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Modeling Uncertainties and Future IceCube Constraints on Neutrino Self-Interactions

Tuesday 14 May 2024 14:00 (15 minutes)

Identification of high-energy neutrino point sources by IceCube is exciting for particle phenomenology, as propagation of neutrinos over large distances allows us to test properties that are hard to access. However, beyond-Standard Model effects would often show up as distortions of the energy spectrum, which makes it difficult to distinguish new physics from uncertainties in the source modeling. In this talk, I will present ongoing work to determine how well a future dataset containing multiple point-source observations could simultaneously distinguish some of these effects, and how the analysis can account for this.

Mini Symposia (Invited Talks Only)

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