

Abstract Submitted  
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**Initial NIF Shock Timing Experiments: Comparison with Simulation**<sup>1</sup> H.F. ROBEY, P.M. CELLIERS, LLNL, T.R. BOEHLY, LLE, P.S. DATTE, M.W. BOWERS, LLNL, R.E. OLSON, SNL, D.H. MUNRO, J.L. MILOVICH, O.S. JONES, LLNL, A. NIKROO, GA, J.J. KROLL, J.B. HORNER, A.V. HAMZA, S.D. BHANDARKAR, LLNL, E. GIRALDEZ, GA, C. CASTRO, LLNL, C.R. GIBSON, GA, J.H. EGGERT, R.F. SMITH, H.-S. PARK, B.K. YOUNG, W.W. HSING, O.L. LANDEN, LLNL, D.D. MEYERHOFER, LLE — Initial experiments are underway to demonstrate the techniques required to tune the shock timing of capsule implosions on the National Ignition Facility (NIF). These experiments use a modified cryogenic hohlraum geometry designed to precisely match the performance of ignition hohlraums. The targets employ a re-entrant Au cone to provide optical access to the shocks as they propagate in the liquid deuterium-filled capsule interior. The strength and timing of the shocks is diagnosed with VISAR (Velocity Interferometer System for Any Reflector) and DANTE. The results of these measurements will be used to set the precision pulse shape for ignition capsule implosions to follow. Experimental results and comparisons with numerical simulation are presented.

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