Abstract Submitted for the APR18 Meeting of The American Physical Society

Improving the Booster Neutrino Beam Flux Prediction and Systematics in MicroBooNE GRAY YARBROUGH, Fermilab, MICROBOONE COLLABORATION — The global neutrino physics program is currently focused on studying neutrino oscillations with the intent to understand many important questions about the universe such as the matter-antimatter asymmetry. Oscillation measurements require a thorough understanding of neutrino beams and the interactions they induce in order to accurately reconstruct the incoming neutrino energy. Uncertainties in the neutrino beam flux currently form a dominant systematic for both cross section and oscillation measurements of neutrinos. This talk will discuss the work done towards improving the Booster Neutrino Beam (BNB) flux prediction and related systematics for the MicroBooNE experiment that is currently collecting data at Fermilab.

Gray Yarbrough Fermilab

Date submitted: 11 Jan 2018 Electronic form version 1.4