

Abstract Submitted
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Analysis of fixed target collisions with the STAR detector

BROOKE HAAG, UC Davis — Collisions between beam halo nuclei and the aluminum beam pipe allow the STAR detector at RHIC to study fixed-target Au+Al collisions. The injection and sub-injection energy gold beams produce Au+Al collisions at center-of-mass energies of 4.5, 3.5, and 3.0 GeV. These collisions allow STAR to extend the beam energy scan to lower center of mass energies and higher baryon chemical potentials than previously possible. This in turn provides a means of searching for the possible critical point to quantify the nature of the phase transition between hadronic and partonic matter. In this talk, fixed target acceptances for tracking will be discussed. Pion ratios extracted from these fixed-target collisions will be presented and compared to earlier published results from the AGS, SPS, and RHIC.

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