

# Perturbative QCD at high densities.

*Wednesday, November 17, 2021 3:05 PM (2 hours)*

The lectures will detail the high-density cold quark-matter equation of state (EoS) as described by perturbative Quantum Chromodynamics (pQCD), and how this can constrain the Neutron Star EoS at lower densities. Topics covered will include: (i) framework of relativistic thermal and high-density perturbation theory, (ii) infrared problems in thermal field theory and their resolution for the EoS, (iii) the general structure of the pQCD EoS and (iv) current status of theoretical calculations.

**Presenter:** Dr GORDA, Tyler (Technische Universitat Darmstadt)

**Session Classification:** Dense nuclear matter