

Publications and Conference Presentations

Publications

- A. Antikainen and G. P. Agrawal, "Supercontinuum Generation in Seven-Core Fibers," *J. Opt. Soc. Am. B* **36**, 2927 (2019).
- P. T. Campbell, D. Canning, A. E. Hussein, K. D. W. Ratnayaka, A. G. R. Thomas, K. Krushelnick, and L. Willingale, "Proton Beam Emittance Growth in Multipicosecond Laser-Solid Interactions," *New J. Phys.* **21**, 103021 (2019).
- A. S. Davies, D. Haberberger, J. Katz, S. Bucht, J. P. Palastro, R. K. Follett, and D. H. Froula, "Investigation of Picosecond Thermodynamics in a Laser-Produced Plasma Using Thomson Scattering," *Plasma Phys. Control. Fusion* **62**, 014012 (2020).
- C. Fagan, M. Sharpe, W. T. Shmayda, and W. U. Schröder, "Tritium Retention in Hexavalent Chromate-Conversion-Coated Aluminum Alloy," *Fusion Sci. Technol.* **75**, 1058 (2019).
- S. R. Fairchild, Y. Liu, J. Palastro, and J. Peñano, "Laser Filamentation and Applications: Introduction," *J. Opt. Soc. Am. B* **36**, LFA1 (2019).
- P. Franke, D. Turnbull, J. Katz, J. P. Palastro, I. A. Begishev, J. Bromage, J. L. Shaw, R. Boni, and D. H. Froula, "Measurement and Control of Large Diameter Ionization Waves of Arbitrary Velocity," *Opt. Express* **27**, 31978 (2019).
- T. Gong, H. Habara, K. Sumioka, M. Yoshimoto, Y. Hayashi, S. Kawazu, T. Otsuki, T. Matsumoto, T. Minami, K. Abe, K. Aizawa, Y. Enmei, Y. Fujita, A. Ikegami, H. Makiyama, K. Okazaki, K. Okida, T. Tsukamoto, Y. Arikawa, S. Fujioka, Y. Iwasa, S. Lee, H. Nagatomo, H. Shiraga, K. Yamanoi, M. S. Wei, and K. A. Tanaka, "Direct Observation of Imploded Core Heating via Fast Electrons with Super-Penetration Scheme," *Nat. Commun.* **10**, 5614 (2019).
- G. Guidarelli, J. Nordhaus, L. Chamandy, Z. Chen, E. G. Blackman, A. Frank, J. Carroll-Nellenback, and B. Liu, "Hydrodynamic Simulations of Disrupted Planetary Accretion Discs Inside the Core of an AGB Star," *Mon. Not. R. Astron. Soc.* **490**, 1179 (2019).
- D. Haberberger, A. Shvydky, V. N. Goncharov, D. Cao, J. Carroll-Nellenback, S. X. Hu, S. T. Ivancic, V. V. Karasiev, J. P. Knauer, A. V. Maximov, and D. H. Froula, "Plasma Density Measurements of the Inner Shell Release," *Phys. Rev. Lett.* **123**, 235001 (2019).
- A. M. Hansen, D. Turnbull, J. Katz, and D. H. Froula, "Mitigation of Self-Focusing in Thomson Scattering Experiments," *Phys. Plasmas* **26**, 103110 (2019).
- M. H. Helle, G. DiComo, S. Gregory, A. Mamonau, D. Kaganovich, R. Fischer, J. Palastro, S. Melis, and J. Peñano, "Beating Optical-Turbulence Limits Using High-Peak-Power Lasers," *Phys. Rev. Appl.* **12**, 054043 (2019).
- S. X. Hu, R. Epstein, W. Theobald, H. Xu, H. Huang, V. N. Goncharov, S. P. Regan, P. W. McKenty, R. Betti, E. M. Campbell, and D. S. Montgomery, "Direct-Drive Double-Shell Implosion: A Platform for Burning-Plasma Physics Studies," *Phys. Rev. E* **100**, 063204 (2019).
- T. Z. Kosc, A. A. Kozlov, S. Papernov, K. R. P. Kafka, K. L. Marshall, and S. G. Demos, "Investigation of Parameters Governing Damage Resistance of Nematic Liquid Crystals for High-Power or Peak-Intensity Laser Applications," *Sci. Rep.* **9**, 16435 (2019).
- J. Levesque, C. Kuranz, T. Handy, M. Manuel, and F. Fiuza, "Characterizing Filamentary Magnetic Structures in Counter-Streaming Plasmas by Fourier Analysis of Proton Images," *Phys. Plasmas* **26**, 102303 (2019).
- J. F. Myatt, J. G. Shaw, R. K. Follett, D. H. Edgell, D. H. Froula, J. P. Palastro, and V. N. Goncharov, "LPSE: A 3-D Wave-Based Model of Cross-Beam Energy Transfer in Laser-Irradiated Plasmas," *J. Comp. Phys.* **399**, 108916 (2019).
- J. M. Ngoko Djiokap, A. V. Meremianin, N. L. Manakov, L. B. Madsen, S. X. Hu, and A. F. Starace, "Molecular Symmetry-Mixed Dichroism in Double Photoionization of H₂," *Phys. Rev. Lett.* **123**, 143202 (2019).

C. E. Parker, J. A. Frenje, O. H. W. Siegmund, C. J. Forrest, V. Yu. Glebov, J. D. Kendrick, C. W. Wink, M. Gatu Johnson, T. J. Hilsabeck, S. T. Ivancic, J. Katz, J. D. Kilkenny, B. Lahmann, C. K. Li, F. H. Séguin, C. M. Sorce, C. Trosseille, and R. D. Petrasso, “Response of a Lead-Free Borosilicate-Glass Microchannel Plate to 14-MeV Neutrons and γ -Rays,” *Rev. Sci. Instrum.* **90**, 103306 (2019).

R. Paul, S. X. Hu, and V. V. Karasiev, “Crystalline Phase Transitions and Vibrational Spectra of Silicon up to Multiterapascal Pressures,” *Physical Review B* **100**, 144101 (2019).

J. J. Ruby, J. R. Rygg, J. A. Gaffney, B. Bachmann, and G. W. Collins, “A Boundary Condition for Guderley’s Converging Shock Problem,” *Phys. Fluids* **31**, 126104 (2019).

E. M. Schiesser, S.-W. Bahk, J. Bromage, and J. P. Rolland, “Design and Alignment of an All-Spherical Unobscured Four-Mirror Image Relay for an Ultra-Broadband Sub-Petawatt Laser,” *Appl. Optics* **58**, 9514 (2019).

