

Abstract Submitted
for the DNP08 Meeting of
The American Physical Society

Testing of the PHENIX Silicon Pixel Detector at Fermi National Laboratory NICOLE APADULA, Stony Brook University, PHENIX COLLABORATION — The Silicon Vertex Tracker (VTX) is a new upgrade to PHENIX at the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory (BNL). The VTX is composed of two layers of a silicon pixel detector and two layers of a silicon stripixel detector. The innermost layers, at 2.5cm and 5cm from the beam line, consist of silicon pixel sensors capable of reconstructing tracks and achieving good DCA (Distance of Closest Approach) resolution. The DCA is the smallest distance between the collision vertex found by the VTX and the track reconstructed from the PHENIX central arms. Good DCA resolution will allow a clean identification of charm and bottom decays. This is accomplished with a $50 \times 425 \mu\text{m}^2$ cell size and low material budget to avoid multiple scattering. Three layers of the Silicon Pixel Detector will be placed in a test beam at Fermi National Laboratory (FNAL) to check tracking capabilities and efficiencies. The results will be presented.

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Date submitted: 30 Jun 2008

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