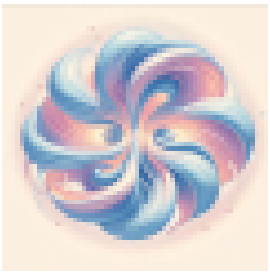

ID de Contribution: **48** Type: **Talk**

In- and out-of-equilibrium aspects of the Chiral Magnetic Effect from lattice QCD

lundi 22 juillet 2024 18:10 (5 minutes)

In this work, we study the Chiral Magnetic Effect (CME) from lattice QCD simulations in two different scenarios, particularly focusing on the leading-order coefficient of the vector current in a chiral chemical potential expansion. In the first case, we consider a system in thermal equilibrium with a non-uniform magnetic background. We show that local chiral magnetic currents appear in this setup, following non-trivially the magnetic field profile. We check that these currents average zero in the full volume, confirming that the total CME conductivity vanishes in equilibrium. In the second case, we present the first steps towards studying the out-of-equilibrium aspects of CME on the lattice. We use Euclidean correlators, calculated in a uniform magnetic background, to investigate the out-of-equilibrium conductivity via spectral reconstruction methods.

Auteurs principaux: Dr BRANDT, Bastian (Bielefeld University); Prof. ENDRODI, Gergely (Bielefeld University); GARNACHO-VELASCO, Eduardo (Bielefeld University); Dr MARKO, Gergely (Bielefeld University); VALOIS, Dean (Bielefeld University)

Orateur: GARNACHO-VELASCO, Eduardo (Bielefeld University)

Classification de Session: Flash talk and posters