Contribution ID : **250** Type : **Poster**

Lattice calculation of hadronic tensor of the nucleon

Tuesday, 20 June 2017 20:30 (1:00)

Content

We compute the hadronic tensor $W_{\mu\nu}$ in the Euclidean space by calculating 4-point correlation functions on the lattice, two topologically distinct connected insertons are considered which help to separate the connected sea parton contribution from that of the disconnected sea. We try to convert the Euclidean hadronic tensor to Minkowski space through inverse Laplace transform. As an exploratory study, we use a $12^3 \times 128$ anisotropic lattice with $a_s \sim 0.18$ fm and $m_\pi \sim 640$ MeV for a range of Q^2 and x.

Preferred track (if multiple tracks have been selected)

Hadron Structure

Primary author(s) : JIAN, Liang (University of Kentucky)

Co-author(s) : Prof. KEH-FEI, Liu (University of Kentucky); Dr. YI-BO, Yang (Michigan State University)

Presenter(s) : Prof. KEH-FEI, Liu (University of Kentucky)

Session Classification : Poster Session