

Abstract Submitted
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Searches for New Physics Contributions in the Form of a Charged Higgs Boson ROMULUS GODANG, University of South Alabama, BABAR COLLABORATION — Using a full BABAR data sample of 426/fb, we present the measurements of the ratio $R(D^{(*)}) = \text{BR}(B \text{ to } D^{(*)} \tau \nu) / \text{BR}(B \text{ to } D^{(*)} \ell \nu)$ where ℓ is either electron or muon. We measure $R(D) = 0.440 \pm 0.058 \pm 0.042$ and $R(D^*) = 0.332 \pm 0.024 \pm 0.018$. These ratios exceed the Standard Model predictions by 2.0 sigma and 2.7 sigma, respectively. The results disagree with the Standard Model predictions at the level of 3.4 sigma. These ratios are sensitive to new physics contributions in the form of a charged Higgs boson.

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