

Abstract Submitted
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Polar-Drive Shock-Timing Measurements on OMEGA T.R. BOEHLI, V.N. GONCHAROV, S.X. HU, J.A. MAROZAS, T.C. SANGSTER, D.D. MEYERHOFER, Laboratory for Laser Energetics, U. of Rochester — Polar-drive target designs use the nonsymmetric geometry of the NIF to produce uniform direct-drive irradiation of spherical targets. We report on a series of experiments on OMEGA that measure shock timing in polar-drive geometry. The OMEGA laser beams were redirected to mimic the nonradial beam pointing needed on the NIF. The strength and timing of the shocks waves produced by multiple pulses were measured and used to infer the drive on the capsule. The results were compared to simulations and used to assess the utility of models for nonlocal heat transport and cross-beam energy transfer. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

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