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Peter Constantin, Theodore Drivas and Huy Nguyen* (qn@math.princeton.edu),
Department of Mathematics, Fine Hall, Washington Road, Princeton University, Princeton, NJ
08544, and **Federico Pasqualotto**. *Global Regularity For One-Dimensional Viscous Compressible
Fluid Models With Degenerate Viscosity*.

We will discuss a family of 1D isentropic compressible Navier-Stokes type equations in which the viscosity depends on and degenerates with the "density". Applications include isentropic compressible Navier-Stokes equation for gases, shallow water waves, and a model describing slender jets of fluids. The main results include a blow-up criterion merely in terms of "density", and global regularity for large data. (Received February 14, 2018)