

1 Semi-inclusive hadron+jet measurement in Ru+Ru and Zr+Zr
2 collisions at $\sqrt{s_{\text{NN}}} = 200$ GeV in STAR

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5 Hadron-triggered semi-inclusive recoil jets (h+jet) serve as an effective
6 probe for studying the properties of quark-gluon plasma (QGP), as they
7 experience jet quenching in the QGP. This observable is increasingly used
8 across various systems due to its ability to probe jets over a broad phase
9 space, including low transverse momenta (p_{T}) and large radii. Measurements
10 of h+jet in relatively smaller isobar collision systems (Zr+Zr and Ru+Ru)
11 compared to other collision systems at RHIC provide important insights into
12 the energy density and path length dependencies of parton energy loss. In
13 this poster, we will report the measurement of h+jet yields for the charged-
14 particle jets with radii ranging from 0.2 to 0.5 in isobar collisions at $\sqrt{s_{\text{NN}}} =$
15 200 GeV. The anti- k_{T} jet reconstruction algorithm is used, with mixed-event
16 technique applied to remove uncorrelated combinatorial background present
17 in heavy-ion collisions. The trigger hadrons are selected with p_{T} between 7
18 and 25 GeV/ c . Results of fully corrected per-trigger jet yield integrated over
19 a recoil region and its relative suppression in central to peripheral collisions
20 at mid-rapidity as a function of jet p_{T} will be presented.