

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



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Type: **Parallel talk**

High energy neutrino-nucleon cross sections for CT18 parton distribution functions

Tuesday, 28 March 2023 17:30 (20 minutes)

For the CTEQ-TEA Collaboration

We present predictions of the cross section of high-energy neutrino-nucleon scattering.

The calculations are based on CT18NNLO parton distribution functions, and their uncertainties. For the highest energies, we extrapolate the PDFs to small x according to several assumptions, which affect the uncertainties at such high energies.

The results can be applied to astrophysical neutrino observatories, such as IceCube currently and proposed future detectors.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

No

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