

Abstract Submitted  
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**Search For New Physics at the BABAR Experiment**<sup>1</sup> ROMULUS  
GODANG, University of South Alabama, BABAR COLLABORATION — Using a  
full BABAR data sample of 426/fb, we present measurements of  $R(D)$  and  $R(D^*)$   
where  $R(D) = \text{BR}(D \tau \nu) / \text{BR}(D \text{lepton } \nu)$  and  $R(D^*) = \text{BR}(D^* \tau \nu) / \text{BR}(D^* \text{lepton } \nu)$ .  
The lepton is either electron or muon. These ratios of  $R(D)$  and  $R(D^*)$   
exceed the Standard Model predictions by 2.0 sigma and 2.7 sigma, respectively.  
The combined results disagree with the Standard Model prediction at the level of  
3.4 sigma. These ratios are sensitive to New Physics (NP) contributions in the form  
of a charged Higgs Boson.

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