

Images of Dynamical Chiral Symmetry Breaking

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Collaboration

Abstract content

The pion occupies a special place in nuclear physics: to many it is the “simplest hadron”, however this is a misnomer. The pion encapsulates the myriad complexities of Quantum Chromodynamics (QCD), e.g., it is both a bound-state of a dressed-quark and a dressed-antiquark in quantum field theory and the Goldstone mode associated with dynamical chiral symmetry breaking in QCD. Using QCDs Dyson-Schwinger equations we will discuss properties of the pion, as expressed by aspects of its light-front wavefunction, and connect this to dynamical chiral symmetry breaking (DCSB) in QCD. The role of DCSB in the momentum transfer evolution of the pion and nucleon form factors will also be discussed.

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