On Stable Implosions

jeudi 15 janvier 2026 14:00 (1 heure)

We exhibit a new class of self-similar implosion solutions for the full compressible Euler equations. For any value of the adiabatic exponent, we construct a sequence of implosion profiles that are smooth before collapse and have an explicit similarity exponent. The first profile in this sequence (the ''ground state'') possesses remarkable stability properties, even outside of spherical symmetry. This is joint work with J. Chen (U Chicago) and S. Shkoller (UC Davis).

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