

Abstract Submitted
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$B^0 \rightarrow K_S^0 K_S^0$ **branching fraction and direct CP asymmetry** JED
BIESIADA, Princeton, BABAR COLLABORATION — We present the first evidence for the penguin-dominated decay $B^0 \rightarrow K^0 \bar{K}^0$ using a data sample of approximately 227 million $\Upsilon(4S) \rightarrow B\bar{B}$ pairs collected by the BaBar detector at the PEP-II asymmetric-energy B Factory at SLAC. We reconstruct the neutral kaons in the channel $K^0 \rightarrow K_S^0 \rightarrow \pi^+ \pi^-$, and we use a maximum likelihood fit incorporating kinematic and event-shape information to extract the signal yield.

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