

The STAR eTOF Upgrade

The first RHIC Beam Energy Scan (BES-I) provided an initial survey of the QCD phase diagram by acquiring data from Au+Au collisions from $\sqrt{s_{NN}} = 7.7$ to 62.4 GeV. Based on those results, a second phase of the BES program, BES-II, has been developed and is scheduled to run in 2019 and 2020. One of the proposed upgrades to STAR for BES-II will be the addition of an end-cap time-of-flight system (eTOF). The eTOF upgrade will employ 36 CBM TOF modules for the duration of BES-II. The eTOF upgrade will extend STAR's particle identification (PID) capabilities to higher momentum in the forward pseudorapidity range provided by the iTPC upgrade. A fixed-target program, enabled by the eTOF upgrade, will extend the energy scan below the 7.7 GeV lowest energy of BES-I. In this poster, we discuss the improvements that the eTOF subsystem will bring to the physics program of BES-II.

Preferred Track

Future Experimental Facilities, Upgrades, and Instrumentation

Collaboration

STAR

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