Quark Matter 2023



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Insights on small collision systems in terms of hydrodynamics, pre-hydrodynamics, decorrelations, and non-flow

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The study of small collision systems at RHIC (pp, pA, dA, ³HeA, OO) and the LHC (pp, pPb, OO) provide crucial insights into the limits of quark-gluon plasma formation. Recently, we have analyzed new experimental results in terms of hydrodynamics, pre-hydrodynamics, decorrelations, and non-flow (Phys.Rev.C 105 (2022) 2, 024906). We extend these studies to include ultra-peripheral collisions and additional collision geometries. Disentangling these effects is important for understanding the role of the earliest stages of pre-hydrodynamics and any potential role for initial state correlations. Specifically the role of intrinsic versus fluctuation geometries will be detailed.

Category

Theory

Collaboration (if applicable)

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