sPHENIX Highlights

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sPHENIX is a new state-of-the-art detector constructed at Brookhaven National Laboratory's Relativistic Heavy Ion Collider (RHIC). It was commissioned and took first Au+Au collision's data in the RHIC Run-2023. It seeks to answer fundamental questions on the nature of the quark-gluon plasma (QGP), including its coupling strength and temperature dependence, by using a suite of precision jet and Upsilon measurements that probe different length scales of the QGP. This is possible with its full acceptance, $| \eta |< 1$ and $0-2\pi$ in ϕ, electromagentic and hadronic calorimeters and precision tracking enabled by a 1.5 T superconducting magnet. With the increased luminosity afforded by accelerator upgrades, sPHENIX will perform high statistics measurements extending the kinematic reach at RHIC to overlap the LHC's. This overlap will facilitate a better understanding of the role of temperature, density and parton virtuality in QGP dynamics and, specifically, jet quenching. This talk will discuss the present detector status in the ongoing RHIC Run-2024, as well highlights on first physics measurements in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV obtained from RHIC Run-2023.