

Inclusive PWG update

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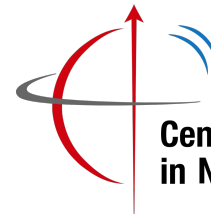
PAC Meeting, 04/14/2026



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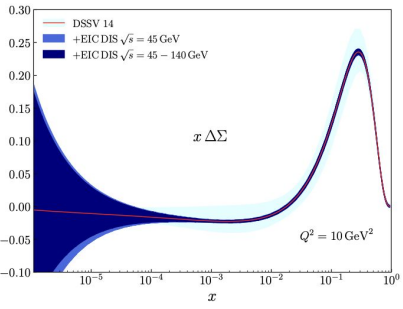
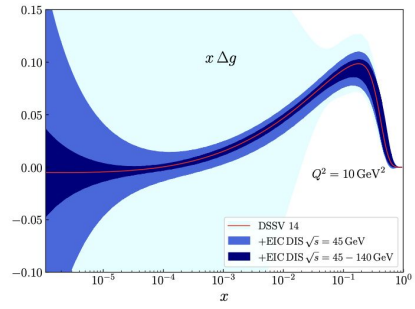
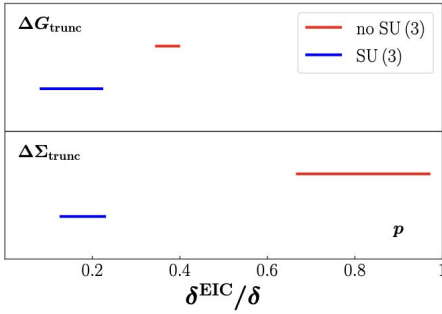
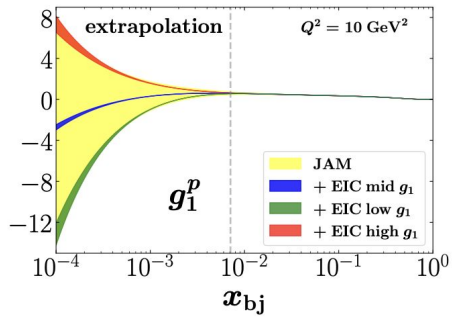


Center for Frontiers
in Nuclear Science

Update on ES impact studies



- A1 impact:
 - Working with JAM group to reproduce plots in yellow report
 - Contacted Ignacio Sanjuan (DSSV group); he is on leave and not available before June
 - Will likely take > 1 month

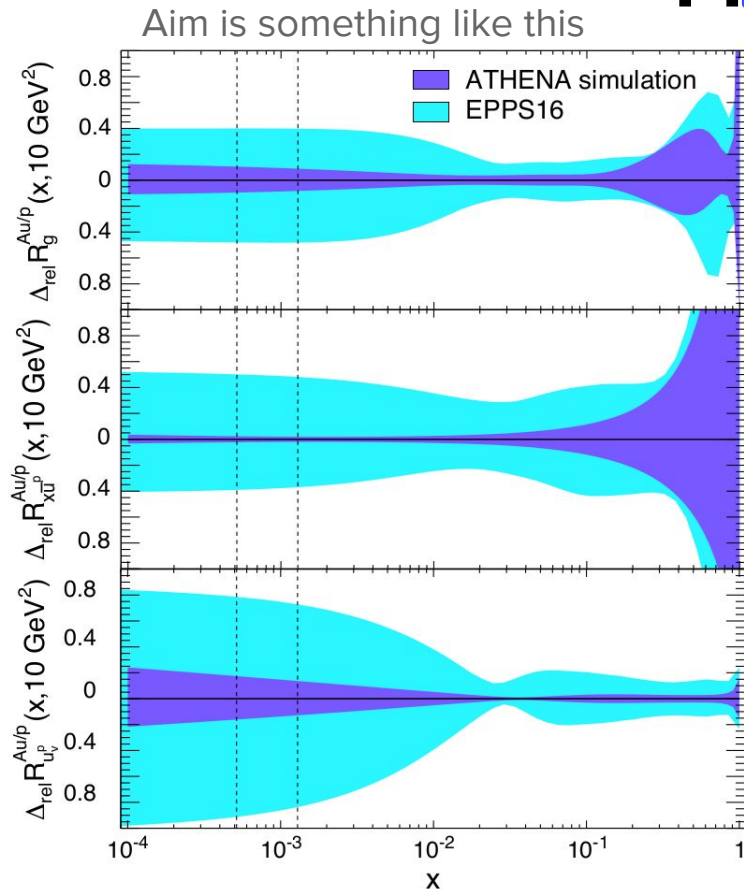


Example plots in YR

Update on ES impact studies



- nPDFs
 - Previous analysis code for eA cross sections/structure functions exists -> being updated
 - Processing eRu and eD that have been produced so far
 - **Waiting for March campaign simulations of eAu and ep at early science energies**
 - Will provide grids (eRu, eAu, eD, ep) to interested groups for impact studies
 - Pia, Shujie (for CJ), Peter (nCTEQ?), others?
 - Benchmarked kinematic resolutions to check binning. Considering possible degradations in systematics estimates for eA compared to ep -> Radiative corrections?
 - ~1 week to make grids+plots after simulations finish. impact plots depend on fitters -> this has historically been quick (but don't want to assume)



Roadmap and status update for group publication



- Draft created with existing contents from ESR appendix

- Section 2

- Many plots existed, but more work is needed to complete the studies
- Optimizing eID performance
- Waiting for march campaign files for pi-BG study
- Will need to request more simulations for Beam BG study
 - $Q^2 > 0$ GeV² at realistic rate
 - $Q^2 > 100$ GeV² mixed with BG
- Need more studies for HFS reconstruction

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Roadmap and status update for group publication



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- Section 3

- Will update draft based on feedback from Physics Readiness workshop
- Remaining work are mostly fittings. Are analysis notes required?
- Xiaoqiao's group (UVA) is working on Bjorken sum and α_s extraction from sum
- Possibly 2/3 physics forum presentations in summer (nPDFs, Bjorken sum, CC cross section ..)

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