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Optimization of Azimuthal Uniformity in NIF Polar-Drive Implosions R.S. CRAXTON, P.B. RADHA, A.K. DAVIS, D.H. FROULA, M. HOHENBERGER, P.W. MCKENTY, D.T. MICHEL, P.A. OLSON, T.C. SANGSTER, Laboratory for Laser Energetics, U. of Rochester, S. LE PAPE, T. MA, A.J. MACKINNON, LLNL — The primary method for optimizing polar-drive experiments on the National Ignition Facility (NIF) is beam repointing in the polar direction, leading to designs that are uniform in two-dimensional, azimuthally symmetric hydrodynamic simulations. However, in some cases, azimuthal variations in the deposited energy can affect the implosion uniformity and may be observable in self-emission images. Azimuthal uniformity has been investigated using the hydrodynamics code *SAGE*,[1] which includes three-dimensional ray tracing. Optimal azimuthal adjustments to the beam pointings have been developed for the ongoing LLE polar-drive campaign[2] on the NIF. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

[1]R. S. Craxton and R. L. McCrory, J. Appl. Phys. **56**, 108 (1984).
[2]P. B. Radha *et al.*, Phys. Plasmas **20**, 056306 (2013).

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