

Abstract Submitted  
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**Probing Jet Topology with Multi-particle Correlations** NUGGEHALLI AJITANAND, SUNY Stony Brook, PHENIX COLLABORATION — Recent theoretical studies have indicated that jets can form a Mach cone like topology while traversing the low viscosity medium formed in the high energy Au+Au collisions at RHIC. Two particle azimuthal correlations are indicative of such a shape but can also be ascribed to away side jet deflection due to interactions with the strong flow field. Three particle correlations can distinguish between these scenarios. Use of a high pT particle frame can enhance this capability. In this presentation results from the application of this method to simulations and RHIC 200 GeV Au+Au collisions will be shown.

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