

Evolution of the ridge structure in RHIC heavy ion collisions

Friday 31 July 2009 14:00 (25 minutes)

Two particle correlation measurements at RHIC have shown an extended near side delta eta correlation in heavy-ion collisions relative to p+p for both momentum triggered and untriggered analyses. This phenomenon is also known as the “ridge”. An investigation into the momentum dependence of two particle correlations is presented for Cu+Cu 200 GeV collisions from the STAR experiment. We extract the amplitude, eta and phi widths from the Gaussian near side correlation structure, and show how each extracted quantity depends on the lower transverse momentum cut-off. We then compare this evolution to predictions that attribute this correlation structure to a blast-wave expansion of a Color Glass Condensate initial state. Implications for the origin of the ridge will be discussed.

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Session Classification: Heavy Ions III

Track Classification: Heavy Ion Physics/Hot and Dense QCD