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Illuminating the dark sector with astrophysical neutrinos [INVITED]

Saturday, 17 February 2018 19:00 (30 minutes)

IceCube's observation of high-energy extra extraterrestrial neutrinos has signalled the dawn of neutrino astronomy. These events carry energies upward of a PeV and are isotropically distributed in the sky, and thus far their origin remains unknown. However, these data contain valuable information in their energy, flavour composition and arrival directions. I will demonstrate how these observables can already be used to learn about new physics, and specifically discuss the case of dark matter-neutrino interactions, which have long been studied in the low-energy limit of cosmology.

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