PANIC2021 Conference



Contribution ID: 267

Type: Talk

Extraction of the worm-gear TMD g_{1T} from COMPASS, HERMES and JLab data on semi-inclusive DIS

Wednesday 8 September 2021 13:45 (15 minutes)

We present the first-ever QCD analysis of the semi-inclusive DIS $A_{LT}^{cos(\phi_h - \phi_S)}$ data using Monte Carlo techniques to extract the worm-gear TMD g_{1T} . The relevant data are available from COMPASS, HERMES and JLab. We compare our results for g_{1T} with different theoretical approaches, including the large- N_c approximation, the Wandzura-Wilczek-type approximation, and lattice QCD.

Primary authors: BHATTACHARYA, Shohini (Temple University); KANG, Zhongbo (UCLA); METZ, Andreas (Temple University); PENN, Gregory; PITONYAK, Daniel (Lebanon Valley College)

Presenter: BHATTACHARYA, Shohini (Temple University)

Session Classification: QCD, spin physics and chiral dynamics

Track Classification: QCD, spin physics and chiral dynamics