E. M. Schiesser, A. Bauer, and J. P. Rolland, “Effect of Freeform Surfaces on the Volume and Performance of Unobscured Three Mirror Imagers in Comparison with Off-Axis Rotationally Symmetric Polynomials,” *Opt. Express* **27**, 21,750 (2019).

E. M. Schiesser, A. Bauer, and J. P. Rolland “Estimating Field-Dependent Nodal Aberration Theory Coefficients from Zernike Full-Field Displays by Utilizing Eight-Order Astigmatism,” *J. Opt. Soc. Am. A* **36**, 2115 (2019).

M. Sharpe, C. Fagan, and W. T. Shmayda, “Distribution of Tritium in the Near Surface of Type 316 Stainless Steel,” *Fusion Sci. Technol.* **75**, 1053 (2019).

W. T. Shmayda, C. R. Shmayda, and G. Torres, “Tritium Extraction from Water,” *Fusion Sci. Technol.* **75**, 1030 (2019).

F. Soubiran, F. González-Cataldo, K. P. Driver, S. Zhang, and B. Militzer, “Magnesium Oxide at Extreme Temperatures and Pressures Studied with First-Principles Simulations,” *J. Chem. Phys.* **151**, 214104 (2019).

L. L. Taylor, J. Xu, M. Pomerantz, T. R. Smith, J. C. Lambropoulos, and J. Qiao, “Femtosecond Laser Polishing of Germanium,” *Opt. Mater. Express* **9**, 4165 (2019) (invited).

H. Wen, A. V. Maximov, R. Yan, J. Li, C. Ren, and F. S. Tsung, “Three-Dimensional Particle-in-Cell Modeling of Parametric Instabilities Near the Quarter-Critical Density in Plasmas,” *Physical Review E* **100**, 041201(R) (2019).

K. Werner, V. Gruzdev, N. Talisa, K. Kafka, D. Austin, C. M. Liebig, and E. Chowdhury, “Single-Shot Multi-Stage Damage and Ablation of Silicon by Femtosecond Mid-infrared Laser Pulses,” *Sci. Rep.* **9**, 19993 (2019).

A. B. Zylstra, H. W. Herrmann, Y. H. Kim, A. McEvoy, K. Meaney, V. Yu. Glebov, C. Forrest, and M. Rubery, “Improved Calibration of the OMEGA Gas Cherenkov Detector,” *Rev. Sci. Instrum.* **90**, 123504 (2019)

A. B. Zylstra, H. G. Rinderknecht, J. A. Frenje, C. K. Li, and R. D. Petrasso, “Modified Parameterization of the Li-Petrasso Charged-Particle Stopping Power Theory,” *Phys. Plasmas* **26**, 122703 (2019).

Forthcoming Publications

M. Bailly-Grandvaux, J. Kim, C. M. Krauland, S. Zhang, M. Dozières, M. S. Wei, W. Theobald, P. E. Grabowski, J. J. Santos, Ph. Nicolai, P. McKenna, M. P. Desjarlais, and F. N. Beg, “Transport of kJ-Laser-Driven Relativistic Electron Beams in Cold and Shock-Heated Vitreous Carbon and Diamond,” to be published in the *New Journal of Physics*.

X. Bian, H. Aluie, D. Zhao, H. Zhang, and D. Livescu, “Revisiting the Late-Time Growth of Single-Mode Rayleigh–Taylor Instability and the Role of Vorticity,” to be published in *Physica D: Nonlinear Phenomena*.

L. E. Chen, A. F. A. Bott, P. Tzeferacos, A. Rigby, A. Bell, R. Bingham, C. Graziani, J. Katz, M. Koenig, C. K. Li, R. Petrasso, H.-S. Park, J. S. Ross, D. Ryu, T. G. White, B. Reville, J. Matthews, J. Meinecke, F. Miniati, E. G. Zweibel, S. Sarkar, A. A. Schekochihin, D. Q. Lamb, D. H. Froula, and G. Gregori, “Transport of High-Energy Charged Particles Through Spatially Intermittent Turbulent Magnetic Fields,” to be published in the *Astrophysical Journal*.

