along with the validation studies performed to check the analysis robustness are discussed in this presentation.