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Measurements of hydrodynamic instability growth with 3-D capsule modulation at NIF V.A. SMALYUK, S.V. WEBER, D.T. CASEY, D.S. CLARK, J. FIELD, S.W. HAAN, H.F. ROBEY, LLNL, A. NIKROO, N. RICE, GA — Repla Instability growth measurements of 3-D capsule modulations were performed at NIF. Ignition-scale, CH ablator capsules were imploded with ignition-relevant drives. Modulation growth was measured by inflight radiography through a reentrant keyhole near peak velocity of imploding shells. Shells with either native roughness or outer surface roughness enhanced by a factor of about four were used in the experiments. Comparison of measured and simulated radiographs will be presented. This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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