

# DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Parallel talk**

## Impacts on the pion PDFs using the Sullivan process in future facilities

*Thursday, 30 March 2023 12:10 (20 minutes)*

A renewed attention has spawned in recent years to the pion parton distribution functions (PDFs). In 2018, the JAM collaboration included not only the pion-induced Drell-Yan data from Fermilab's E615 experiment but additionally the leading neutron electroproduction data from HERA for the first time in a global QCD analysis. Unfortunately, further useful experimental data have been scarce. With the upcoming tagged deep inelastic scattering (TDIS) experiment at JLab, which is a fixed-target complement to the leading neutron experiment, and the electron ion collider (EIC), we have an opportunity to further study pion structure. I will discuss to what extent the pion PDFs can be constrained with these experiments, with a special focus on the resonance region of the pion.

### Submitted on behalf of a Collaboration?

No

### Participate in poster competition?

No

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**Session Classification:** WG6

**Track Classification:** WG6: Future Experiments