## **Particle Physics Challenges**



Contribution ID: 10

Type: not specified

## Quasi Transverse Momentum Dependent PDFs from Lattice QCD

Wednesday 26 September 2018 18:27 (18 minutes)

Transverse-momentum dependent PDFs (TMDPDFs) are an important ingredient for high-precision measurements of transverse momentum distributions, e.g. of the Higgs boson, and an interesting probe of the proton structure itself. So far, they have only been poorly extracted from measurement. Recently, much progress has been made in calculating PDFs from lattice QCD using the so-called quasi PDF approach. I will briefly review quasi PDFs and discuss the construction of quasi TMDPDFs and to what extent they can be used to directly calculate TMDPDFs with Lattice QCD. In particular, complications arising from combining soft and collinear matrix elements are pointed out and possible solutions are suggested.

Primary author:EBERT, Markus (MIT)Presenter:EBERT, Markus (MIT)Session Classification:Parallel Session: Pheno 3

Track Classification: Particle Phenomenology