Publications and Conference Presentations

Publications

R. Florido, R. C. Mancini, T. Nagayama, R. Tommasini, J. A. Delettrez and S. P. Regan, "Time-Resolved Characterization and Energy Balance Analysis of Implosion Core in Shock-Ignition Experiments at OMEGA," Phys. Plasmas **21**, 102709 (2014).

H. M. Johns, R. C. Mancini, P. Hakel, T. Nagayama, V. A. Smalyuk, S. P. Regan and J. Delettrez, "Compressed Shell Conditions Extracted from Spectroscopic Analysis of Ti K-Shell Absorption Spectra with Evaluation of Line Self-Emission," Phys. Plasmas **21**, 082711 (2014).

K. L. Marshall, O. Didovets, and D. Saulnier, "Contact-Angle Measurements as a Means of Probing the Surface Alignment Characteristics of Liquid Crystal Materials on Photoalignment Layers," in *Liquid Crystals XVIII*, edited by I. C. Khoo (SPIE, Bellingham, WA, 2014), Vol. 9182, Paper 91820J.

D. T. Michel, R. S. Craxton, A. K. Davis, R. Epstein, V. Yu. Glebov, V. N. Goncharov, S. X. Hu, I. V. Igumenshchev, D. D. Meyerhofer, P. B. Radha, T. C. Sangster, W. Seka, C. Stoeckl, and D. H. Froula, "Implosion Dynamics in Direct-Drive Experiments," Plasma Phys. Control. Fusion **57**, 014023 (2015).

T. Nagayama, R. C. Mancini, R. Florido, D. Mayes, R. Tommasini, J. A. Koch, J. A. Delettrez, S. P. Regan and V. A. Smalyuk, "Direct Asymmetry Measurement of Temperature and Density Spatial Distributions in Inertial Confinement Fusion Plasmas from Pinhole Space-Resolved Spectra," Phys. Plasmas **21**, 050702 (2014).

J. M. Ngoko Djiokap, N. L. Manakov, A. V. Meremianin, S. X. Hu, L. B. Madsen, and A. F. Starace, "Nonlinear Dichroism in Back-to-Back Double Ionization of He by an Intense Elliptically Polarized Few-Cycle Extreme Ultraviolet Pulse," Phys. Rev. Lett. **113**, 223002 (2014).

S. Papernov, "Defect-Induced Damage," in *Laser-Induced Damage in Optical Materials*, edited by D. Ristau (CRC Press, Boca Raton, FL, 2014), Chap. 3, pp. 25–74.

S. Papernov, A. A. Kozlov, and J. B. Oliver, "Interface Absorption Versus Film Absorption in HfO_2/SiO_2 Thin-Film Pairs in the Near-Ultraviolet and the Relation to Pulsed-Laser Damage," in *Laser-Induced Damage in Optical Materials: 2014*, edited by G. J. Exarhos, V. E. Gruzdev, J. A. Menapace, D. Ristau, and M. J. Soileau (SPIE, Bellingham, WA, 2014), Vol. 9237, Paper 92370Q.

M. J. Rosenberg, A. B. Zylstra, F. H. Séguin, H. G. Rinderknecht, J. A. Frenje, M. Gatu Johnson, H. Sio, C. J. Waugh, N. Sinenian, C. K. Li, R. D. Petrasso, P. W. McKenty, M. Hohenberger, P. B. Radha, J. A. Delettrez, V. Yu. Glebov, R. Betti, V. N. Goncharov, J. P. Knauer, T. C. Sangster, S. LePape, A. J. Mackinnon, J. Pino, J. M. McNaney, J. R. Rygg, P. A. Amendt, C. Bellei, L. R. Benedetti, L. Berzak Hopkins, R. M. Bionta, D. T. Casey, L. Divol, M. J. Edwards, S. Glenn, S. H. Glenzer, D. G. Hicks, J. R. Kimbrough, O. L. Landen, J. D. Lindl, T. Ma, A. MacPhee, N. B. Meezan, J. D. Moody, M. J. Moran, H.-S. Park, B. A. Remington, H. Robey, M. D. Rosen, S. C. Wilks, R. A. Zacharias, H. W. Herrmann, N. M. Hoffman, G. A. Kyrala, R. J. Leeper, R. E. Olson, J. D. Kilkenny and A. Nikroo, "Investigation of Ion Kinetic Effects in Direct-Drive Exploding-Pusher Implosions at the NIF," Phys. Plasmas **21**, 122712 (2014).

