

Measurement of transverse lambda polarization in quasi-real photoproduction at HERMES

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Transverse Lambda and Lambda-bar polarization produced inclusively in quasi-real photon-nucleon scattering have been studied in the HERMES experiment using a 27.6 GeV positron beam incident on hydrogen and deuterium gas targets. The average transverse polarizations were found to be $P^{\Lambda}_n = 0.078 \pm 0.006(\text{stat}) \pm 0.012(\text{syst})$ and $P^{\bar{\Lambda}}_n = -0.025 \pm 0.015(\text{stat}) \pm 0.018(\text{syst})$ for Lambda and barLambda, respectively. The dependence of P^{Λ}_n on the transverse and longitudinal momenta of the Lambda hyperon has been studied.

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