

Lattice Calculation of Parton Distribution Function from LaMET

Monday, July 23, 2018 3:20 PM (20 minutes)

We present a lattice-QCD calculation of the isovector parton distribution function (PDF) within the framework of large-momentum effective theory (LaMET). We detail the systematics that affect PDF calculations, providing guidelines to improve the precision of future lattice PDF calculations. We find our final parton distribution to be in reasonable agreement with the PDF provided by the latest phenomenological analysis.

Primary authors: Prof. LIN, Huey-Wen (Michigan State University); Dr ZHANG, Jian-Hui (Universität Regensburg); Prof. CHEN, Jiunn-Wei (National Taiwan University); Prof. JIN, Luchang (University of Connecticut); Dr YANG, Yi-Bo (Michigan State University); Dr ZHAO, Yong (Massachusetts Institute of Technology); Dr LIU, Yu-Sheng (Tsung-Dao Lee Institute)

Presenter: Dr LIU, Yu-Sheng (Tsung-Dao Lee Institute)

Session Classification: Hadron Structure

Track Classification: Hadron Structure