S. Depierreux, C. Neuville, V. Tassin, M.-C. Monteil, P.-E. Masson-Laborde, C. Baccou, P. Fremerye, F. Philippe,

- P. Seytor, D. Teychenné, J. Katz, R. Bahr, M. Casanova, N. Borisenko, L. Borisenko, A. Orekhov, A. Colaitis, A. Debayle, G. Duchateau, A. Heron, S. Huller, P. Loiseau, P. Nicolai, C. Riconda, G. Tran, C. Stoeckl, W. Seka, V. Tikhonchuk, D. Pesme, and C. Labaune, “Experimental Investigation of the Collective Stimulated Brillouin and Raman Scattering of Multiple Laser Beams in Inertial Confinement Fusion Experiments,” to be published in *Plasma Physics and Controlled Fusion*.
- C. Dorrer, E. M. Hill, and J. D. Zuegel, “High-Energy Parametric Amplification of Spectrally Incoherent Broadband Pulses,” to be published in *Optics Express*.
- M. Dozières, S. Hansen, P. Forestier-Colleoni, C. McGuffey, D. Kawahito, M. Bailly-Grandvaux, K. Bhutwala, C. M. Krauland, M. S. Wei, P. Gourdain, J. R. Davies, K. Matsuo, S. Fujioka, E. M. Campbell, J. L. Peebles, J. J. Santos, D. Batani, S. Zhang, and F. N. Beg, “Characterization of an Imploding Cylindrical Plasma for Electron Transport Studies Using X-Ray Emission Spectroscopy,” to be published in *Physics of Plasmas*.
- C. Fagan, M. Sharpe, W. T. Shmayda, and W. U. Schröder, “Thin-Alumina Film as a Tritium Adsorption Inhibitor for Stainless-Steel 316,” to be published in *Fusion Science and Technology*.
- M. Gatu Johnson, P. J. Adrian, K. S. Anderson, B. D. Appelbe, J. P. Chittenden, A. J. Crilly, D. Edgell, C. J. Forrest, J. A. Frenje, V. Yu. Glebov, B. M. Haines, I. Igumenshchev, D. Jacobs-Perkins, R. Janezic, N. V. Kabadi, J. P. Knauer, B. Lahmann, O. M. Mannion, F. J. Marshall, T. Michel, F. H. Séguin, R. Shah, C. Stoeckl, C. A. Walsh, and R. D. Petrasso, “Impact of Stalk on Directly Driven Inertial Confinement Fusion Implosions,” to be published in *Physics of Plasmas*.
- M. J. Guardalben, M. Barczys, B. E. Kruschwitz, M. Spilatro, L. J. Waxer, and E. M. Hill, “Laser System Model for Enhanced Operational Performance and Flexibility on OMEGA EP,” to be published in *High Power Laser Science and Engineering*.
- B. M. Haines, R. C. Shah, J. M. Smidt, B. J. Albright, T. Cardenas, M. R. Douglas, C. Forrest, V. Yu. Glebov, M. A. Gunderson, C. E. Hamilton, K. C. Henderson, Y. Kim, M. N. Lee, T. J. Murphy, J. A. Oertel, R. E. Olson, B. M. Patterson, R. B. Randolph, and D. W. Schmidt, “Observation of Persistent Species Temperature Separation in Inertial Confinement Fusion Mixtures,” to be published in *Nature Communications*.
- V. V. Ivanov, A. V. Maximov, A. L. Astanovitskiy, I. A. Begishev, R. Betti, J. R. Davies, C. Mileham, J. D. Moody, C. Stoeckl, K. J. Swanson, N. L. Wong, and J. Bromage, “Study of Laser-Driven Magnetic Fields with a Continuous Wave Faraday Rotation Diagnostic,” to be published in *Physics of Plasmas*.
- T. Z. Kosc, H. Huang, T. J. Kessler, A. Maltsev, and S. G. Demos, “Measurement of the Angular Dependence of the Spontaneous Raman Scattering in Anisotropic Crystalline Materials Using Spherical Samples: Potassium Dihydrogen Phosphate as a Case Example,” to be published in *Review of Scientific Instruments*.
- L. S. Leal, A. V. Maximov, R. Betti, A. B. Sefkow, and V. V. Ivanov, “Modeling Magnetic Confinement of Laser-Generated Plasma in Cylindrical Geometry Leading to Disk-Shaped Structures,” to be published in *Physics of Plasmas*.
- K. Luo, V. V. Karasiev, and S. B. Trickey, “Towards Accurate Orbital-Free Simulations: A Generalized Gradient Approximation for the Noninteracting Free Energy Density Functional,” to be published in *Physical Review B*.
- S. MacNally, C. Smith, J. Spaulding, J. Foster, and J. B. Oliver, “Glancing-Angle-Deposited Silica Films for Ultraviolet Wave Plates,” to be published in *Applied Optics*.
- O. M. Mannion, J. P. Knauer, V. Yu. Glebov, C. J. Forrest, A. Liu, Z. L. Mohamed, M. H. Romanofsky, T. C. Sangster, C. Stoeckl, and S. P. Regan, “A Suite of Neutron Time-of-Flight Detectors to Measure Hot-Spot Motion in Direct-Drive Inertial Confinement Fusion Experiments on OMEGA,” to be published in *Nuclear Instruments and Methods in Physics Research A: Accelerators, Spectrometers, Detectors, and Associated Equipment*.
- A. L. Milder, H. Le, M. Sherlock, P. Franke, J. Katz, S. T. Ivancic, J. L. Shaw, J. P. Palastro, A. M. Hansen, I. A. Begishev, W. Rozmus, and D. H. Froula, “Evolution of the Electron Distribution Function in the Presence of Inverse Bremsstrahlung Heating and Collisional Ionization,” to be published in *Physical Review Letters*.
- M. Millot, S. Zhang, D. E. Fratanduono, F. Coppari, S. Hamel, B. Militzer, D. Simonova, S. Shcheka, N. Dubrovinskaia, L. Dubrovinsky, and J. H. Eggert, “Recreating Giant Impacts in the Laboratory: Shock Compression of MgSiO₃ Bridgmanite to 14 Mbar,” to be published in *Geophysical Research Letters*.
- J. Nilsen, A. L. Kritcher, M. E. Martin, R. E. Tipton, H. D. Whitley, D. C. Swift, T. Döppner, B. L. Bachmann, A. E.

Lazicki, N. B. Kostinski, B. R. Maddox, G. W. Collins, S. H. Glenzer, and R. W. Falcone, "Understanding the Effects of Radiative Preheat and Self-Emission from Shock Heating on Equation of State Measurement at 100s of Mbar Using Spherically Converging Shock Waves in a NIF Hohlräum," to be published in *Matter and Radiation at Extremes*.

J. B. Oliver, A. L. Rigatti, T. Noll, J. Spaulding, J. Hettrick, V. Gruschow, G. Mitchell, D. Sadowski, C. Smith, and B. Charles, "Large-Aperture Coatings for Fusion-Class Laser Systems," to be published in *Applied Optics*.

J. B. Oliver, J. Spaulding, and B. Charles, "Stress Compensation by Deposition of a Nonuniform Corrective Coating," to be published in *Applied Optics*.

J. P. Palastro, J. L. Shaw, P. Franke, D. Ramsey, T. T. Simpson, and D. H. Froula, "Dephasingless Laser Wakefield Acceleration," to be published in *Physical Review Letters*.

V. A. Smalyuk, C. R. Weber, O. L. Landen, S. Ali, B. Bachmann, P. M. Celliers, E. L. Dewald, A. Fernandez, B. A. Hammel, G. Hall, A. G. MacPhee, L. Pickworth, H. F. Robey, N. Alfonso, K. L. Baker, L. F. Berzak Hopkins, L. Carlson, D. T. Casey, D. S. Clark, J. Crippen, L. Divol, T. Döppner, M. J. Edwards, M. Farrell, S. Felker, J. E. Field, S. W. Haan, A. V. Hamza, M. Havre, M. C. Herrmann, W. W. Hsing, S. Khan, J. Kline, J. J. Kroll, S. LePape, E. Loomis, B. J. MacGowan, D. Martinez, L. Masse, M. Mauldin, J. L. Milovich, A. S. Moore, A. Nikroo, A. Pak, P. K. Patel, J. L. Peterson, K. Raman, B. A. Remington, N. Rice, M. Schoff, and M. Stadermann, "Review of Hydrodynamic Instability Experiments in Inertially Confined Fusion Implosions on the National Ignition Facility," to be published in *Plasma Physics and Controlled Fusion*.

C. Smith, S. MacNally, and J. B. Oliver, "Ellipsometric Modeling of Serially Bi-Deposited Glancing-Angle-Deposition Coatings," to be published in *Applied Optics*.

