

Abstract Submitted  
for the DPP08 Meeting of  
The American Physical Society

**Hohlraum Design and Capsule Illumination Asymmetry for Fast Ignitor**<sup>1</sup> DARWIN HO, MAX TABAK, GEORGE ZIMMERMAN, PETER AMENDT, JUDY HARTE, Lawrence Livermore National Laboratory — In this paper, we present hohlraum design and 2-D capsule symmetry calculations for a fast ignitor in Inertial Fusion Energy applications. A hohlraum configuration with low laser incidence angle (between 10 to 20 degree) is designed using the view-factor code GERTIE. Time dependent capsule and wall albedos are obtained from 1-D LASNEX calculations. Time dependent capsule illumination asymmetry on the capsule is obtained by changing the hohlraum configuration, albedo, and capsule radius with time in the GERTIE calculations. Hohlraum configurations with two to four rings of laser illumination from two sides will be presented. The two-ring configuration has a gain of about 30, and the three and four ring configurations have gain above 40. Putting short tubes in front of the laser entrance holes can reduce the hole loss by more than 50%.

<sup>1</sup>This work was performed under the auspices of the U.S. DOE by the University of California, LLNL under contract No. W-7405-Eng-48.

Darwin Ho  
Lawrence Livermore National Laboratory

Date submitted: 17 Jul 2008

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