

Abstract Submitted
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Thermal fluctuations in heavy-ion collisions CLINT YOUNG, University of Minnesota — The thermal fluctuations inherent in viscous hydrodynamics are significant when examining a fluid either at small length scales or near a critical point. Both of these conditions can be met in ultra-relativistic heavy-ion collisions. These fluctuations have small but non-vanishing effects on two-particle correlations at the Relativistic Heavy-Ion Collider (RHIC) and at the Large Hadron Collider (LHC). Because the amplitudes of the fluctuations are related to viscosity through the fluctuation-dissipation relation, their effects on observables may lead to an independent measurement of the transport coefficients in quark-gluon plasma.

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