R. Sobolewski, "Optical Detectors and Sensors," to be published in the *Handbook of Superconducting Materials*.

W. Theobald, C. Sorce, W. R. Donaldson, R. Epstein, R. L. Keck, C. Kellogg, T. J. Kessler, J. Kwiatkowski, F. J. Marshall, S. Sampat, W. Seka, R. C. Shah, A. Shvydky, C. Stoeckl, L. J. Waxer, and S. P. Regan, "Inferred UV Fluence Focal-Spot Profiles from Soft X-Ray Pinhole-Camera Measurements on OMEGA," to be published in *Review of Scientific Instruments*.

D. Turnbull, A. Colaitis, A. M. Hansen, A. L. Milder, J. P. Palastro, J. Katz, C. Dorrer, B. E. Kruschwitz, D. J. Strozzi, and D. H. Froula, "Impact of the Langdon Effect on Cross-Beam Energy Transfer," to be published in *Nature Physics*.

J. Zhang, R. Wei, M. Elkabbash, E. M. Campbell, and C. Guo, "Thin-Film Perfect Infrared Absorbers over Single- and Dual-Band Atmospheric Windows," to be published in *Optics Letters*.

S. Zhang, C. M. Krauland, J. Peebles, J. Li, F. N. Beg, N. Alexander, W. Theobald, R. Betti, D. Haberberger, E. M. Campbell, R. Yan, E. Borwick, C. Ren, and M. S. Wei, "Experimental Study of Hot-Electron Generation in Shock-Ignition Relevant High-Intensity Regime with Large-Scale Hot Plasmas," to be published in *Physics of Plasmas*.

Y. Zhao and W. R. Donaldson, "Ultrafast UV AlGa_N Metal-Semiconductor-Metal Photodetector with a Response Time Below 25 ps," to be published in the *IEEE Journal of Quantum Electronics*.

A. B. Zylstra, J. R. Rygg, G. W. Collins, C. K. Li, J. A. Frenje, R. D. Petrasso, S. R. Nagel, P. Fitzsimmons, and H. Reynolds, "Platform Development for dE/dx Measurements on Short-Pulse Laser Facilities," to be published in *High Energy Density Physics*.

Conference Presentations

W. Theobald, “Review of the LLE-CELIA Shock-Ignition Collaboration over the Last Ten Years,” presented at the CELIA Anniversary, Talence, France, 1 October 2019.

C. Dorrer and S.-W. Bahk, “Characterization of Spatiotemporal Coupling with Multispectral Hartmann Wavefront Sensor,” presented at Ultrafast Optics XII, Bol, Croatia, 6–11 October 2019.

M. S. Wei, J. D. Zuegel, H. G. Rinderknecht, J. Bromage, P. M. Nilson, S. X. Hu, D. H. Froula, F. Albert, B. M. Hegelich, M. Roth, and E. M. Campbell, “EP OPAL: A Multibeam Ultrahigh-Intensity Laser User Facility for New Frontiers in High-Energy-Density and Relativistic Physics,” presented at the First ELI-NP User Workshop, Magurele, Romania, 7–11 October 2019.

M. S. Wei, “LaserNetUS,” presented at the Laserlab Conference, Florence, Italy, 11 October 2019.

C. J. Forrest, V. Yu. Glebov, J. P. Knauer, O. M. Mannion, Z. Mohamed, P. B. Radha, S. P. Regan, T. C. Sangster, A. Schwemmlin, C. Stoeckl, W. U. Schröder, and G. M. Hale, “Inelastic Reaction of 14-MeV Neutrons with ${}^7\text{Li}$,” presented at the APS Division of Nuclear Physics Fall Meeting, Arlington, VA, 14–17 October 2019.

The following presentations were made at the 61st Meeting of the American Physical Society Division of Plasma Physics, Fort Lauderdale, FL, 21–25 October 2019:

K. S. Anderson, J. A. Marozas, D. Cao, C. J. Forrest, O. M. Mannion, R. C. Shah, P. B. Radha, F. J. Marshall, T. J. B. Collins, J. P. Knauer, V. N. Goncharov, and M. Gatu Johnson, “Cross-Beam Energy Transfer in Offset Implosions on OMEGA.”

Z. Barfield, D. H. Froula, and J. L. Peebles, “The Study of Thermal Transport in Magnetized Laser-Produced Plasmas.”

D. Barnak, K. Flippo, C. Kawaguchi, K. Kelso, H. Li, S. Li, E. Loomis, Y. Lu, N. Vazirani, A. Birkel, B. Lahmann, and C. K. Li, “Impact of Self-Generated B-Fields on High-Energy-Density Experiments.”

G. Bruhaug, H. G. Rinderknecht, M. S. Wei, G. W. Collins, J. R. Rygg, and J. L. Shaw, “An Investigation of Monoenergetic Electron Beams for High-Energy-Density and Inertial Confinement Fusion Diagnostics.”

D. Cao, D. Patel, M. J. Rosenberg, W. Theobald, C. Stoeckl, A. R. Christopherson, I. V. Igumenshchev, V. Gopalaswamy, S. P. Regan, C. Thomas, P. B. Radha, R. Betti, and V. N. Goncharov, “Implosion Designs Varying Hot-Electron Production for Direct-Drive Inertial Confinement Fusion Implosions on OMEGA.”

A. R. Christopherson, R. Betti, W. Theobald, C. J. Forrest, M. Wei, E. M. Campbell, J. Howard, M. J. Rosenberg, A. A. Solodov, D. Patel, J. A. Delettrez, C. Stoeckl, D. Edgell, W. Seka, V. Yu. Glebov, A. K. Davis, J. L. Peebles, A. V. Maximov, R. Simpson, M. Gatu Johnson, W. Scullin, V. Gopalaswamy, D. Cao, V. N. Goncharov, P. B. Radha, S. P. Regan, and R. Epstein, “Direct Measurements of Hot-Electron Preheat in the Dense Fuel of Inertial Confinement Fusion Implosions” (invited).

T. J. B. Collins, C. Stoeckl, R. Epstein, S. Miller, J. A. Marozas, K. S. Anderson, D. Cao, O. M. Mannion, R. Betti, J. A. Delettrez, W. A. Bittle, C. J. Forrest, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, I. V. Igumenshchev, D. W. Jacobs-Perkins, R. T. Janezic, J. H. Kelly, T. Z. Kosc, C. Mileham, D. T. Michel, R. L. McCrory, P. W. McKenty, F. J. Marshall, S. F. B. Morse, P. B. Radha, S. P. Regan, B. Rice, T. C. Sangster, M. J. Shoup III, W. T. Shmayda, C. Sorce, W. Theobald, J. Ulreich, M. D. Wittman, J. A. Frenje, M. Gatu Johnson, and R. D. Petrasso, “Mixing at the Fuel–Ablator Interface in Backlit OMEGA Cryogenic Implosions.”

