

Abstract Submitted
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Characterization of shock interaction with single-void in foam on OMEGA¹ PAWEL KOZLOWSKI, YONGHO KIM, DOUGLAS WOODS, BRIAN HAINES, THOMAS DAY, THOMAS MURPHY, Los Alamos National Laboratory — The Marble campaign on NIF is performing experiments to quantify the effect of heterogeneous mix on inertial confinement fusion yield. The platform utilizes spherical foams with varying pore size to affect the heterogeneity of the mix. To verify accurate modeling of this complex target, it is necessary to understand the interaction between the driving shock and a single pore/void. The Marble void collapse platform on OMEGA addresses this need through two axis radiography of a void in a foam-filled shock tube. Pre- and post- shock interaction void shapes are extracted using computer vision analysis techniques, and subsequently compared to results from radiation-hydrodynamic simulation. LA-UR-19-26057.

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