

Hadron properties under strong magnetic fields in the NJL model

Sunday, 6 September 2020 13:05 (7 minutes)

We study the magnetic field dependence of the masses of pions, diquarks and nucleons in the context of the Nambu-Jona-Lasinio model. Eigenvalue equations associated with charged particles are obtained using the Ritus formalism. In this way we fully take into account the existence of non-vanishing Schwinger phases. Our results are compared with those available in the literature obtained using Lattice QCD and/or Chiral Perturbation Theory.

Primary author: SCOCCOLA, Norberto (Comision nacional energia atomica)

Co-authors: Mr COPPOLA, Maximo (CNEA, Argentina); Prof. GOMEZ DUMM, Daniel (UNLP, Argentina); Prof. NOGUERA, Santiago (Univ. Valencia, España)

Presenter: SCOCCOLA, Norberto (Comision nacional energia atomica)

Session Classification: QM, PARTICLES, ATOMS, NUCLEI, SNOVAE MERGERS, QED, BHS, GRBS, COMPACT STARS