

The STAR Upgrade Program

The STAR detector at RHIC collected its first events in June of 2000. The detector has been upgraded several times since that time and we are continuing to upgrade the system in order to enhance the capabilities of the detector and widen the scope of the research program. In this talk, we will discuss the ongoing upgrades that will conclude in the period between 2011 and 2015. The list of topics includes a detector upgrade that will enhance the pointing near the vertex for heavy flavor identification (the Heavy Flavor Tracker (HFT)), a mid-rapidity detector at large radius to enhance particle ID in the lepton sector (the Muon Telescope Detector (MTD)), and detectors in the forward direction to enable W boson identification and asymmetry measurements (the Forward Gem Tracker (FGT)) as well as to measure spin asymmetries (the Forward Hadron Calorimeter(FHC)). A high level trigger upgrade (HLT) that allows us to make fast online trigger decisions for rare events will also be discussed. After describing the overall upgrade program, we will focus on the MTD and the HLT in order to review their progress, and first results, in more detail.

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