

# Results from the Search for eV-Sterile Neutrinos with IceCube

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The IceCube neutrino telescope at the South Pole has measured the atmospheric muon neutrino spectrum as a function of zenith angle and energy. We have performed a search for eV-scale sterile neutrinos by looking at distortion in those distributions. Such a sterile neutrino, motivated by the anomalies in short-baseline experiments, is expected to have a significant signature in the  $\bar{\nu}_\mu$  survival probability due to matter induced resonant effects for energies of order 1 TeV. This effect makes this search unique and sensitive to small sterile mixings. In this talk, I will present the results of the IceCube sterile neutrino search using the a one year high energy sample and also our results obtained by looking at deviations of the standard oscillation pattern below 100 GeV from three years of DeepCore data.

## Summary

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