System size dependence of net-charge and net-proton fluctuations from Au+Au and Ru+Ru/Zr+Zr-mixed collisions at $\sqrt{s_{NN}} = 200$ GeV from STAR

Zhengxi Yan (for the STAR Collaboration)
Central China Normal University, Stony Brook University

Fluctuations of conserved charges have been extensively studied as sensitive probes to the evolution of heavy-ion collisions. In 2018, the STAR experiment collected large datasets of isobaric collisions of Ru+Ru and Zr+Zr at 200 GeV, which provide an opportunity to study the conserved charge fluctuations with good precision and to compare with similar measurements from the larger Au+Au collision system. The identity of isobar collisions is currently blinded but we can still perform measurements using average of Ru+Ru and Zr+Zr (iso-mixed data). In this talk, we present measurement of cumulants of the net-proton and net-charge multiplicity distribution up to fourth-order from the Ru+Ru and Zr+Zr iso-mixed data. The results are compared with similar results from Au+Au collisions.