

Abstract Submitted  
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**Non-Standard Neutrino Interactions in the mu tau sector** WARREN WRIGHT, IRINA MOCIOIU, Pennsylvania State Univ — This research focuses on Non-Standard Interactions and their effects on neutrino oscillations. In particular, we focus on the effects of the parameter  $\epsilon_{\mu\tau}$  on muon neutrino survival probability and the number of muons measured in IceCube's DeepCore detector. These effects are found to be sign asymmetric and an analytic model is presented that predicts points of maximum sign asymmetry. Furthermore, we discuss the implications these sign asymmetric effects have on mass hierarchy determination.

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