R. S. Craxton, A. Sharma, Y. Yang, R. F. Heeter, Y. P. Opachich, T. Cardenas, H. M. Johns, and T. S. Perry, “Simulations of Double Cone-in-Shell Implosions for an X-Ray Backlighting Source at the National Ignition Facility.”

J. R. Davies, D. H. Barnak, R. Betti, T. Cracium, and J. L. Peebles, “Current Transients in Laser-Driven Coils.”

D. H. Edgell, R. E. Bahr, J. Katz, and D. H. Froula, "Absorption and Scattered-Light Asymmetry in OMEGA Implosions."

R. Epstein, C. Stoeckl, P. B. Radha, T. J. B. Collins, D. Cao, R. C. Shah, D. Cliche, and R. C. Mancini, "Self-Radiography of Imploded Shells on OMEGA Based on Additive-Free Multi-Monochromatic Continuum Spectral Analysis."

R. K. Follett, J. G. Shaw, D. H. Edgell, D. H. Froula, C. Dorrer, J. Bromage, E. M. Hill, T. J. Kessler, A. V. Maximov, A. A. Solodov, E. M. Campbell, J. P. Palastro, J. F. Myatt, J. W. Bates, and J. L. Weaver, "Broadband Mitigation of Laser-Plasma Instabilities."

P. Franke, J. P. Palastro, D. Turnbull, and D. H. Froula, "Frequency Conversion of Laser Pulses Reflected from Ionization Waves of Arbitrary Velocity."

D. H. Froula, C. Dorrer, E. M. Hill, J. Bromage, T. J. Kessler, J. D. Zuegel, R. K. Follett, L. Nguyen, A. A. Solodov, J. P. Palastro, D. Turnbull, D. H. Edgell, J. G. Shaw, A. M. Hansen, A. L. Milder, J. Katz, R. Boni, V. N. Goncharov, M. Sherlock, H. Le, D. Strozzi, P. Michel, L. Divol, J. F. Myatt, W. Rozmus, J. W. Bates, A. Schmitt, J. Weaver, A. Colaïtis, L. Yin, and B. Albright, "Fourth-Generation Laser for Ultra-Broadband Experiments—Expanding the ICF Design Space Through Mitigation of Laser-Plasma Instabilities."

F. Garcia-Rubio, R. Betti, H. Aluie, and J. Sanz, "The Effect of Self-Generated Magnetic Fields on Ablative Rayleigh-Taylor Instability Dynamics."

V. Yu. Glebov, C. J. Forrest, J. P. Knauer, O. M. Mannion, S. P. Regan, M. H. Romanofsky, T. C. Sangster, and C. Stoeckl, "New Fast Neutron Time-of-Flight Detectors with Subnanosecond Instrument Response Function for DT Implosions on OMEGA."

V. N. Goncharov, S. C. Miller, and P. B. Radha, "A Survey of Different Perturbation Amplification Mechanisms in the Early Stages of Inertial Confinement Fusion Implosions."

V. Gopalaswamy, R. Betti, J. P. Knauer, A. Lees, D. Patel, A. R. Christopherson, K. M. Woo, O. M. Mannion, Z. L. Mohamed, F. J. Marshall, C. Stoeckl, V. Yu. Glebov, S. P. Regan, R. C. Shah, D. H. Edgell, D. Cao, V. N. Goncharov, I. V. Igumenshchev, P. B. Radha, T. J. B. Collins, T. C. Sangster, E. M. Campbell, M. Gatu Johnson, R. D. Petrasso, C. K. Li, and J. A. Frenje, "Improved Predictive Models and Further Progress in the Cryogenic Optimization Campaign on OMEGA."

D. Haberberger, A. Shvydky, V. N. Goncharov, D. Cao, J. Carroll-Nellenback, S. X. Hu, S. T. Ivancic, V. V. Karasiev, J. P. Knauer, A. V. Maximov, and D. H. Froula, "Density Measurements of the Inner Shell Release."

A. M. Hansen, D. Turnbull, R. K. Follett, J. Katz, A. L. Milder, J. P. Palastro, K. L. Nguyen, D. Mastrosimone, D. H. Froula, L. Yin, and B. Albright, "Cross-Beam Energy Transfer Experiments at High-Acoustic Wave Amplitudes."

E. C. Hansen, J. R. Davies, D. H. Barnak, R. Betti, E. M. Campbell, V. Yu. Glebov, J. P. Knauer, J. L. Peebles, A. B. Sefkow, and K. M. Woo, "Neutron Yield Enhancement and Suppression by Magnetization in Laser-Driven Cylindrical Implosions" (invited).

J. Hinz, V. V. Karasiev, S. X. Hu, M. Zaghoo, and D. Mejia-Rodriguez, "First Principles Investigation of the Insulator-Metal Transition in Liquid Hydrogen with a Recently Developed Deorbitalized meta-GGA Exchange-Correlation Functional."

S. X. Hu, R. C. Shah, J. Baltazar, D. Cao, S. P. Regan, V. N. Goncharov, P. B. Radha, J. L. Peebles, W. Theobald, R. Betti, E. M. Campbell, G. Duchateau, A. Casner, and V. T. Tikhonchuk, "Understanding Laser-Imprint Effects on Cryogenic DT Implosions on OMEGA."

I. V. Igumenshchev, R. Betti, E. M. Campbell, D. Cao, C. J. Forrest, V. N. Goncharov, V. Gopalaswamy, J. P. Knauer, O. M. Mannion, D. Patel, S. P. Regan, R. C. Shah, and A. Shvydky, "Three-Dimensional Hydrodynamic Modeling of OMEGA Direct-Drive Cryogenic Implosions with the Highest Fusion Yield."

S. T. Ivancic, F. J. Marshall, W. Theobald, C. Sorce, D. Cao, I. V. Igumenshchev, S. P. Regan, R. C. Shah, J. P. Knauer, V. N. Goncharov, R. Betti, and T. C. Sangster, "Three-Dimensional Gated Hot-Spot X-Ray Imaging on OMEGA."

