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Asymetrically driven implosion experiment on the Laser MégaJoule FRANCK PHILIPPE, PATRICIA SEYTOR, VERONIQUE TASSIN, RUDOLF ROSCH, BRUNO VILLETTE, CEA, DAM, DIF, Arpajon F-91297, France — We report on the results of the first implosion experiments performed on the Laser MégaJoule (LMJ) facility. Their main purpose was to study implosion with large polar asymmetries of incident radiative flux on a capsule, while preserving azimuthal symmetry, in the context of ICF. In these experiments, one quad of LMJ is focused axially on a gold shield inside a hohlraum. The shield effectively divides the hohlraum in two compartments, and a capsule placed in the second compartment is indirectly driven by the x-ray flux generated in the first one. The subsequent asymmetric implosion is backlit by an x-ray source generated by another quad of LMJ and imaged with an x-ray microscope coupled to a framing camera. Timegated x-ray radiographs of the imploding capsule and diode array measurements of the hohlraum x-ray emission are found to be in good agreement with FCI2 radiative hydrodynamics simulations.

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