

Abstract Submitted
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Numerical, Dimensional, and Computational considerations in Large Eddy Simulations of the Richtmyer-Meshkov Instability¹ BRITTON OLSON, Lawrence Livermore National Laboratory — The shock induced mixing of two gases separated by a perturbed interface is investigated through Large Eddy Simulation using two different high-order numerical methods. Results from a recently published collaborative study are presented which show remarkable similarities between quantities and metrics representing mixing and turbulence. Small differences between the results, however, do elucidate the differences in the two numerical methods and their strengths and weaknesses. Results from two-dimensional calculations of the same problem are also shown to highlight differences from the three-dimensional case. Finally, the feasibility in a hybrid compressible/incompressible calculation is discussed, which shows considerable computational savings as compared to the fully compressible case.

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