Abstract Submitted
for the DNP16 Meeting of
The American Physical Society

The sPHENIX Detector: Design and Performance Requirements
ERIC MANNEL, Brookhaven Natl Lab, SPHENIX COLLABORATION — A new detector, sPHENIX, is being proposed to explore the quark-gluon plasma through measurements of jet properties in heavy ion collisions at the Relativistic Heavy Ion Collider, RHIC, at Brookhaven National Laboratory. The detector is based on the 1.5T super conducting solenoid magnet formerly used for the BaBar experiment and provides charged particle tracking, electromagnetic and hadronic calorimetry with a high speed data acquisition system capable of recording data at rates up to 15 KHz. In this talk we will present the performance requirements of the calorimeters and tracking systems, along with preliminary results from prototype tests at the Fermilab Test Beam Facility and future prospects for sPHENIX

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Date submitted: 01 Jul 2016 Electronic form version 1.4