EPIC SIDIS Working Group

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Wiki of the SIDIS PWG: https://wiki.bnl.gov/EPIC/index.php?title=SIDIS

→ Up to date
→ Contains all important information

Detector benchmarks:

- (SI)DIS resolutions   (x_B, Q^2, z, P_T)
- PID quality (e/π K/π separation)

Physics benchmarks:

- A_{LL} measurements → Sea-quark helicity PDFs

- Unpolarized cross sections → Spin-independent TMD PDFs/FFs

- Sivers/Collins asymmetries → Sivers TMD, Collins FF

- Dihadron asymmetry → Transversity and tensor charge via collinear dihadron FF

- Back-to-back di-hadron asymmetries → Saturation

- Lambda Polarisation → Polarized FFs

Details on the benchmark physics channels can be found here:

https://indico.bnl.gov/event/17621/contributions/70630/subcontributions/2135/attachments/45495/76765/2023_01_11_ePIC_SIDIS.pdf

https://indico.bnl.gov/event/15342/contributions/65968/attachments/42422/71057/WG_SIDIS_EICUGJuly22.pdf