

Identified particle production in isobaric collisions of Ru+Ru and

Zr+Zr at $\sqrt{s_{NN}} = 200$ GeV with the STAR experiment

Yang Li (for the STAR collaboration)

University of Science and Technology of China

Transverse momentum distributions of identified hadrons provide important information on the transverse expansion and the freeze-out properties of the hot and dense matter created in relativistic heavy-ion collisions. In 2018, the STAR experiment collected large datasets of isobaric collisions of Ru+Ru and Zr+Zr at $\sqrt{s_{NN}} = 200$ GeV, which provide a good opportunity to study the charged particle spectra in these collisions with great precision. In this presentation, we will report analysis progresses towards measuring π^\pm , K^\pm , proton and anti-proton spectra as a function of transverse momentum at mid-rapidity for different centrality classes. Particle species are identified utilizing the specific energy loss measured in the Time Projector Chamber, and the time of flight information measured by the Time Of Flight detector. Physics implications of these measurements will be discussed.