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Measurement of $\gamma\gamma \to p\bar{p}$ production at Belle

Belle Collaboration

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Abstract

A high precision study of the process $\gamma\gamma \to p\bar{p}$ has been performed using a data sample of 89 fb^{-1} collected with the Belle detector at the KEKB e^+e^- collider. The cross section of $p\bar{p}$ production has been measured at two-photon center-of-mass (c.m.) energies between 2.025 and 4.0 GeV and in the c.m. angular range of $|\cos\theta^*| < 0.6$. Production of $\gamma\gamma \to \eta_c \to p\bar{p}$ is observed and the product of the two-photon width of the η_c and its branching ratio to $p\bar{p}$ is determined.