

15th International Workshop on Boosted Object Phenomenology,
Reconstruction, Measurements, and Searches at Colliders



Contribution ID: 96

Type: **not specified**

Imaging Intrinsic and Emergent Scales of the QGP with Energy Correlators

Monday, 31 July 2023 16:00 (20 minutes)

We will describe an approach to resolving the scales of the QGP using the recently introduced energy correlator observables, showing how these observables enable one to cleanly extract the dynamics of the plasma as a function of scale. We consider the case of both massless and heavy quark jets, and highlight how heavy quark energy correlators provide a particularly sensitive probe of the QGP due to an interplay of the suppression of collinear radiation due to mass effects, and medium induced radiation. We also discuss future theory advances and prospects for experimental measurements with energy correlators.

Primary author: MOULT, Ian

Co-authors: ANDRES, Carlota; HOLGUIN, Jack; DOMINGUEZ, Fabio; MARQUET, Cyrille

Presenter: MOULT, Ian

Session Classification: Energy Correlators