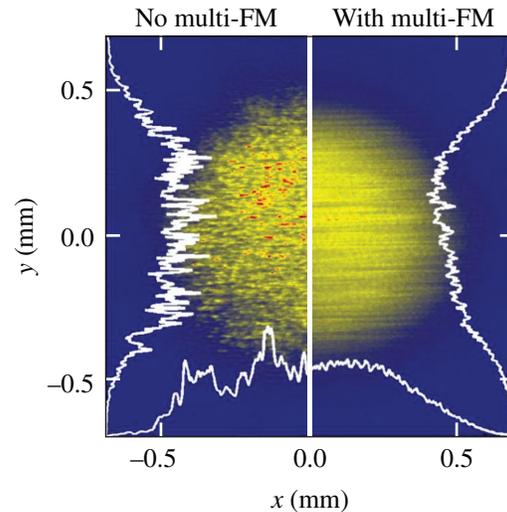


About the Cover:

The cover photo highlights some of the contributors to laser development and operation for the demonstration of 1-D multi-FM smoothing by spectral dispersion on OMEGA EP. The Laser-Technology Development group [J. Zuegel, R. Cuffney, A. Okishev, I. Begishev, C. Dorrer, and R. Roides (not pictured)]; System Science group (B. Kruschwitz and J. Kelly); Electronics group (W. Bittle and G. Kick); and Laser Sources group (E. Hill, A. Consentino, and G. Balonek) were involved in designing, building, and operating systems to support the multi-FM smoothing demonstration, with primary goals of safe operation on a NIF-like system and characterization of beam-smoothing performance.



The picture on the left shows Rick Roides making adjustments to the fiber front end built to support the demonstration of multi-FM beam smoothing on OMEGA EP. The figure on the right presents equivalent-target-plane measurements of the OMEGA EP focal spot after frequency conversion, propagation in a distributed phase plate, and focusing. High-contrast speckles are observed without smoothing by spectral dispersion, but significant beam smoothing is demonstrated with multi-FM phase modulation and a diffraction grating in the NIF preamplifier module.

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