Nuclear Theory

Initial fluctuations and dihadron and γ-hadron correlations in high-energy heavy ion collisions

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Jets, jet-medium interaction and hydrodynamic evolution of fluctuations in initial parton density all lead to the final anisotropic dihadron azimuthal correlations in high-energy heavy-ion collisions. We remove the harmonic flow background and study the net correlations from different sources with different initial conditions within the AMPT model. We also study γ-hadron correlations which are only influenced by jet-medium interactions.

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