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Investigating system size dependence of strange hadron production at 200 GeV at STAR

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"There are significant discussions in the field about the initial conditions, including the size of the system, needed to generate a quark-gluon plasma (QGP). Strangeness production serves as a sensitive probe into the properties of the QGP. It is expected that the Ω/⊠ ratios in different colliding systems may reveal the minimum colliding system size required to produce QGP.
In this poster, we will present the transverse-momentum ($_T$) spectra of strange hadron (⊠, Ω, anti-Ω) in isobar (Ru+Ru and Zr+Zr) and O+O collisions at sqrt(⊠_NN) = 200 GeV at mid-rapidity (y < |0.5|) and the Ω/⊠ ratios in those colliding systems. For O+O, the results with min-bias and high-multiplicity triggers will be shown separately. The O+O system has the extended kinematic coverage benefit from the iTPC upgrade, which extended the rapidity coverage and enhanced the particle identification capability compared with previous results."

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