



Contribution ID: 32

Type: **Invited talk**

State-of-the-art extractions of pion parton distributions

Thursday 2 December 2021 08:40 (25 minutes)

Recently, we have performed a Monte Carlo global QCD analysis of pion parton distribution functions using Drell-Yan and leading neutron data. Since then, we have systematically implemented threshold resummation on the Drell-Yan cross section using various methods of the calculation, each of which differently impacts the large x distribution of the valence quark. Additionally, we have performed fits of the valence distribution to available lattice QCD data in the form of reduced pseudo Ioffe time distributions. Impact studies for the future EIC were performed. Venturing into the 3-dimensional structure of the pion, we also look at low-transverse momentum data to constrain the pion transverse momentum dependent parton distribution functions. In this talk, I will highlight these topics in the latest on pion structure global analyses.

Author: BARRY, Patrick (Jefferson Lab)

Presenter: BARRY, Patrick (Jefferson Lab)

Session Classification: McCartor Session