Contribution ID: **372**   Type: **Oral**

Cross-checks for the particle-identification algorithm in nue analysis by the means of muon removal procedure at the NOvA experiment

Wednesday, 17 April 2019 16:30 (15 minutes)

Neural networks become a wide-spread way to identify particles in the high energy experiments and neutrino physics follows this tendency. Primarily goal of the NOvA experiment is neutrino oscillation studies which require good identification for the nue and numu interactions. For this purpose, NOvA developed a convolutional neural network based particle identification algorithm CVN.

We check the selection efficiency of this procedure in nue analysis with muon removal algorithm. By creating a control sample of "electron neutrino" events we can monitor any possible differences in the data and Monte-Carlo behavior.

This talk will be devoted to the description of this procedure for NOvA's nue analysis.

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Session Classification: High energy physics

Track Classification: High Energy Physics