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**Shock-driven Rayleigh-Taylor/Richtmyer-Meshkov ripple evolution measurements using the split target geometry**[1] S. R. NAGEL, C. M. HUNTINGTON, S. A. MACLAREN, K. S. RAMAN, T. BAUMANN, J. BENDER, L. R. BENEDETTI, J. P. HOLDER, L. SAVAGE, R. M. SEUGLING, L. SIMMONS, P. WANG, Lawrence Livermore National Laboratory, K. A. FLIPPO, T. S. PERRY, Los Alamos National Laboratory — The study of singly or multiply shocked Rayleigh-Taylor/Richtmyer-Meshkov systems usually uses an opaque, denser material to track the perturbed interface that is driven into a lower density, more transparent material. A difficulty of this setup is the obscuration of small-scale features, especially of the lighter material by the opaque denser material, can change the mix-width measurement. To mitigate this, we use a split target where one half produces a conventional radiograph, while the other provides an inverse image, where the light material is opaque and the dense material is transparent. Here we present first measurements from re-shock experiments at the NIF, which use such a split target geometry to investigate the mix-width for initial single mode and 2D multimode perturbations.

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