Abstract Submitted
for the APR18 Meeting of
The American Physical Society

Searching for 1+3 Sterile Neutrinos with IceCube TIMOTHY WATSON, BENJAMIN JONES, University of Texas Arlington, ICECUBE COLLABORATION — Located at the South Pole, the IceCube neutrino observatory consists of a gigaton scale ice-Cherenkov neutrino detector instrumented with 5,160 digital optical modules providing sensitivity to neutrino events with energies ranging from the few GeV to several PeV scale. Within this range, IceCube's exceptional sensitivity to the matter-resonant depletion of the anti-muon neutrino flux in atmospheric neutrinos has led to the world-leading limits on the existence of sterile neutrinos consistent with the 3+1 model. Here I present the results of our latest sterile neutrino search applied to the 1+3 hypothesis with 1 year of IC86 data.

Timothy Watson
Univ of Texas, Arlington

Date submitted: 12 Jan 2018 Electronic form version 1.4