



Contribution ID: 524

Type: **Oral presentation**

## **Towards High-Precision Nucleon Parton Distributions via Distillation**

*Wednesday 28 July 2021 06:00 (15 minutes)*

The pseudo-distribution formalism is one such methodology capable of illuminating the collinear structure of hadrons from matrix elements of suitably constructed space-like operators calculated using lattice QCD. Looking more closely at the unpolarized nucleon PDF calculation of the HadStruc collaboration, the improved statistical quality of the computed Ioffe-time pseudo-distributions opens the possibility of rigorously quantifying systematics inherent to this calculation. A method to simultaneously extract the PDFs and capture and remove systematic effects is developed. This bolsters the prospect of a reliable PDF extraction with minimal systematic contamination.

**Primary author:** EGERER, Colin (William and Mary)

**Presenter:** EGERER, Colin (William and Mary)

**Session Classification:** Hadron Structure

**Track Classification:** Hadron Structure