Quark Matter 2023



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Quarkonia measurements in heavy ion collisions with the sPHENIX experiment

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Quarkonia measurements in heavy-ion collisions are important for understanding both initial-state effects on heavy-quark production and final-state interactions between heavy quarks and the hot and dense nuclear matter created in high-energy heavy-ion collisions.

The sPHENIX experiment at RHIC will begin its commissioning and first Au+Au data-taking run in 2023, and plans to measure the production of Υ 's and high pT J/ ψ 's in the di-electron channel in this dataset as well as in future p+p, p+Au and Au+Au running. The status of the relevant detectors and their performance for dielectron measurements will be presented and compared to what is expected from a Monte Carlo simulations. Analysis prospects and future plans will also be discussed.

Category

Experiment

Collaboration (if applicable)

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