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**Determination of Size and Shape of Imploding Polar-Driven Targets on OMEGA from X-Ray Images** F.J. MARSHALL, R. EPSTEIN, P.W. MCKENTY, J.A. MAROZAS, P.B. RADHA, S. TO, Laboratory for Laser Energetics, U. of Rochester — This talk will describe the method for determining the size and shape of the imploding polar-driven targets on OMEGA from framed x-ray images of the plasma self-emission or of backlighter emission absorbed by the plasma. Accurate low-mode fits to the images are accomplished in the presence of both neutron-induced noise and inherent framing-camera noise. The same fitting procedure is used on *DRACO* 2-D hydrodynamic simulations allowing for comparisons that take into account the spatial and temporal resolution of the experimentally determined measurements. Radiographs obtained on OMEGA with high-speed framing cameras have obtained the evolution of the low Legendre modes with 30-ps frame-to-frame intervals and with accuracies of  $\sim 1\%$  of the radius. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

D.D. Meyerhofer  
Laboratory for Laser Energetics, U. of Rochester

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