

Multipoint Energy Correlators in Heavy Ion Collisions at RHIC Energies from Simulation

Wednesday 8 January 2025 14:30 (30 minutes)

Energy-energy correlators and their three point counterpart have recently been of great interest to the heavy ion jet community as they directly provide the virtuality scale and are relatively simple to calculate. Recent measurements of the two point correlator in PbPb collisions compared to pp collisions by CMS show interesting trends, even when accounting for the energy loss causing a shift in virtuality. This talk will present results from a Monte Carlo study using PYTHIA and JEWEL at RHIC energies to investigate the potential of measuring ENCs at sPHENIX and STAR given the relatively large heavy-ion background compared to the jet energy. Additionally, the potential physics that can be learned from such measurements will be discussed.

Authors: KIMELMAN, Benjamin (Vanderbilt University); KUNNAWALKAM ELAYAVALLI, Raghav (Vanderbilt University)

Presenter: KIMELMAN, Benjamin (Vanderbilt University)

Session Classification: Afternoon Session