W. Theobald, A. A. Solodov, C. Stoeckl, K. S. Anderson, F. N. Beg, R. Epstein, G. Fiksel, E. M. Giraldez, V. Yu. Glebov, H. Habara, S. Ivancic, L. C. Jarrott, F. J. Marshall, G. McKiernan, H. S. McLean, C. Mileham, P. M. Nilson, P. K. Patel, F. Pérez, T. C. Sangster, J. J. Santos, H. Sawada, A. Shvydky, R. B. Stephens, and M. S. Wei, "Time-Resolved Compression of a Capsule with a Cone to High Density for Fast-Ignition Laser Fusion," Nat. Commun. **5**, 5785 (2014).

Forthcoming Publications

R. Arpaia, M. Ejrnaes, L. Parlato, F. Tafuri, R. Cristiano, D. Golubev, R. Sobolewski, T. Bauch, F. Lombardi, and G. P. Pepe, "High-Temperature Superconducting Nanowires for Photon Detection," to be published in Physica C.

R. Epstein, V. N. Goncharov, F. J. Marshall, R. Betti, R. Nora, A. R. Christopherson, I. E. Golovkin, and J. J. MacFarlane, "X-Ray Continuum as a Measure of Pressure and Fuel–Shell Mix in Compressed Isobaric Hydrogen Implosion Cores," to be published in Physics of Plasmas.

R. Epstein, S. P. Regan, B. A. Hammel, L. J. Suter, H. A. Scott, M. A. Barrios, D. K. Bradley, D. A. Callahan, C. Cerjan, G. W. Collins, S. N. Dixit, T. Doppner, M. J. Edwards, D. R. Farley, K. B. Fournier, S. Glenn, S. H. Glenzer, I. E. Golovkin, A. Hamza, D. G. Hicks, N. Izumi, O. S. Jones, M. H. Key, J. D. Kilkenny, J. L. Kline, G. A. Kyrala, O. L. Landen, T. Ma, J. J. MacFarlane, A. J. Mackinnon, R. C. Mancini, R. L. McCrory, D. D. Meyerhofer, N. B. Meezan, A. Nikroo, H.-S. Park, P. K. Patel, J. E. Ralph, B. A. Remington, T. C. Sangster, V. A. Smalyuk, P. T. Springer, R. P. J. Town, and J. L. Tucker, "Applications and Results of X-Ray Spectroscopy in Implosion Experiments on the National Ignition Facility," to be published in the Proceedings of Atomic Processes in Plasmas (invited).

G. Fiksel, A. Agliata, D. H. Barnak, G. Brent, P.-Y. Chang, L. Folnsbee, G. Gates, D. Hasset, D. Lonobile, J. Magoon, D. Mastrosimone, M. J. Shoup III, and R. Betti, "Note: Experimental Platform for Magnetized High-Energy-Density-Plasma Studies at the Omega Laser Facility," to be published in Review of Scientific Instruments.

M. Hohenberger, P. B. Radha, J. F. Myatt, S. LePape, J. A. Marozas, F. J. Marshall, D. T. Michel, S. P. Regan, W. Seka, A. Shvydky, T. C. Sangster, J. W. Bates, R. Betti, T. R. Boehly, M. J. Bonino, D. T. Casey, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, D. H. Edgell, R. Epstein, G. Fiksel, P. Fitzsimmons, J. A. Frenje, D. H. Froula, V. N. Goncharov, D. R. Harding, D. H. Kalantar, M. Karasik, T. J. Kessler, J. D. Kilkenny, J. P. Knauer, C. Kurz, M. Lafon, K. N. LaFortune, B. J. MacGowan, A. J. Mackinnon, A. G. MacPhee, R. L. McCrory, P. W. McKenty, J. F. Meeker, D. D. Meyerhofer, S. R. Nagel, A. Nikroo, S. Obenschain, R. D. Petrasso, J. E. Ralph, H. G. Rinderknecht, M. J. Rosenberg, A. J. Schmitt, R. J. Wallace, J. Weaver, C. Widmayer, S. Skupsky, A. A. Solodov, C. Stoeckl, B. Yaakobi, and J. D. Zuegel, "Polar-Direct-Drive Experiments on the National Ignition Facility," to be published in Physics of Plasmas (invited).

