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Probing Strongly Interacting Matter with the Measurement of Flow, HBT, and Spectra over a Wide Rapidity

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Recently a general consensus has developed amongst the four experiments at RHIC and the theoretical community that mid-rapidity measurements of Au+Au central collisions at $\sqrt{s_{NN}} = 200$ GeV point toward the creation of strongly interacting matter with extraordinarily high energy density. Jets formed from high-energy quarks and gluons are absorbed by this matter and produced particles tend to move collectively in response to variations of pressure across the volume. Until recently, however, the rapidity dependence of many of the RHIC results has not been well explained by any models. A systematic array of charged particle, flow, HBT, and spectra results are now available over a broad range of rapidity at RHIC for a variety of collision energies from a variety of systems, including Cu+Cu, Au+Au and d+Au. Furthermore, hydrodynamic models are becoming more sophisticated. The latest results from RHIC will be presented in this context and the theoretical implications will be explored.