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Search for di-muon decays of a light CP-odd Higgs boson produced in radiative decays of the $\Upsilon(1S)$ at BABAR VINDHYAWASINI PRASAD, IIT Guwahati, BABAR COLLABORATION — We search for di-muon decays of a light CP-odd Higgs boson (A^0) in the radiative decays of $\Upsilon(1S)$ mesons. The A^0 appears in the next-to-minimal supersymmetric extension of the Standard Model. The data sample contains (92.8 ± 0.8) million $\Upsilon(2S)$ and (116.8 ± 1.0) million $\Upsilon(3S)$ events collected by the BaBar detector at the PEP-II asymmetric B Factory at the SLAC National Accelerator Laboratory. An $\Upsilon(1S)$ sample is selected by tagging the pion pair in the $\Upsilon(2S, 3S) \rightarrow \pi^+\pi^-\Upsilon(1S)$ transitions.

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