

Search for an Axion-Like Particle in B meson decays at BABAR

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Axion-like particles (ALPs) are predicted in many extensions of the Standard Model, and their masses can naturally be well below the electroweak scale. In the presence of couplings to electroweak bosons, these particles could be emitted in flavor-changing B meson decays. We present a search for an axion-like particle (ALP), a , produced in the Flavor-Changing Neutral-Current decay $B \rightarrow Ka$, with $a \rightarrow \gamma\gamma$. This search, performed using a dataset of about 470 million $B\bar{B}$ pairs collected by the *BABAR* experiment at the PEP-II e^+e^- collider, is sensitive to ALP masses below 4.78 GeV.

Category

talk

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