

Pion distribution amplitude from Euclidean correlation functions: Universality and higher-twist effects

Wednesday, July 25, 2018 2:40 PM (20 minutes)

We study the feasibility to extract the leading twist pion distribution amplitude (DA) and the higher twist normalization constant from suitably chosen Euclidean correlation functions with two local currents at a spacelike separation. We demonstrate the advantages of considering several correlation functions simultaneously and extracting the pion DA from a global fit. This position space approach is complementary to the calculation of the lowest moments of the DA using the Wilson operator product expansion and avoids mixing with lower dimensional local operators on the lattice. We will highlight similarities and differences to closely related methods that use quasi- or pseudo-distributions.

Primary authors: Prof. SCHÄFER, Andreas (Universität Regensburg); Dr GLÄSSLE, Benjamin (Universität Regensburg); Dr HUTZLER, Fabian (Universität Regensburg); Prof. BALI, Gunnar (University Regensburg); Dr ZHANG, Jianhui (University of Regensburg); Dr GÖCKELER, Meinulf (Universität Regensburg); Dr GRUBER, Michael (Universität Regensburg); Dr WEIN, Philipp (Universität Regensburg); Prof. BRAUN, Vladimir (Universität Regensburg)

Presenter: Dr WEIN, Philipp (Universität Regensburg)

Session Classification: Hadron Structure

Track Classification: Hadron Structure