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## A new Riemann solver for ultrarelativistic nuclear collisions

*Tuesday 29 September 2015 16:30 (2 hours)*

We present a new shock-capturing numerical scheme for ideal relativistic hydrodynamics based on an exact solution of Riemann problem for an arbitrary equation of state. Having performed standard numerical tests such as sound wave propagation and shock tube problem, we show that the scheme has low numerical viscosity and high precision and thus is particularly suitable for modeling of ultrarelativistic nuclear collisions.

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