V. V. Ivanov, A. L. Astanovitskiy, N. L. Wong, K. J. Swanson, I. A. Begishev, J. Bromage, J. R. Davies, A. V. Maximov, C. Mileham, and C. Stoeckl, "Study of Laser-Driven Magnetic Fields in the Coil Target."

V. V. Karasiev, S. X. Hu, and L. Calderin, "Systematic *Ab Initio* Calculations of Optical Properties of Silicon for Inertial Confinement Fusion Applications."

- A. Kish, A. B. Sefkow, J. Giuliani, A. Velikovich, S. Zalesak, and A. Schmitt, "Toward Advanced Modeling of Transport in Magnetized Inertial Confinement Fusion Targets."
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- L. S. Leal, A. V. Maximov, A. B. Sefkow, R. Betti, and V. V. Ivanov, "Three-Dimensional Modeling of Laser-Plasma Confinement in a Strong Magnetic Field."
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- O. M. Mannion, C. J. Forrest, D. Cao, V. Yu. Glebov, V. N. Goncharov, V. Gopalaswamy, J. P. Knauer, Z. L. Mohamed, S. P. Regan, T. C. Sangster, C. Stoeckl, A. J. Crilly, B. D. Appelbe, and J. P. Chittenden, "Experimental Analysis of nT Kinematic Edge Data on OMEGA."
- J. A. Marozas, P. W. McKenty, T. J. B. Collins, M. J. Rosenberg, P. B. Radha, S. P. Regan, S. Miller, E. M. Campbell, B. E. Blue, L. Divol, W. W. Hsing, G. E. Kemp, C. B. Yeamans, and H. D. Whitley, "NIF Polar-Drive High DT-Yield Exploder-Pusher Designs Modeled Using Pump-Depletion in *DRACO*."
- F. J. Marshall, S. T. Ivancic, C. Mileham, P. M. Nilson, J. J. Ruby, B. S. Schiener, M. J. Schmitt, and C. A. Wilde, "High-Resolution X-Ray Imaging with Fresnel Zone Plates on the University of Rochester's OMEGA and OMEGA EP Laser Systems."
- A. V. Maximov, D. Turnbull, J. G. Shaw, R. K. Follett, and J. P. Palastro, "Effect of Multibeam Two-Plasmon-Decay Instability on Cross-Beam Energy Transfer in Plasmas."
- P. W. McKenty, F. J. Marshall, D. R. Harding, R. S. Craxton, M. J. Rosenberg, J. A. Marozas, T. J. B. Collins, P. B. Radha, E. M. Campbell, B. E. Blue, C. B. Yeamans, W. W. Hsing, and M. Farrell, "Evaluation of Ablator-Shell Contouring to Enhance the Performance of NIF Polar-Drive High-Yield Source Experiments."
- A. L. Milder, J. Katz, R. Boni, D. Nelson, J. P. Palastro, K. Daub, R. K. Follett, and D. H. Froula, "Measurements of Arbitrary Electron Distribution Functions Using Angularly Resolved Thomson Scattering."
- S. C. Miller, P. B. Radha, V. N. Goncharov, T. J. B. Collins, J. A. Marozas, and A. Shvydky, "A Study of Internal Perturbation Evolution in Inertial Confinement Fusion Implosions."
- Z. L. Mohamed, C. J. Forrest, J. P. Knauer, R. Simpson, and M. Gatu Johnson, "Observed Variations in Areal Densities as Measured by Detectors Along Multiple Lines of Sight."
- K. L. Nguyen, L. Lin, B. J. Albright, A. M. Hansen, D. H. Froula, D. Turnbull, and J. P. Palastro, "Simulation Study of Nonlinear Saturation of Cross-Beam Energy Transfer in TOP9 Experiments at the Omega Laser Facility."
- P. M. Nilson, I. V. Igumenshchev, R. Betti, D. H. Froula, L. Gao, J. Matteucci, W. Fox, M. G. Haines, and D. D. Meyerhofer, "Magnetic Reconnection in the High-Energy-Density Regime" (invited).
- J. P. Palastro, J. L. Shaw, D. Ramsey, T. T. Simpson, P. Franke, S. T. Ivancic, K. Daub, and D. H. Froula, "Dephasingless Laser Wakefield Acceleration."
- D. Patel, R. Betti, K. M. Woo, V. Gopalaswamy, J. P. Knauer, R. C. Shah, and A. Bose, "Analysis and Reconstruction of Highest-Performing OMEGA DT Layered Implosion Shot 90288."
- R. Paul, S. X. Hu, V. V. Karasiev, and S. A. Bonev, "Temperature-Induced Changes in hP4-Sodium Electride: An *Ab Initio* Study."
- J. L. Peebles, S. X. Hu, W. Theobald, V. N. Goncharov, N. Whiting, E. M. Campbell, T. R. Boehly, S. P. Regan, P. M. Celliers, S. J. Ali, and G. Duchateau, "Measurements of Laser-Imprint-Induced Shock-Velocity Nonuniformities and Laser-Imprint Mitigation."
- D. N. Polsin, G. W. Collins, L. Crandall, X. Gong, R. Saha, M. Huff, G. Tabak, Z. K. Sprowal, T. R. Boehly, M. Zaghoo, J. R. Rygg, P. M. Celliers, D. E. Fratanduono, Y. Ping, J. H. Eggert, D. H. Munro, A. Lazicki, and D. G. Hicks, "X-Ray Diffraction of Double-Shocked Diamond."

P. B. Radha, M. J. Rosenberg, A. Shvydky, W. Theobald, D. Turnbull, F. J. Marshall, K. S. Anderson, R. Betti, E. M. Campbell, V. N. Goncharov, T. J. B. Collins, R. S. Craxton, J. A. Marozas, P. W. McKenty, S. P. Regan, T. C. Sangster, C. B. Yeaman, B. E. Blue, W. W. Hsing, and R. Scott, "Validating Direct-Drive Implosion Energetics Based on OMEGA and NIF Experiments."

D. W. Ramsey, D. H. Froula, and J. P. Palastro, "Vacuum Acceleration in a Flying Focus."

S. P. Regan, O. M. Mannion, C. J. Forrest, J. P. Knauer, R. Betti, E. M. Campbell, D. Cao, V. Yu. Glebov, V. N. Goncharov, S. T. Ivancic, F. J. Marshall, P. B. Radha, T. C. Sangster, R. C. Shah, C. Sorce, C. Stoeckl, and W. Theobald, "Hot-Spot Flow Velocity in Laser-Direct-Drive Inertial Confinement Fusion Implosions."

