

Abstract Submitted
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PHENIX Silicon Vertex Tracker ROBERT PAK, Brookhaven National Laboratory, PHENIX COLLABORATION — The PHENIX detector at RHIC will be upgraded with a silicon vertex tracker, greatly enhancing the capability to investigate the hot and dense nuclear matter formed in heavy ion collisions as well as significantly improving measurement of the proton spin structure in polarized proton-proton collisions. The vertex tracker will allow direct measurement of heavy quark production by providing the displacement of decay vertices from the primary interaction point. The detector design is comprised of a four-layer barrel, with two inner pixel sensor layers and two outer strip sensor layers, and umbrella-shaped end-caps consisting of mini-strip sensors. This presentation will outline the physics capability added to PHENIX by the new silicon vertex tracker, the technology choices in the design, and the current status of the project.

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