C. M. Huntington, F. Fiuza, J. S. Ross, A. B. Zylstra, R. P. Drake, D. H. Froula, G. Gregori, N. L. Kugland, C. C. Kuranz, M. C. Levy, C. K. Li, J. Meinecke, T. Morita, R. Petrasso, C. Plechaty, B. A. Remington, D. D. Ryutov, Y. Sakawa, A. Spitkovsky, H. Takabe, H.-S. Park, "Observation of Magnetic Field Generation via the Weibel Instability in Interpenetrating Plasma Flows," to be published in Nature Physics.

S. X. Hu, V. N. Goncharov, T. R. Boehly, R. L. McCrory, S. Skupsky, L. A. Collins, J. D. Kress, and B. Militzer, "Impact of First-Principles Properties of Deuterium–Tritium on Inertial Confinement-Fusion Target Designs," to be published in Physics of Plasmas (invited).

P. M. Nilson, L. Gao, I. V. Igumenschev, G. Fiksel, R. Yan, J. R. Davies, D. Martinez, V. A. Smalyuk, M. G. Haines, E. G. Blackman, D. H. Froula, R. Betti, and D. D. Meyerhofer, "Magnetic-Field Generation by the Ablative Nonlinear Rayleigh–Taylor Instability," to be published in the Journal of Plasma Physics.

R. Nora, W. Theobald, F. J. Marshall, D. T. Michel, W. Seka, B. Yaakobi, M. Lafon, C. Stoeckl, J. A. Delettrez, A. A. Solodov, A. Casner, C. Reverdin, X. Ribeyre, A. Vallet, J. Peebles, F. N. Beg, M. S. Wei, and R. Betti, "Gigabar Spherical Shock Generation on the OMEGA Laser," to be published in Physical Review Letters.

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F. Weilacher, P. B. Radha, T. J. B. Collins, and J. A. Marozas, "The Effect of Laser Spot Shapes on Polar-Direct-Drive Implosions on the National Ignition Facility," to be published in Physics of Plasmas.

Conference Presentations

D. D. Meyerhofer, S.-W. Bahk, J. Bromage, D. H. Froula, L. Gao, M. J. Guardalben, D. Haberberger, S. X. Hu, B. E. Kruschwitz, J. F. Myatt, P. M. Nilson, J. B. Oliver, C. Robillard, M. J. Shoup III, C. Stoeckl, W. Theobald, L. J. Waxer, B. Yaakobi, and J. D. Zuegel, "High-Energy-Density Physics with High-Energy and High-Intensity Lasers," Second High-Power Laser Workshop, Palo Alto, CA, 7–8 October 2014.

D. H. Froula, "An Overview of the Direct-Drive Program at the Laboratory for Laser Energetics," NRL Colloquium, Washington, DC, 8 October 2014.

The following presentations were made at ICUIL 2014, Goa, India, 12–17 October 2014:

J. Bromage, R. G. Roides, S.-W. Bahk, C. Mileham, J. B. Oliver, C. Dorrer, and J. D. Zuegel, "Technology Development for Ultra-Intense OPCPA."

C. Dorrer, R. G. Roides, J. Bromage, and J. D. Zuegel, "Self-Phase Modulation Compensation in a Regenerative Amplifier Using Cascaded Second-Order Nonlinearities."

D. Haberberger, J. Bromage, J. D. Zuegel, D. H. Froula, A. Cairns, R. Trines, R. Bingham, and P. A. Norreys, "Tunable Plasma-Wave Laser Amplifier."

B. W. Plansinis, "Spectral Changes Induced by a Phase Modulator Acting as a Time Lens," Frontiers in Optics, Tucson, AZ, 19–23 October 2014.

