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Recent Highlights from the PHENIX Heavy-Ion Program at RHIC

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Over the last decade it has been established that a quark-gluon plasma (QGP) is formed in ultrarelativistic A+A collisions at RHIC energies. In recent years, detector upgrades have enabled the detailed study of this hot and dense matter. Although the RHIC d+Au program was originally undertaken to study initial state and cold nuclear matter effects, recent measurements at both RHIC (d+Au) and the LHC (p+Pb) have found evidence for collective phenomena in these small systems.

We present the latest measurements from the PHENIX experiment. The talk will include recent results on electromagnetic probes that allow to constrain the time evolution of the medium. We will present the system size dependence on correlation observables from d+Au towards Au+Au collisions. The latest quarkonia and heavy-flavor results from PHENIX will be discussed. Data from the RHIC beam-energy scan that can give insight into the nuclear equation of state will be shown. Finally, we will present future plans and upgrades of the PHENIX detector.

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