

Measurement of Bulk Properties with sPHENIX from the 2023 RHIC Run

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sPHENIX is a next-generation, state-of-the-art particle detector at the Relativistic Heavy-Ion Collider (RHIC) that has recently taken its first dataset of 200 GeV Au+Au collisions during a commissioning run in 2023. sPHENIX features a variety of subsystem capable of detailed studies of bulk particle production in heavy-ion collisions, including the first barrel hadronic calorimeter at RHIC. This talk presents the first measurements by sPHENIX of bulk QGP properties in the 2023 commissioning data, including the charged particle pseudorapidity density, the total transverse energy, neutral pion production, and azimuthal anisotropies. These measurements are compared to the previous results at RHIC, as well as the latest models of bulk particle production. In addition, we highlight that these first measurements in sPHENIX serve as an important way to benchmark the detector performance and reconstruction for the future measurements that follow.

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Primary author: BELMONT, Ron (University of North Carolina at Greensboro)

Co-author: ROSATI, Marzia

Presenter: BELMONT, Ron (University of North Carolina at Greensboro)

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