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Collision Geometry and Flow in U+U Collisions ANDY GOLDSCHMIDT, Ohio State University, ZHI QIU, Google Inc., CHUN SHEN, McGill University, ULRICH HEINZ, Ohio State University — Using event-by-event viscous fluid dynamics to evolve fluctuating initial density profiles from the Monte-Carlo Glauber model for U+U collisions, we report a "knee"-like structure in the elliptic flow as a function of collision centrality, located around the 0.5% most central collisions as measured by the final charged multiplicity. This knee is due to the preferential selection of tip-on-tip collision geometries by a high-multiplicity trigger. Such a knee structure is not seen in the STAR data. This rules out the two-component MC-Glauber model for initial energy and entropy production. Hence an enrichment of tip-tip configurations by triggering solely on high-multiplicity in the U+U collisions does not work. On the other hand, using the Zero Degree Calorimeters (ZDCs) coupled with event-shape engineering, we identify the selection purity of body-body and tip-tip events in the full-overlap U+U collisions. By further constraining on the asymmetry of the ZDC signals, we increase the probability of selecting tip-tip events in U+U collisions.

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