



Nuclear Experiment

Jets and jet-like correlations studies from STAR

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I present recent results from jets and jet-like correlation measurements from STAR. The pp data are compared to those from Au-Au collisions to attempt to infer information on the medium produced and how hard scattered partons interact with this matter. Results from d-Au events are utilized to investigate the magnitude of cold nuclear matter effects on hard scatterings. The evolution of the underlying event from pp to d-Au collisions is studied. In heavy-ion collisions, background fluctuations are the major source of systematic uncertainties in jet measurements. Detailed studies are therefore being made of these fluctuations and recent progress in our understanding is reported. Jet and jet-hadron correlations results are presented and give clear indications that partonic fragmentation at RHIC is highly modified in the presence of a strongly coupled coloured medium, resulting in a significant broadening and softening of the jet fragments correlation. Finally di-hadron correlations utilizing identified particles as triggers indicate that the "ridge" is stronger for p+K than for pi but that the near-side peak per-trigger yield remains unaltered from d-Au to Au-Au collisions.

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