

An Improved Search for Unstable Sterile Neutrinos at IceCube

Saturday 20 July 2024 14:30 (15 minutes)

The existence of sterile neutrinos can lead to a matter-enhanced resonance that results in a unique disappearance signature for Earth-crossing neutrinos, providing a different probe of the short baseline anomalies. Sterile neutrinos have been proposed as an explanation of the tension between appearance and disappearance experiments in the vanilla 3+1 model. IceCube has performed an improved search for eV-scale unstable sterile neutrinos with a high purity sample of up-going muon neutrinos from 500 GeV to 100 TeV using eleven years of data. The results of this analysis will be presented along with the results of the no-decay/stable sterile neutrino analysis.

Alternate track

I read the instructions above

Yes

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Session Classification: Neutrino Physics

Track Classification: 02. Neutrino Physics