Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

**Recent Progress in Target Metrology at General Atomics** HAIBO HUANG, KYLE ENGELHORN, KEVIN SEQUOIA, KURT BOEHM, HONGWEI XU, JAVIER JAQUEZ, ANNETTE GREENWOOD, JAY CRIPPEN, CASEY KONG, NEAL RICE, CHRISTOPHER REED, FRED ELSNER, MIKE FARRELL, General Atomics — Targets are central to all ICF/HED programs. Many target specifications are so tight or specialized that the measurements cannot be performed on commercial equipment. General Atomics continues to provide on-demand target metrology development to support the evolving needs of the community. In this talk, we will present our latest efforts in new instrument design, equipment automation and data analysis technique development. Examples include a dark-field imaging algorithm to measure ablator defects down to 0.1um size required by Laboratory for Laser Energetics direct drive program, a full-surface wall-thickness mapper that enables polystyrene shell development, an integrated set up for GDP dome mapping and removal, an automated x-ray absorption spectroscope to improve the precision and accuracy of dopant measurement, a hohlraum interior surface inspection technique, optical transmission characterization of thin metallic films for micro-dots hohlraum diagnostic platform, new high-resolution NEXIV pin-hole array characterization, etc.

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Date submitted: 17 Jul 2017 Electronic form version 1.4