

Abstract Submitted
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Polar-Drive-Ignition Experimental Plan on the NIF D.D. MEYERHOFER, D.H. FROULA, V.N. GONCHAROV, I.V. IGUMENSHCHEV, S.J. LOUCKS, P.W. MCKENTY, R.L. MCCRORY, P.B. RADHA, T.C. SANGSTER, Laboratory for Laser Energetics, U. of Rochester — The University of Rochester's Laboratory for Laser Energetics has proposed a multi-campaign series of experiments on the National Ignition Facility (NIF)¹ to develop polar-drive ignition.² Polar drive is predicted to couple significantly more energy to the compressed core than the baseline indirect-drive approach. This presentation provides an overview of the plan to achieve polar-drive ignition on the NIF and describes the initial experiments that can be performed without changes in the NIF infrastructure. The first proposed experiments will assess the symmetry of moderate convergence ratio, polar-driven capsule implosions. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

¹E. I. Moses *et al.*, Phys. Plasmas **16**, 041006 (2009).

²S. Skupsky *et al.*, Phys. Plasmas **11**, 2763 (2004).

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