

Abstract Submitted
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Hadron production and freeze-out dynamics in Au+Au at $\sqrt{s_{NN}} = 19.6$ GeV SAMANTHA BROVKO, University of California, Davis, STAR COLLABORATION — The Beam Energy Scan program at RHIC was commissioned to search for the critical point and the turn-off of QGP signatures. The program completed collisions of Au+Au at energies ranging from 7.7 to 62.4 GeV per nucleon pair in the years 2010 and 2011. The addition of a full-coverage Time-of-Flight detector at STAR has extended the momentum range for clean particle identification. Mid-rapidity hadron spectra will be used to determine the freeze-out dynamics of the system. We will present particle spectra for π , K, p and \bar{p} as a function of $m_T - m_0$ and use this to discuss particle ratios, in particular the source's Coulombic effect on soft pions, as well as chemical and kinetic freeze-out properties at $\sqrt{s_{NN}} = 19.6$ GeV Au+Au. We will also compare results to $\sqrt{s_{NN}} = 7.7$ GeV, 11.5 GeV, 19.6 GeV (from 2001), 27 GeV, 39 GeV Au+Au data from STAR, and $\sqrt{s_{NN}} = 17.3$ GeV Pb+Pb data from the SPS heavy ion program.

Samantha Brovko
University of California, Davis

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