

## About the Cover:

Inertial confinement fusion research at the OMEGA Laser Facility utilizes optical pulses delivered as 60 separate beams to compress target capsules and create the high temperatures and pressures necessary to initiate the reaction. Accurate measurement of the energy time history of each pulse is critical in adjusting the laser system to achieve maximum performance and to the interpretation of the results from each experimental target shot. LLE has recently completed development and installation of a suite of six multichannel streak cameras that are capable of making measurements over the wide energy range that is of interest with the necessary time resolution. Calibration features built into each camera coupled with extensive operation, data reduction, and maintenance software allow the suite to precisely diagnose each beam as a routine part of laser facility operations. On the cover, Dr. William Donaldson, Sr. Scientist, reviews calibrated images of 30 one-nanosecond beam pulses acquired by the bank of cameras shown here. A second identical bank supports the other 30 OMEGA beams. The article "A Self-Calibrating, Multi-channel Streak Camera for Inertial Confinement Fusion Applications" (p. 109) describes this system in detail.



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The work described in this volume includes current research at the Laboratory for Laser Energetics, which is supported by New York State Energy Research and Development Authority, the University of Rochester, the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC03-92SF19460, and other agencies.

Printed in the United States of America  
Available from  
National Technical Information Services  
U.S. Department of Commerce  
5285 Port Royal Road  
Springfield, VA 22161

For questions or comments, contact Thomas H. Hinterman, *Editor*, Laboratory for Laser Energetics, 250 East River Road, Rochester, NY 14623-1299, (716) 275-0866.

Price codes: Printed Copy A04  
Microfiche A01

Worldwide-Web Home Page: <http://www.lle.rochester.edu/>