

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 677

Type: **Contributed Talk**

## Defiducialization: Providing Experimental Measurements for Accurate Fixed-Order Predictions

*Wednesday, April 14, 2021 12:35 PM (20 minutes)*

An experimental procedure is proposed to perform measurements of differential cross sections which can be compared to fixed-order QCD predictions with improved accuracy. The procedure can be applied to the Drell-Yan cross-section measurements which are differential in the boson transverse momentum. An example analysis is performed using the ATLAS measurement of the Z-boson production cross section at center-of-mass energy of 8 TeV. The resulting full phase space measurement of the cross section differential in the boson rapidity is compared to theoretical predictions computed with next-to-next-to leading-order accuracy in QCD.

(based on Eur. Phys. J. C 80, 875 (2020))

**Primary author:** GLAZOV, alexander (DESY)

**Presenter:** GLAZOV, alexander (DESY)

**Session Classification:** Structure function and parton densities

**Track Classification:** Structure Functions and Parton Densities