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**Tri-hadron correlation measurements of jet-like emissions in Au + Au collisions at $\sqrt{s} = 200GeV$ with the PHENIX detector** NUGGEHALLI AJITANAND, SUNY Stony Brook, PHENIX COLLABORATION — Charged hadron correlation measurements provide an important probe for the hot and dense matter created in RHIC collisions.In a recent experiment, the PHENIX collaboration has measured three particle correlation functions using a novel technique that approximates the lead-jet axis with the direction of a high transverse momentum hadron. The observed correlation patterns indicate away-side jet modification compatible with the collective excitations of a shock wave leading to conical flow. The inferred Mach angle for this conical flow, gives a direct probe of the equation of state of the low viscosity fluid produced in central and mid-central Au+Au collisions.

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