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Poster session Submission of Abstract

Submitter: Pupilli Fabio, INFN – Sezione di Padova, fabio.pupilli@pd.infn.it

Author: Pupilli Fabio (on behalf of the ENUBET Collaboration)

Title of the poster: Enabling high precision flux measurements in conventional

neutrino beams: the ENUBET project

Abstract text:

The main limiting factor for the precise determination of absolute neutrino cross sections comes from the uncertainties in the initial neutrino flux. The ERC granted ENUBET project aims at developing the technologies to reduce by a factor ~10 these systematics, allowing measuring the ν_e (and anti- ν_e) cross section with a 1% precision, in the region of interest for future oscillation experiments looking for CP violation. This goal is accomplished by monitoring in an instrumented decay tunnel the high angle positron produced in K_{e3} decays of charged kaons, in a sign and momentum selected narrow band beam. We will report the experimental results on prototypes (shashlik calorimeters with embedded SiPMs) obtained at the CERN-PS test-beam and the progress in the simulation of the positron tagger.

Summary:

 $\label{eq:coss} \begin{tabular}{l} Neutrino-High-Precision-Neutrino-Beams-Tagged-Neutrino-Beams-Cross-Sections-Calorimetry-SiPM \end{tabular}$