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Novel Method for Rare Event Detection

Using the Chooz method on segmented detectors has limitations when discussing multiple distributed nonhomogeneous sources, and identification between sources; something that we wish to understand about Earth's core-mantle boundary (CMB). Using our new method of neutrino directionality, we aim to solve these problems by implementing a new mathematical framework in the directional analysis of neutrino sources.

This talk will specifically focus on this method as an alternative to the Chooz method, justify the math behind it, and discuss its applications to geoneutrino sources located in the crust and upper mantle.

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