

Abstract Submitted  
for the APR14 Meeting of  
The American Physical Society

**Low- $\nu$  Flux and Total Charged-current Cross Sections in MINERvA** LU REN, Univ of Pittsburgh, MINERVA COLLABORATION — The MINERvA experiment measures neutrino and antineutrino interaction cross sections on carbon and other nuclei. Cross section measurements require accurate knowledge of the incident neutrino flux. The “low- $\nu$ ” flux technique uses a standard-candle cross section for events with low energy transfer to the hadronic system to determine the incident flux. MINERvA will use low- $\nu$  fluxes for neutrinos and antineutrinos to tune production models used in beam simulations and to extract total cross sections as a function of energy. We present the low- $\nu$  flux technique adapted for the MINERvA data samples and preliminary results for the extracted low- $\nu$  fluxes in MINERvA. MINERvA will extend the range of antineutrino charged-current cross section measurements to lower energies which are of interest to future accelerator oscillation experiments.

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Date submitted: 10 Jan 2014

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