

Abstract Submitted
for the OSF15 Meeting of
The American Physical Society

The Performance of the Heavy Flavor Tracker Detector at STAR

AYMAN HAMAD, Kent State Univ - Kent, STAR COLLABORATION COLLABORATION — The Heavy Flavor Tracker (HFT¹) is a silicon vertex detector for the STAR experiment that was built and installed at the Relativistic Heavy Ion Collider at Brookhaven National Lab in 2014. The HFT consists of four layers of silicon detectors. The two innermost layers use ultra-thin (50 microns) pixel sensors with a size of 20 X 20 microns that are made from Monolithic Active Pixel Sensors (MAPS). The air-cooled lightweight pixel detector is surrounded by a silicon pad and a silicon strip detector to interface to STAR's main tracking detector; the Time Projection Chamber (TPC). The full system is capable of a track pointing resolution of about 30 microns for 1 GeV/c pions. In Spring-2014 the HFT system had its first physics run recording about 1.2 billion Au+Au collisions at center of mass energy of 200 GeV/c. In this talk we will report on the status and performance of the HFT. [1] STAR Heavy Flavor Tracker Technical Design Report, <https://drupal.star.bnl.gov/STAR/starnotes/public/sn0600>

Ayman Hamad
Kent State Univ - Kent

Date submitted: 22 Sep 2015

Electronic form version 1.4