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Searching for 1+3 Sterile Neutrinos with IceCube TIMOTHY WATSON, BEN JONES, University of Texas at 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 status of our latest sterile neutrino search applied to the 1+3 hypothesis with 1 year of IC86 data.

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