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Overview of STAR Detector Upgrades

The STAR experiment at the Relativistic Heavy Ion Collider (RHIC) has been in operating for more than 20 years. In the passed decade, the Chinese STAR group made significant contributions on most of the STAR detector upgrades. In the order from the beginning to the current, these detectors are Time-Of-Flight (TOF), Muon Telescope Detector (MTD), High Level Trigger (HLT), Heavy Flavor Tracker (HFT), inner Time Projection Chamber (iTPC), endcap Time-Of-Flight (eTOF), Event Plane Detector (EPD), Forward Silicon Tracker (FST) and Forward sTGC Tracker (FTT). These detector upgrades are crucial to the physics programs at STAR.

In this talk, we will give an overview on the STAR detector upgrades, especially focusing on the contributions from the Chinese STAR group. The details of the STAR detector upgrades for the Beam Energy Scan Phase II program and at Cold QCD program will be presented. The scientific opportunities enabled from these detector upgrades will be discussed.

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