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**Capsule time dependent drive symmetry in a rugby shaped hohlraum with a 3D laser irradiation drive experiment on OMEGA** VERONIQUE TASSIN, RAPHAEL RIQUIER, FRANCK PHILIPPE, LAURENT JACQUET, CEA-DAM-DIF, F-91297 Arpajon, France, ISABELLE GEOFFRAY, CEA-DAM-Valduc, F-21120 Is-sur-Tille, France, MICHEL FERRI, CEA-DAM-CESTA, F-33114 Le Barp, France — Significant calculation benefits can be obtained from a 3D radiation-hydrodynamics code compared to a 2D rad-hydro code. This is the main reason that has encouraged CEA-DAM to develop the 3D radiation-hydrodynamics code TROLL. While the TROLL code has already been challenged by numerous 3D hohlraum experiments, questions remained about its capability to simulate indirect drive implosions with a poor azimuthal irradiation symmetry. In this context, an experiment has been conducted on OMEGA laser facility (LLE, University of Rochester) to validate the 3D radiation-hydrodynamics code TROLL. A rugby hohlraum was driven either by 18 beams at full power (asymmetric radiation drive) or by 30 beams at 3/5 power (symmetric radiation drive) to keep hohlraum energetics constant. We have studied the effects of asymmetry with three types of targets: reemission high-Z spheres for early time, foamballs for intermediate time and D2-filled capsules for late time symmetry measurement. Experimental results will be compared with 3D radiation-hydrodynamics code TROLL.

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