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Precision Charged Particle Tracking with sPHENIX

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The PHENIX collaboration is pursuing a series of aggressive upgrades aimed at excellent jet reconstruction capabilities to make use of the enhanced luminosity at RHIC, complement measurements being made at the LHC, and shed new light on the microscopic structure of the quark-gluon plasma. With a new detector, sPHENIX, offering large coverage electromagnetic and hadronic calorimetry and precision charged particle tracking, we will be well positioned to provide a broad and exciting program of jet probe and upsilon measurements.

This poster will present the role that a precision charged particle tracking and vertex detector will play in the sPHENIX program. Details will be given on the tracking design and performance for reconstructing charged particles. The capabilities for bottom jet identification, upsilon reconstruction, and fragmentation function measurements in heavy ion collisions will be covered.

On behalf of collaboration:

PHENIX

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