

Calculation of masses and amplitudes of pseudoscalar mesons

Tuesday 15 November 2022 16:30 (2 hours)

From Quantum Field Theory (QFT) for non-perturbative systems, the Schwinger-Dyson equations (SDE) are obtained, which are analogous to the Euler-Lagrange equations in QFT, since they are the equations of motion of the Green's functions. The SDEs are an infinite set of integral equations coupled to each other and it is only possible to solve them by means of a truncation scheme. The Bethe-Salpeter equations (BSE) have as a solution the wave function of the states bound to a system of two particles. The BSEs are obtained from a covariant relativistic formalism. We solve abelian models for quantum chromodynamics (QCD) at low energies, which rules allow us to obtain the spectrum of pseudoscalar mesons $J^P = 0^-$ and the decay constants.

Poster fallback option for rejected abstracts for parallel oral presentations

Yes

Author: CRIOLLO ESTRELLA, Ruben Hernando (Universidad de Nariño)

Presenter: CRIOLLO ESTRELLA, Ruben Hernando (Universidad de Nariño)

Session Classification: Pizza and poster session

Track Classification: QCD, QGP and Heavy ion physics