

sPHENIX: The next generation heavy ion experiment at RHIC

The sPHENIX detector at Relativistic Heavy Ion Collider (RHIC) is designed to further study the microscopic nature of the quark-gluon plasma (QGP) and nucleons through precision measurements of jets, Upsilon and open heavy flavor probes over a broad p_T range. It is scheduled to start the operation in 2023, using state-of-the-art detector technologies to fully exploit the highest RHIC luminosities. The experiment incorporates the 1.4T former BaBar solenoid magnet, and will feature high precision tracking and vertexing capabilities, provided by a compact TPC, Si-strip intermediate tracker and MAPS vertex detector. This is complemented by highly granularity electromagnetic and hadronic calorimeters with full azimuthal coverage. This presentation outlines the key measurements enabled by the new detector and recent status of the project.

Primary author: Prof. OKAWA, Hideki (Fudan University)

Presenter: Prof. OKAWA, Hideki (Fudan University)

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