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CT Analysis of Double Shell Targets[1] ABIGAIL LOUISE FERRIS[2], Duquesne University, LINDSEY KUETTNER, ERIC LOOMIS, TANA CARDENAS, PAUL KEITER, Los Alamos National Laboratory — Double shell capsules are an alternative to the single shell method of inertial confinement (ICF). Double shell experiments are being performed on the National Ignition Facility (NIF) to measure symmetry of Al outer shells driven by x-ray radiation. It is important to observe the symmetry of the capsule, as we want the implosion to be as round as possible to maximize the yield. The initial conditions of the capsule may have a significant impact on the evolution of the capsule. After the shells are assembled we take CT scans of them. We have been using MATLAB routines to analyze the target CT data. Specifically, we have utilized spherical harmonics to fit inner and outer surface measurements, in order to determine how asymmetries in the capsule present initially. This data will be used in conjunction with simulations to explore the impact the asymmetries have on the experiment.

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