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Probing Hydrodynamics at 7.7 GeV: Model Comparisons of the Bulk Properties of Au+Au Collisions.

Monday 27 October 2025 15:00 (15 minutes)

We study hydrodynamic effects in the measurements of bulk properties of the matter produced in Au+Au collisions at $\sqrt{s_{NN}} = 7.7$ GeV using identified hadrons ($\pi^{\pm}$, $K^{\pm}$, p and $\bar{p}$) with EPOS4, SMASH and PYTHIA8 models. Midrapidity ($|y| < 0.1$) results for invariant particle yield, average transverse momenta and particle ratios, in dependence of various collision centralities are presented and compared with the 2010 collected data from STAR experiment in the Beam Energy Scan (BES) Program at the Relativistic Heavy Ion Collider (RHIC).

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