H. G. Rinderknecht, C. J. Forrest, J. P. Knauer, W. Theobald, S. P. Regan, R. Simpson, M. Gatu Johnson, and J. A. Frenje, "Hot Spot and Fuel Imaging Using Nuclear Diagnostics on Direct-Drive Cryogenic Implosions at OMEGA."

M. J. Rosenberg, A. A. Solodov, W. Seka, R. K. Follett, A. V. Maximov, C. Ren, S. Cao, S. P. Regan, P. B. Radha, T. J. B. Collins, D. H. Froula, J. P. Palastro, V. N. Goncharov, J. F. Myatt, P. A. Michel, M. Hohenberger, G. Swadling, J. S. Ross, R. Scott, and K. Glize, "Hot-Electron Generation Mechanisms in Ignition-Scale Direct-Drive Coronal Plasmas on the NIF."

J. J. Ruby, J. R. Rygg, D. A. Chin, C. J. Forrest, V. Yu. Glebov, C. Stoeckl, G. W. Collins, B. Bachmann, J. A. Gaffney, Y. Ping, N. V. Kabadi, and P. Adrian, "Analysis of Self-Emission from Spherical Shock Experiments."

A. B. Sefkow, J. G. Shaw, J. Carroll-Nellenback, S. Pai, E. G. Blackman, D. Cao, J. R. Davies, R. K. Follett, A. Frank, J. L. Giuliani, M. Haddad, E. C. Hansen, S. B. Hansen, S. X. Hu, A. Kish, M. Lavell, R. L. McCrory, P. W. McKenty, P. M. Nilson, A. Shvydky, R. B. Spielman, A. Tu, A. Velberg, and A. L. Velikovich, "Introduction to TriForce: A Multi-Physics Code for Hybrid Fluid-Kinetic Simulations."

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A. Shvydky, D. Haberberger, J. P. Knauer, S. X. Hu, S. T. Ivancic, J. Carroll-Nellenback, D. Cao, I. V. Igumenshchev, V. V. Karasiev, A. V. Maximov, S. P. Regan, P. B. Radha, T. C. Sangster, B. Boni, P. Nilson, V. N. Goncharov, D. H. Froula, and V. A. Smalyuk, "Analysis of Shock-Release OMEGA EP Experiments."

T. T. Simpson, D. H. Froula, and J. P. Palastro, "Nonlinear Self-Focusing of Flying Focus Pulses."

A. A. Solodov, M. J. Rosenberg, A. R. Christopherson, R. Betti, M. Stoeckl, W. Seka, R. Epstein, R. K. Follett, P. B. Radha, S. P. Regan, D. H. Froula, J. P. Palastro, V. N. Goncharov, J. F. Myatt, M. Hohenberger, B. Bachmann, and P. Michel, "Hot-Electron Preheat and Energy Deposition in Direct-Drive Implosion Experiments at the National Ignition Facility."

C. Stoeckl, T. J. B. Collins, R. Epstein, V. N. Goncharov, R. K. Jungquist, C. Mileham, P. B. Radha, S. P. Regan, T. C. Sangster, and W. Theobald, "Investigating Small-Scale Mix in Direct-Drive Cryogenic DT Implosions with Radiography on OMEGA."

W. Theobald, D. Cao, R. C. Shah, K. A. Bauer, R. Betti, M. J. Bonino, E. M. Campbell, A. R. Christopherson, T. J. B. Collins, R. S. Craxton, D. H. Edgell, R. Epstein, C. J. Forrest, R. K. Follett, D. H. Froula, V. Yu. Glebov, V. N. Goncharov, V. Gopalaswamy, D. R. Harding, S. X. Hu, I. V. Igumenshchev, S. T. Ivancic, D. W. Jacobs-Perkins, R. T. Janezic, J. H. Kelly, T. J. Kessler, J. P. Knauer, T. Z. Kosc, O. M. Mannion, J. A. Marozas, F. J. Marshall, P. W. McKenty, Z. L. Mohamed, S. F. B. Morse, P. M. Nilson, J. P. Palastro, D. Patel, J. L. Peebles, P. B. Radha, H. G. Rinderknecht, M. J. Rosenberg, S. Sampat, T. C. Sangster, W. Seka, M. J. Shoup III, W. T. Shmayda, A. Shvydky, C. Sorce, C. Stoeckl, C. Thomas, J. Ulreich, M. D. Wittman, S. P. Regan, B. Rice, M. Gatu Johnson, J. A. Frenje, and R. D. Petrasso, "Enhanced Laser Energy Coupling with Small-Spot Distributed Phase Plates (SG5-650) in OMEGA Cryogenic Implosions."

C. A. Thomas, K. L. Baker, D. T. Casey, M. Hohenberger, A. L. Kritcher, B. K. Spears, S. Khan, R. Nora, T. Woods,

J. L. Milovich, R. L. Berger, D. Strozzi, D. D. Ho, D. Clark, B. Bachmann, R. Benedetti, R. Bionta, P. M. Celliers, D. Fittinghoff, G. Grim, R. Hatarik, N. Izumi, G. Kyrala, T. Ma, M. Millot, S. R. Nagel, P. K. Patel, C. B. Yeamans, M. Tabak, M. Gatu Johnson, P. L. Volegov, and E. M. Campbell, “Review of BigFoot Implosion Data at NIF.”

D. Turnbull, D. Cao, D. H. Edgell, R. K. Follett, D. H. Froula, V. N. Goncharov, A. V. Maximov, J. P. Palastro, W. Seka, C. Stoeckl, and H. Wen, “Anomalous Absorption by the Two-Plasmon–Decay Instability in Directly Driven Inertial Confinement Fusion Experiments.”

D. Turnbull, C. Dorrer, D. H. Edgell, R. K. Follett, D. H. Froula, A. M. Hansen, J. Katz, B. E. Kruschwitz, A. L. Milder, J. P. Palastro, A. Colaitis, T. Chapman, L. Divol, C. S. Goyon, P. Michel, J. D. Moody, B. B. Pollock, J. S. Ross, and D. J. Strozzi, “Impact of Non-Maxwellian Electron Distribution Functions on Crossed-Beam Energy Transfer” (invited).

H. Wen, B. J. Winjum, F. S. Tsung, and W. B. Mori, “Mitigation of Stimulated Raman Scattering with Laser Bandwidth and an External Magnetic Field.”

J. Wilson, V. N. Goncharov, T. Simpson, D. Ramsey, C. Dorrer, A. Shvydky, D. H. Froula, and J. P. Palastro, “Broadband Smoothing of Laser Pulses for Imprint Reduction in Direct-Drive Inertial Confinement Fusion.”

