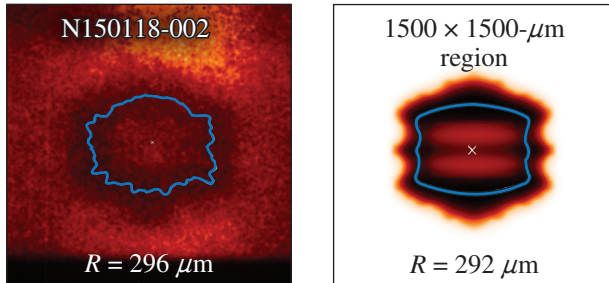


About the Cover:

The cover photo highlights scientist Dr. Radha Bahukutumbi presenting results from simulations and experiments at the National Ignition Facility (NIF). In the background are projections of the simulated scattered light from a NIF implosion without (top) and with (bottom) cross-beam energy transfer (CBET). Measurements of scattered light in the NIF chamber can shed light on this process that can compromise the pressure that sets up the drive and the velocity of the imploding shell.



The figure on the left shows the measured and simulated radiograph, respectively, of an imploding shell on the NIF viewed from the equator using an iron backlighter and a gated framing camera. Simulations closely reproduce the measured shapes, indicating that the laser-deposition process (including the effect of CBET) and heat conduction to the ablation surface are modeled relatively well. This validation of the code is important for predictions of target performance in MJ-scale plasmas such as those in NIF implosions.

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