

Commissioning and detector performance of the VTX-Pixel detector for RHIC-PHENIX experiment.

Heavy quarks (charm and bottom) is one of the key probes to study properties of Quark Gluon Plasma (QGP). A silicon vertex tracker (VTX) has been developed for RHIC-PHENIX experiment mainly for the measurement of the heavy quarks. It enables to measure tracks of charged particles precisely enough to evaluate yields of charm and bottom individually and therefore is an essential tool to study the behavior of charm and bottom inside QGP. It also can be a powerful tool for measurement of long-lived particles, such as hyperon.

The VTX is a barrel detector with four layers. It consists of two silicon detectors with different readout system, inner two layers are with pixel readout and outer two layers are with strip readout.

The VTX was successfully installed at the end of 2010 and started to take physics data. In this poster presentation, the detector performance of the pixel detector during commissioning and physics data taking is shown.

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