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Effect of Nonlocal Electron Transport in Both Directions on the Symmetry of Polar-Drive–Ignition Targets J.A. DELETTREZ, T.J.B. COLLINS, A. SHVYDKY, Laboratory for Laser Energetics, U. of Rochester, G. MOSES, D. CAO, U. of Wisconsin, M.M. MARINAK, LLNL — A nonlocal, multigroup diffusion model for thermal electron transport[1] has been added to the 2-D hydrodynamic code *DRACO*. This model has been applied to simulations of polar-drive (PD) NIF ignition designs. Previous simulations were carried out with a constant flux-limiter model in both the radial and transverse directions. Due to the nonsymmetry of PD illumination, these implosions suffer from low-mode nonuniformities that affect their performance. Nonlocal electron transport in both directions is expected to reduce these nonuniformities. The 2-D thermal electron flux from simulations, using either the nonlocal model or the standard flux-limited approach, will be compared and the effect of the nonlocal transport model on the growth of the nonuniformities and on target performance will be presented. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

[1]G. P. Schurtz, Ph. D. Nicolaï, and M. Busquet, Phys. Plasmas **7**, 4238 (2000).

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