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Search for Lepton-Flavor Violation in Narrow Υ Resonance Decays BENJAMIN HOOBERMAN, UC Berkeley and LBNL, BABAR COLLABORATION — Charged lepton-flavor violating processes are extremely rare in the Standard Model, but they are predicted to occur in several beyond-the-Standard Model theories, including Supersymmetry or models with leptoquarks or compositeness. We present searches for such processes in narrow Υ resonance decays. From a sample of 117 million $\Upsilon(3S)$ decays recorded with the *BABAR* detector, we place upper limits on the branching fractions $\mathcal{B}(\Upsilon(3S) \to e\tau) < 5.0 \times 10^{-6}$ and $\mathcal{B}(\Upsilon(3S) \to \mu\tau) < 4.1 \times 10^{-6}$ at 90% confidence level. These results are used to place lower limits on the mass scale of beyond-the-Standard Model physics contributing to lepton-flavor violating decays of the $\Upsilon(3S)$.

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