

Search for dark sector at BESIII

The BESIII experiment is a symmetric e^+e^- collider operating at c.m. energy from 2.0 to 4.95 GeV. With the world's largest threshold production data set of J/Ψ (10 billion), $\Psi(3686)$ (2.6 billion), and $20fb^{-1}$ of D meson pairs from $\Psi(3770)$ decay, we are able to search for various dark sectors produced in e^+e^- annihilation and meson decay processes. In this talk, we report the search for K_s^0 invisible decay and $\Sigma \rightarrow p + invisible$, search for Axion-like particle with J/Ψ data, search for Z' invisible decay via $J/\Psi \rightarrow \mu^+\mu^-X$ and search for massless dark photon through the charm FCNC process $D^0 \rightarrow \gamma$ and $D^0 \gamma$.

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