K. M. Woo, R. Betti, O. M. Mannion, D. Patel, C. J. Forrest, J. P. Knauer, V. N. Goncharov, P. B. Radha, K. S. Anderson, R. Epstein, J. A. Delettrez, M. Charissis, A. Shvydky, I. V. Igumenshchev, V. Gopalaswamy, A. R. Christopherson, Z. L. Mohamed, D. Cao, H. Aluie, E. M. Campbell, R. Yan, P.-Y. Chang, A. Bose, D. Shvarts, and J. Sanz, “Inferring the Thermal Ion Temperature and Residual Kinetic Energy from Nuclear Measurements in Inertial Confinement Fusion” (invited).

S. Zhang, H. Whitley, L. Benedict, L. Yang, K. Caspersen, J. Gaffney, M. Däne, J. Pask, P. Sterne, T. Ogitsu, A. Lazicki, M. Marshall, D. Swift, M. Martin, R. London, A. Kritcher, J. Nilsen, N. Kostinski, B. Maddox, B. Militzer, K. Driver, F. Soubiran, A. Sharma, P. Suryanarayana, D. D. Johnson, A. V. Smirnov, S. X. Hu, and W. Johnson, “Wide-Range EOS of Carbon and Boron Materials from First Principles.”

M. S. Wei, “Status FY19 OLUG Findings and Recommendations,” presented at the APS DPP OLUG Update, Fort Lauderdale, FL, 22 October 2019.

S. G. Demos, “Optical Materials Research at LLE,” presented at the CEA Seminar, Bordeaux, France, 23 October 2019.

S. G. Demos, “Relocation of the SPIE Laser Damage Conference to Rochester and Opportunities for Industrial Partners,” presented at the Institute of Optics 2019 Fall Industrial Associates Symposium, Rochester, NY, 1 November 2019.

The following presentations were made at the 2nd American Physical Society Division of Plasma Physics Community Planning Process Workshop for High Energy Density Physics (HEDP), Palo Alto, CA, 11–14 November 2019:

J. P. Palastro, D. H. Froula, J. L. Shaw, T. M. Antonsen, J. Vieira, N. Vafaei-Najafabadi, W. Mori, P. Franke, D. Ramsey, T. T. Simpson, K. Daub, M. S. Wei, J. D. Zuegel, and E. M. Campbell, “Spatiotemporally Structured Light for Advanced Accelerators and Radiation Sources.”

J. D. Zuegel, J. Bromage, D. H. Froula, M. S. Wei, H. G. Rinderknecht, P. M. Nilson, S. X. Hu, F. Albert, B. M. Hegelich, M. Roth, and E. M. Campbell, “Frontiers in High-Energy-Density and Relativistic Plasma Physics Enabled by EP OPAL: A Multibeam Ultrahigh-Intensity Laser User Facility.”

K. L. Marshall, T. Z. Kosc, B. N. Hoffman, S. Papernov, A. A. Kozlov, S. G. Demos, J. Shojaie, C. Dorrer, D. Batesky, J. Wallace, S. Jacobs, A. Schmid, K. Richardson, J. Starowitz, S. H. Chen, T. Brown, and N. Tabiryan, “Liquid Crystal Research at LLE: A 35-Year Journey from Information Displays to Laser Fusion and Beyond,” presented at the Rochester OSA/SPIE Student Chapter Lecture Series, Rochester, NY, 12 November 2019.

M. S. Wei, “Overview of Fundamental Science Programs at the Omega Laser Facility,” presented at the SUNY Geneseo Colloquium, Geneseo, NY, 21 November 2019.

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The following presentations were made at the Materials Research Society Fall Meeting, Boston, MA, 1–6 December 2019:

J. M. Garcia Figueroa and D. R. Harding, “The Relationship Between the Processing Conditions for an Electron Cyclotron Resonance-(ECR) Microwave-(MW) CVD System and the Properties of Vapor Deposited Hydrocarbon Films.”

M. Wang and D. R. Harding, “Mechanical Properties of Micrometer-Size Cellular Foam-Like Auxetic Structures.”

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The following presentations were made at the Conference on High Intensity Laser and Attosecond Science in Israel, Tel Aviv, Israel, 9–11 December 2019:

R. Betti, V. Gopaldaswamy, J. P. Knauer, A. R. Christopherson, D. Patel, K. M. Woo, A. Bose, K. S. Anderson, T. J. B. Collins,

S. X. Hu, D. T. Michel, C. J. Forrest, R. C. Shah, P. B. Radha, V. N. Goncharov, V. Yu. Glebov, A. V. Maximov, C. Stoeckl, F. J. Marshall, M. J. Bonino, D. R. Harding, R. T. Janezic, J. H. Kelly, S. Sampat, T. C. Sangster, S. P. Regan, E. M. Campbell, M. Gatu Johnson, J. A. Frenje, C. K. Li, and R. D. Petrasso, “Overview of the Cryogenic Implosion Campaign on the OMEGA Laser.”

S. P. Regan, V. N. Goncharov, T. C. Sangster, R. Betti, E. M. Campbell, K. A. Bauer, M. J. Bonino, D. Cao, G. W. Collins, T. J. B. Collins, R. S. Craxton, D. H. Edgell, R. Epstein, C. J. Forrest, J. A. Frenje, D. H. Froula, M. Gatu Johnson, V. Yu. Glebov, V. Gopaldaswamy, D. R. Harding, S. X. Hu, I. V. Igumenshchev, S. T. Ivancic, D. W. Jacobs-Perkins, R. T. Janezic, T. J. Kessler, J. P. Knauer, T. Z. Kosc, J. Kwiatkowski, O. M. Mannion, J. A. Marozas, F. J. Marshall, P. W. McKenty, Z. L. Mohamed, S. F. B. Morse, P. M. Nilson, J. P. Palastro, D. Patel, J. L. Peebles, R. D. Petrasso, P. B. Radha, H. G. Rinderknecht, M. J. Rosenberg, S. Sampat, W. Seka, R. C. Shah, J. R. Rygg, W. T. Shmayda, M. J. Shoup III, A. Shvydky, A. A. Solodov, C. Sorce, C. Stoeckl, W. Theobald, D. Turnbull, J. Ulreich, M. D. Wittman, and K. M. Woo, “Three-Dimensional Diagnostics for Inertial Confinement Fusion Research on OMEGA” (invited).