

A New Idea for Relic Neutrino Detection

Thursday, May 26, 2022 3:50 PM (23 minutes)

The detection of the cosmic neutrino background (CvB) is an outstanding problem in particle physics and cosmology. We propose a new way to detect CvB via resonant scattering against cosmogenic GZK neutrinos, which leads to an attenuation of the GZK neutrino flux. However, to have any observable effect, we need significant CvB overdensity along the line-of-sight. This might be feasible in certain astrophysical environments and/or if neutrinos have a large self-interaction.

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Session Classification: Neutrino