

Abstract Submitted
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Measurements of Laser Imprinting Using 2-D Velocity Interferometry T.R. BOEHLY, G. FIKSEL, S.X. HU, V.N. GONCHAROV, T.C. SANGSTER, Laboratory for Laser Energetics, U. of Rochester, P.M. CELLIERS, LLNL — Evaluating laser imprinting and its effect on target performance is critical to direct-drive inertial confinement fusion research. Using high-resolution velocity interferometry, we measure modulations in the velocity of shock waves produced by the 351-nm beams on OMEGA. These modulations result from nonuniformities in the drive laser beams. We use these measurements to evaluate the effect on imprinting of multibeam irradiation and metal layers on both plastic and cryogenic deuterium targets driven with 100-ps pulses. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

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