



Contribution ID: 61

Type: **not specified**

High Statistics Inclusive Cross Section Measurements from MINERvA

Tuesday, March 16, 2021 11:15 AM (10 minutes)

In an era of precision neutrino oscillation experiments using improved technology that generate large statistical samples, it is important to understand the properties of neutrino interactions on nuclei over a large volume of kinematic phase space. The MINERvA experiment, which utilizes the NuMI neutrino beam at Fermilab, measures cross sections across multiple materials ranging from helium to lead, and is able to compare results to models of these neutrino interactions. I will present a new double differential cross section measurement of charged current muon-neutrino interactions in hydrocarbon, in variables of the longitudinal and transverse momenta of the muon, with a high statistics sample composed of over 4 million events. This result is advantageous for comparisons with theorists since it is done in well-defined easily measurable variables, and is able to highlight areas in which there are model deficiencies.

Primary author: FILKINS, Amy (William & Mary)

Presenter: FILKINS, Amy (William & Mary)

Session Classification: Flash Talks