Performance of the Beam-Beam Counter in PHENIX

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Abstract

The PHENIX Beam-Beam Counter (BBC) is responsible to detect a nuclear collision, to provide the precise time information for time-of-flight measurements, and to determine the collision point along the beam axis in the local level-1 trigger.

In the summer of 2000, BBC was successfully operated during the entire period of Au on Au collisions as well as in a period of polarized proton beam commissioning. The timing resolution was achieved to be around 120ps online for each detector element, and to be about 30ps as the entire subsystem, being provided for the TOF offline analyses. Detector performance will be discussed at the conference.