

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



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Type: **Parallel talk**

Electroweak precision fits and contact interactions with EIC and LHeC DIS data

Wednesday, 29 March 2023 10:00 (20 minutes)

We study the potential of DIS measurements at the Large Hadron-electron Collider (LHeC) and the Electron-Ion Collider (EIC) to probe physics beyond the Standard Model. Our study is performed in the context of the Standard Model Effective Field Theory (SMEFT). We find that future measurements at both machines can improve existing SMEFT fits to precision electroweak data by resolving blind spots in fits that utilize LEP and SLC data. We further show that the LHeC can probe semi-leptonic four-fermion operators to the 10 TeV level in some cases, improving upon the LHC reach.

Submitted on behalf of a Collaboration?

No

Participate in poster competition?

No

Primary author: Dr BISSOLOTTI, Chiara

Presenter: Dr BISSOLOTTI, Chiara

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