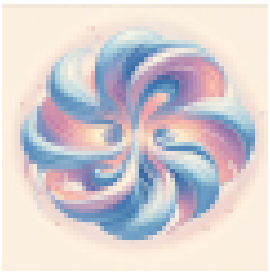

ID de Contribution: **82** Type: **Flash Talk (Plenary) + Poster**

Shear viscosity of rotating, hot, and dense spin-half fermionic systems using Kubo formalism

lundi 22 juillet 2024 17:30 (5 minutes)

In this study, we calculate the shear viscosity for rotating fermions with spin-half under conditions of high temperature and density. We employ the Kubo formalism, rooted in finite-temperature quantum field theory, to compute the field correlation functions essential for this evaluation. The one-loop diagram pertinent to shear viscosity is analyzed within the context of curved space, utilizing tetrad formalism as an effective approach in cylindrical coordinates. Our findings focus on extremely high angular velocities, ranging from 0.1 to 1 GeV, which align with experimental expectations. Furthermore, we explore the inter-relationship between the chemical potential and angular velocity within the scope of this study.

Orateur: Dr SINGH, Rajeev (Stony Brook University)

Classification de Session: Flash talk and posters