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**Hydrodynamic Jet Experiments at LLE** J.P. KNAUER, S. SUBLETT, R.S. CRAXTON, T.J.B. COLLINS, I.V. IGUMENSHCHEV, D.D. MEYERHOFER, A. FRANK, University of Rochester, R.P. DRAKE, University of Michigan — Observed jet and jet-like morphologies range from highly collimated flows associated with young stellar objects and active galactic nuclei to less-collimated flows associated with planetary nebulae. A technique, where seven beams from the OMEGA laser are incident onto a mid- $Z$  plug embedded in a tungsten washer and two beams are used to generate x rays for radiography, is used to study jet outflows. An adiabatic model<sup>1</sup> best describes jet propagation. Episodic flows are created using double-pulse laser irradiation and show a different jet structure with more material along the jet stem. Episodic experiments have been designed for the OMEGA EP Laser System where the time between outflows can be made comparable to the hydrodynamic evolution time. 2-D Eulerian hydrodynamic simulations both model OMEGA and design OMEGA EP experiments. <sup>1</sup>E. C. Ostriker *et al.*, ApJ **557**, 443 (2001). This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

James Knauer  
University of Rochester

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