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C. David Levermore* (lvrnr@math.umd.edu). *Dispersive Navier-Stokes Systems for Gas Dynamics.*

The Navier-Stokes system for gases fail to capture the correct dynamics in all fluid regimes. The correct dynamics can be recovered by the addition of quasi-linear dispersive terms, leading to the so-called dispersive Navier-Stokes system. We will present the kinetic origins of these systems and a local well-posedness result. Dispersive regularity is used to control the new terms. The second result is joint with Weiran Sun. (Received September 13, 2013)