

Abstract Submitted
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Synergy Designs for 96 Beam Full-pulse Pre-Ignition Hohlräume¹

S. ROBERT GOLDMAN, P.A. BRADLEY, E.S. DODD, N.M. HOFFMAN, D.C. WILSON, Los Alamos National Laboratory — A major thrust in the development of 192 beam, 4 cone-angle hohlraums for NIF is the measurement, prediction, and tuning of drive symmetry with 96 beam, 2 cone-angle hohlraums within the next year, as well as the diagnosis of laser plasma interaction (LPI) conditions. Hohlräume designs to emulate relevant LPI behavior are currently available² and are being extended for scaled versions of 270 to 300 eV radiation temperature drives. We will present simulations with variable cone pointing and beam phasing for symmetry capsules in these configurations. The experiments we are designing will be crucial for demonstrating that we can measure, predict, and tune hohlraum drive symmetry in the presence of LPI under expected NIF conditions. The results should be useful for correlating the symmetry and timing of capsule implosions with laser beam propagation in the two cones.

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²NB Meezan (private communication)

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