

Abstract Submitted
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Two particle correlations with Particle Identification in $\sqrt{s_{NN}}=62.4$ GeV Au+Au collisions MATTHEW MENDOZA, University of California, Riverside — It is well known that the novel state of matter known as the Quark Gluon Plasma created at the Relativistic Heavy Ion Collider suppresses high transverse momentum jets. A study of the baryon-to-meson production ratio in Au+Au collisions has shown a clear increase in the intermediate p_T region for more central (head-on) collisions and in comparison to elementary systems. PHENIX's Time of Flight detector, used in conjunction with the Aerogel Cherenkov Counter, can provide particle identification with good proton/meson separation for $p_T < 10$ GeV/c. I will present studies of particle identified di-jet production using these detectors in a two particle correlation analysis which could help to elucidate the underlying physics of the baryon excess anomaly.

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