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Vortex Stretching and Reconnection in a Compressible Fluid BHIMSEN SHIVAMOGGI, University of Central Florida — Vortex stretching in a compressible fluid is considered. 2D and axisymmetric cases are considered separately. The flows associated with the vortices are perpendicular to the plane of the uniform straining flows. Compressibility effects are considered to be weak to facilitate an analytic solution. Vortex reconnection in a compressible fluid is briefly discussed. Applications to compressible turbulence are discussed.

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