

Abstract Submitted
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Asymmetric dihadron azimuthal correlations in Au+Au collisions at 200 GeV JOSHUA KONZER, Purdue University (STAR) — Dihadron correlations with high transverse momentum (pt) trigger particles provide a powerful tool to unravel the phenomena of the near-side long-range pseudorapidity correlation (ridge) and the away-side correlated conical emission (cone). Studies of dihadron correlations relative to the reaction plane have revealed intriguing dependencies of the ridge and possible Mach cone phenomena on the reaction plane. In this talk, we trigger on high-pt trigger particle orientations relative to the reaction plane, clockwise or counter-clockwise separately, and report dihadron correlations with those trigger particles for Au+Au collisions at 200 GeV. The results indicate a symmetric jet, an asymmetric ridge, as well as an asymmetric away-side correlation. We contrast our data to various theoretical models of the formation mechanisms of the ridge and cone phenomena, and discuss what we may learn from these data-model comparisons.

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