

Abstract Submitted
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Beam-energy dependence of spatial and temporal characteristics of shape-selected events in Au+Au collisions at STAR BENJAMIN SCHWEID¹, Stony Brook University — The correlations measured from the Hanbury Brown and Twiss effect (HBT) allows access to the spatial and temporal characteristics of the systems produced in relativistic heavy-ion collisions. This presentation contains new measurements of the two-pion HBT radii, R_{out} , R_{side} and R_{long} which have been made for shape-engineered events by the STAR experiment. Shape selection was accomplished via cuts on the distributions of the second-order flow vector Q_2 . Selected events, characterized with larger magnitudes of Q_2 , indicate a systematic decrease for R_{long} and R_{out} with little, if any, change for R_{side} . Results obtained as a function of collision centrality and average pair transverse momentum (k_T) will be presented for the full range of the Au+Au beam energy scan ($\sqrt{s_{NN}} = 7.7 - 200$ GeV). The implications of these results for expansion dynamics of the collision systems will be discussed.

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