

Abstract Submitted
for the DPP11 Meeting of
The American Physical Society

Measurements of turbulent Kelvin-Helmholtz growth in planar targets on OMEGA¹ V.A. SMALYUK, H.F. HANSEN, O.A. HURRICANE, H.-S. PARK, K. RAMAN, B.A. REMINGTON, H.F. ROBEY, R. WALLACE, LLNL, Y. ELBAZ, D. SHVARTS, NRC-Negev, Beer-Sheva Israel, R.P. DRAKE, C.A. DE STEFANO, D.C. MARION, C.M. KRAULAND, C.C. KURANZ, U of Michigan — Kelvin-Helmholtz (KH) growth of pre-imposed 2D single-mode and 3D broadband modulations was measured with side-on, x-ray radiography on OMEGA. In experiments, a strong, laser-driven shock wave propagates along the plane separating carbonized resorcinol foam (CRF) with a density of 0.1 g/cc and Iodine-doped polystyrene (CH) with density of 1.4 g/cc. Modulations on the foam-CH interface grow due to KH instability after the shock sets a flow of foam material along the interface. The growth results of 2D and 3D modulations will be presented along with comparisons with 2D simulations and 3D turbulent KH models.

¹This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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Date submitted: 12 Jul 2011

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