J. H. Kelly, "Laser-Driven Fusion at the University of Rochester and Parallels Between Laser/Optical and Radio-Frequency/Microwave Techniques," Microwave Update 2014, Rochester, NY, 24–25 October 2014.

The following presentations were made at the 56th Annual Meeting of the APS Division of Plasma Physics, New Orleans, LA, 27–31 October 2014:

K. S. Anderson, P. W. McKenty, T. J. B. Collins, J. A. Marozas, M. Lafon, and R. Betti, "An Implosion-Velocity Survey for Shock Ignition at the National Ignition Facility."

D. H. Barnak, G. Fiksel, H. Chen, P.-Y. Chang, D. D. Meyerhofer, G. J. Williams, S. Kerr, and J. Park, "Collimation of a Positron Beam Using an Externally Applied Axially Symmetric Magnetic Field."

R. Betti, A. R. Christopherson, J. Howard, A. Bose, and R. Nora, "Measurements of Alpha Heating in Inertial Confinement Fusion."

T. R. Boehly, G. Fiksel, S. X. Hu, V. N. Goncharov, T. C. Sangster, and P. M. Celliers, "Measurements of Laser Imprinting Using 2-D Velocity Interferometry."

A. Bose, R. Betti, K. Woo, R. Nora, R. Epstein, J. A. Delettrez, K. S. Anderson, and A. Shvydky, "Hydrodynamic Scaling of the Deceleration-Phase Rayleigh–Taylor Instability."

D. Cao, G. Moses, J. A. Delettrez, T. J. B. Collins, "Design Process for Applying the Nonlocal Thermal Transport iSNB Model to a Polar-Drive ICF Simulation."

P.-Y. Chang, J. R. Davies, D. H. Barnak, G. Fiksel, R. Betti, A. Harvey-Thompson, and D. Sinars, "Design of Scaled-Down Magnetized Liner Inertial Fusion on OMEGA."

A. R. Christopherson, R. Epstein, F. J. Marshall, R. Nora, C. Stoeckl, C. J. Forrest, J. A. Delettrez, P. B. Radha, and J. Howard, "Comprehensive Analysis of a High-Adiabat Cryogenic Implosion on OMEGA."

T. J. B. Collins, J. A. Marozas, J. A. Delettrez, P. W. McKenty, S. Skupsky, D. Cao, J. Chenhall, and G. Moses, "A Polar-Drive, Alpha-Heating Platform for the National Ignition Facility."

A. Davies, L. Ceurvorst, P. A. Norreys, D. Haberberger, D. H. Froula, R. Yan, and C. Ren, "Self-Generated Magnetic Fields in New Laser-Produced Plasma with High-Intensity Beams."

J. R. Davies, D. H. Barnak, R. Betti, A. Carreon, P.-Y. Chang, G. Fiksel, E. L. Campbell, and D. B. Sinars, "Instability Driven by a Self-Generated Magnetic Field: Relevance to Helical Structures in MagLIF Experiments."

A. K. Davis, D. T. Michel, I. V. Igumenshchev, R. S. Craxton, R. Epstein, V. N. Goncharov, S. X. Hu, M. Lafon, P. B. Radha, T. C. Sangster, and D. H. Froula, "Measurement of the Si Mass Ablation Rate in Direct-Drive Implosions on the OMEGA Laser System."

J. A. Delettrez, T. J. B. Collins, and C. Ye, "Limits on the Level of Fast-Electron Preheat in Direct-Drive–Igni tion Designs."

T. Eckert, L. Vincett, M. Yuly, S. Padalino, M. Russ, M. Bienstock, A. Simone, D. Ellison, H. Desmitt, T. C. Sangster, and S. P. Regan, "Coincidence Efficiency of Sodium Iodide Detectors for Positron Annihilation."

D. H. Edgell, I. V. Igumenshchev, D. T. Michel, J. F. Myatt, D. H. Froula, R. J. Henchen, and V. N. Goncharov, "Empirical Scaling of Hot Electrons with the Two-Plasmon–Decay Common-Wave Gain."

R. Epstein, F. J. Marshall, V. N. Goncharov, R. Betti, R. Nora, and A. R. Christopherson, "Fuel–Shell Mix Measurements Based on X-Ray Continuum Emission from Isobaric Implosion Cores on OMEGA."

