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Turbulent mixing driven by a spherical converging shock M. LOMBARDINI, D.I. PULLIN, D.I. MEIRON, California Institute of Technology, R.A. GORE, Los Alamos National Laboratory — We present recent results from large-eddy simulations of the mixing induced at a perturbed spherical density interface initially impacted by a spherically convergent shock wave of Mach number $\simeq 1.2$ at impact, and then re-shocked in the expansive phase. Two configurations are compared: i) air inside and SF_6 (five times denser than air) outside, i.e. heavy–light configuration; ii) SF_6 inside and air outside, or light–heavy configuration. From data interpolated over spherical surfaces, we compute various power spectra as well as extensive surface-averaged statistics involved in the budget of turbulent kinetic energy and enstrophy density.

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