## Strangeness in Quark Matter



Contribution ID: 132 Type: Talk

## Status and Physics Opportunities of STAR Heavy Flavor Tracker and Muon Telescope Detector Upgrades

Friday, 26 July 2013 11:30 (30 minutes)

The STAR Collaboration will complete the Heavy Flavor Tracker (HFT) and the Muon Telescope Detector (MTD) upgrades by 2014. HFT utilizes the state-of-art active thin pixel detector technology, which will greatly enhance STAR physics capability by measuring heavy quark collectivity and correlations via the topological reconstruction of charmed hadrons over a wide momentum range. MTD is based on the long Multi-Gap Resistive Plate Chamber detector technology designed to measure muons penetrating the bulk of other detectors and the magnet yoke. It will enable STAR to study di-muon and electron-muon correlations and enhance heavy quarkonium studies. With the addition of these upgrades, STAR is well suited to perform precise measurements of production as well as correlations of rare probes (heavy flavors, dileptons) to systematically investigate the quark-gluon plasma properties at RHIC. For the ongoing Run 13 63% of the MTD has been installed and data have been taken. And prototype PXL sectors (30% coverage) have also been installed and commissioned. Anticipated physics results and current status of these upgrades will be reported.

Primary author: Dr QIU, Hao (Lawrence Berkeley National Laboratory)

Presenter: Dr QIU, Hao (Lawrence Berkeley National Laboratory)

Session Classification: Plenary 11