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Title:	Azimuthal asymmetries of back-to-back $\pi^\pm - (\pi^0, \eta, \pi^\pm)$ pairs in e^+e^- annihilation
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)
Keywords:	Azimuthal Relative momentum Mass energy
Issue Date:	2019
Publisher:	APS Physics
Citation:	Physical Review D, 100(9).
Abstract:	This work reports the first observation of azimuthal asymmetries around the thrust axis in e^+e^- annihilation of pairs of back-to-back charged pions in one hemisphere, and π^0 and η mesons in the opposite hemisphere. These results are complemented by a new analysis of pairs of back-to-back charged pions. The π^0 and η asymmetries rise with the relative momentum z of the detected hadrons as well as with the transverse momentum with respect to the thrust axis. These asymmetries are sensitive to the Collins fragmentation function H_\perp^1 and provide complementary information to previous measurements with charged pions and kaons in the final state. In particular, the η final states will provide additional information on the flavor structure of H_\perp^1 . This is the first measurement of the explicit transverse-momentum dependence of the Collins fragmentation function from Belle data. It uses a dataset of 980.4 fb^{-1} collected by the Belle experiment at or near a center-of-mass energy of 10.58 GeV.
Description:	Only IISERM authors are available in the record.
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