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Search for η_b via exclusive decay mode $\eta_b \to K^0_s K^+\pi^-$ XURONG CHEN, University of South Carolina, BABAR COLLABORATION — We discuss the possibility to search for η_b candidate with 211 fb^{-1} of data collected by the BaBar detector at the PEP-II asymmetric e^+e^- collider at SLAC in the mass range $8.5 < M_{K^0_s K^+\pi^-} < 10.5\,GeV/c^2$ in inclusive $e^+e^- \to \eta_b X$ reactions, where η_b is detected in its $K^0_s K^+\pi^-$ decay mode. The event selection is studied on Monte Carlo samples, and the expected background yield is compared to what is observed in data for $6.5 < M_{K^0_s K^+\pi^-} < 8.5\,GeV/c^2$. A toy Monte Carlo study is performed to establish the sensitivity to the number of signal candidates in the sample, and to estimate the expected upper limit on $\sigma(e^+e^- \to \eta_b X) \times \mathcal{B}(\eta_b \to K^0_s K^+\pi^-)$ that we will be able to set if no signal is detected.

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