36th Annual International Symposium on Lattice Field Theory

Contribution ID: 182

The strange quark contribution to the spin of the nucleon

Wednesday, 25 July 2018 17:10 (20 minutes)

Quark line disconnected matrix elements of an operator, such as the axial current, are difficult to compute on the lattice. The standard method uses a stochastic estimator of the operator, which is very noisy. We discuss and further develop our alternative approach using the Feynman-Hellmann theorem which involves only evaluating two-point correlation functions. This is applied to computing the contribution of the quark spin to the nucleon and in particular for the strange quark.

Primary author: Dr HORSLEY, Roger (University of Edinburgh)Presenter: Dr HORSLEY, Roger (University of Edinburgh)Session Classification: Hadron Structure

Track Classification: Hadron Structure