Status of New IceCube DeepCore Neutrino Oscillation Analyses
KAYLA LEONARD, University of Wisconsin - Madison, ICECUBE COLLABORATION — The DeepCore sub-array within the IceCube Neutrino Observatory is a densely instrumented region of Antarctic ice designed to observe atmospheric neutrino interactions above 5 GeV, via Cherenkov radiation. At these energies, Earth-crossing muon neutrinos have a high chance of oscillating to tau neutrinos. These oscillations have been previously observed in DeepCore through both muon neutrino disappearance and tau neutrino appearance channels. This talk will present the status of the IceCube Collaborations newest analyses of neutrino oscillation parameters. In addition to several more years of data, these analyses benefit from recent significant efforts in improving background rejection, reconstruction techniques, modeling of systematic uncertainties, particle identification, and much more.