



Poster session 4 – Friday 8 July

P4.025 Measurement of electron (anti-)neutrinos at the T2K near detector

G Christodoulou¹, N McCauley¹ and S King²

¹University of Liverpool, UK, ²Queen Mary University of London, UK

on behalf of T2K Collaboration

The intrinsic electron neutrino contamination of the T2K neutrino beam provides the single largest background in the measurement of electron neutrino appearance at Super-Kamiokande. These electron neutrinos can be measured directly in the T2K near detector ND280. With the transition to antineutrino running the selection of both ν_{e} and $\bar{\nu}_{e}$ is important. Measurements of the intrinsic electron (anti-)neutrino backgrounds from both neutrino and antineutrino running will be presented, with details on the event selection and rejection of the large background of muons, photons, protons and pions. In addition these events allow measurements of electron neutrino and antineutrino cross sections to be made; prospects for these measurements will be presented.