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Ultra Relativistic Fluid Collisions WILLIAM EAST, FRANS PRETORIUS, Princeton University, BRANSON STEPHENS, University of Wisconsin Milwaukee — We describe numerical simulations of the head-on collision of stars in the ultra relativistic regime. This work explores the idea that sufficiently boosted particles generically form black holes, as well as the competition between gravitational and hydro-dynamics. We investigate the degree to which the hoop conjecture describes the dynamics of black hole formation and the role of matter near the threshold for black hole formation.

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