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Hadronic spectrum of the $\tau^- \to \pi^- \pi^0 \nu$ decay RAHMAT RAHMAT, University of Oregon, BABAR COLLABORATION — We describe a study of the invariant mass spectrum of the hadronic system in the $\tau^- \to \pi^- \pi^0 \nu$ decay, using the BaBar detector at SLAC. We describe how the $\pi^- \pi^0$ spectral function inferred from the invariant mass spectrum can be used as a test of the Conserved Vector Current hypothesis. We also discuss the implications of our study in estimating the hadronic contribution to the muon anomalous magnetic moment.

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