Abstract Submitted for the APR10 Meeting of The American Physical Society

Estimates for the transport coefficients of the quark gluon plasma produce in Au+Au collisions at RHIC ROY LACEY, Chem. Dept., Stony Brook University — There is now compelling evidence that the quark gluon plasma (QGP) is produced in a rapid crossover phase transition in heavy ion collisions at the Relativistic Heavy Ion Collider (RHIC). However, the properties of the QGP still require more detailed study. I will present state-of-the-art scaling techniques which provide important constraints for estimates of the sound speed ( $c_s$ ), mean free path ( $\lambda$ ), viscosity ( $\eta/s$ ) and stopping power ( $\hat{q}$ ). I will also discuss their implication for the coupling strength of the plasma.

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