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A Possible Explanation For NuTeV's Anomalous Dimuon Events[1]

THOMAS ALEXANDER, ANDREW ALTON — We consider a model where WIMPs interact with neutrinos to produce dimuon events as a possible explanation of the NuTeV anomalous dimuon events. The NuTeV events show limited sensitivity to the mass of the WIMP but they are sensitive the mass difference between the WIMP and a more massive charged particle. While the cross section revealed by this model is unusually large the model naturally accounts for the asymmetry between the muon's momentums as well as other features of the NuTeV events.

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