TMDe2015 - A path towards TMD extraction



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Collins asymmetries in e+e- annihilation

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Inclusive hadron production cross section and angular distributions in e^+e^- collisions shed light on fundamental questions of hadronization and fragmentation processes.

We present measurements of the so called Collins azimuthal asymmetries in inclusive production of hadron pairs in $e^+e^- \to h_1h_2X$ annihilation process, where the two hadrons are produced in opposite hemispheres.

In particular, we show BaBar preliminary results for KK, and $K\pi$ hadron pair combinations, as well as the Collins asymmetries for pion pairs.

We also report the preliminary results from the BESIII experiment, which studies pion pairs azimuthal asymmetries using a data set collected at the center-of-mass energy $\sqrt{s}=3.65$ GeV.

The comparison between asymmetries measured at B factories (\sqrt{s} 10.6 GeV) and those measured at BESIII can be used as a tool to understand the evolution of the Collins fragmentation function.

Session

5: TMD fragmentation functions in e+e- and SIDIS processes

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