Contribution ID: **46** Type: **not specified**

Image Based Reconstruction and Deep Learning in MicroBooNE

Wednesday 18 September 2019 10:15 (20 minutes)

Operating a 170 ton LArTPC 470 meters from the Booster Neutrino Beam (BNB) at Fermilab, MicroBooNE is applying parallel analysis paths towards the excess of low energy νe-like (LEE) events observed by MiniBooNE. Having been recorded with a high resolution, LArTPC data translated into fine 2D images is ideal for applying computer vision and machine learning techniques. MicroBooNE has applied OpenCV, semantic segmentation network (SSNet) and mutli-particle identification (MPID) network to event reconstruction and selection. In this talk, I will present the image based event reconstruction and deep learning tools used in MicroBooNE.

Presenter: AN, Rui (Illinois Institute of Technology)

Session Classification: Talks