G. Fiksel, D. H. Barnak, P.-Y. Chang, D. Haberberger, S. X. Hu, S. Ivancic, P. M. Nilson, W. Fox, A. Bhattacharjee, and K. Germaschewski, "Strongly Driven Magnetic Reconnection in a Magnetized High-Energy-Density Plasma."

T. M. Filkins, J. Steidle, D. M. Ellison, J. Steidle, C. G. Freeman, S. J. Padalino, G. Fiksel, S. P. Regan, and T. C. Sangster, "Measurements of Proton Energy Spectra Using a Radiochromic Film Stack."

R. K. Follett, D. H. Edgell, R. J. Henchen, S. X. Hu, J. Katz, D. T. Michel, J. F. Myatt, J. Shaw, and D. H. Froula, "Observation of Two-Plasmon–Decay Common Plasma Waves Using UV Thomson Scattering."

C. J. Forrest, C. Stoeckl, V. Yu. Glebov, T. C. Sangster, P. B. Radha, V. N. Goncharov, J. A. Frenje, and M. Gatu Johnson, "Measurements of Areal-Density Anisotropies Using Elastic Scattering in Cryogenic Direct-Drive Implosions."

W. Fox, G. Fiksel, D. Barnak, P. Nilson, S. X. Hu, A. Bhattacharjee, W. Deng, "Astrophysical Weibel Instability in Counter-Streaming Laser-Driven Plasmas" (invited).

J. Frenje, C. K. Li, F. Séguin, A. Zylstra, R. Petrasso, P. Grabowski, R. Mancini, S. Regan, J. Delettrez, V. Glebov, and T. Sangster, "Measurements of Charged-Particle Stopping Around the Bragg Peak in OMEGA ICF Plasmas."

D. H. Froula, G. Fiksel, V. N. Goncharov, S. X. Hu, H. Huang, I. V. Igumenshchev, T. J. Kessler, D. D. Meyerhofer, D. T. Michel, T. C. Sangster, A. Shvydky, and J. D. Zuegel, "A Pathway to Ignition-Hydrodynamic-Equivalent Implosions in OMEGA Direct Drive Through the Reduction of Cross-Beam Energy Transfer."

L. Gao, "Observation of Self-Similarity in the Magnetic Fields Generated by the Ablative Nonlinear Rayleigh–Taylor Instability."

M. Gatu Johnson, J. A. Frenje, A. Zylstra, R. D. Petrasso, C. Forrest, V. Yu. Glebov, J. P. Knauer, F. J. Marshall, D. T. Michel, T. C. Sangster, W. Seka, C. Stoeckl, D. Sayre, J. A. Caggiano, D. T. Casey, R. Hatarik, D. P. McNabb, J. E. Pino, A. Bacher, H. Herrmann, Y. Kim, J-. L. Bourgade, and O. Landoas, "Observation of Variations in the T + T Neutron Spectrum with Varying Center-of-Mass Energy."

V. Yu. Glebov, C. Stoeckl, T. C. Sangster, and C. Forrest, "Correlations of Multiple Ion-Temperature Measurements with Shot Parameters in DT Cryogenic Implosions on OMEGA."

V. N. Goncharov, T. C. Sangster, R. Epstein, S. X. Hu, I. V. Igumenshchev, C. J. Forrest, D. H. Froula, F. J. Marshall, D. T. Michel, P. B. Radha, W. Seka, C. Stoeckl, J. A. Frenje, and M. Gatu Johnson, "Understanding the Performance of Low-Adiabat Cryogenic Implosions on OMEGA."

M. C. Gregor, T. R. Boehly, C. A. McCoy, D. N. Polsin, D. D. Meyerhofer, D. E. Fratanduono, P. M. Celliers, and G. W. Collins, "The Release Behavior of Diamond Shocked to 15 Mbar."

D. Haberberger, P. M. Nilson, M. C. Gregor, T. R. Boehly, and D. H. Froula, "Studying the Equation of State of Isochorically Heated Al Using Streaked Optical Pyrometry."

R. J. