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Spectra and Elliptic Flow of Hadrons in Nuclear Collisions In a Blast Wave Model With Shear Stress ZHIDONG YANG, RAINER J. FRIES, Cyclotron Institute and Department of Physics and Astronomy-TAMU — Collisions between heavy nuclei at high energies probe the properties of nuclear matter at high temperature and density. Hadrons observed at low transverse momenta (< 2 Gev/c) at the Relativistic Heavy Ion Collider (RHIC) and the Large Hadron Collider (LHC) imply that the hot and dense matter created at those Colliders is close to thermal equilibrium at its kinetic freeze out. Hadron observables can be described well by fluid dynamics or blast wave parameterizations. Here we present a blast wave model that incorporates corrections from finite shear stress due to the inhomogeneities in the system. We also use this model as an input to calculate hadron spectra from quark recombination at higher transverse momenta (> 2 GeV/c).

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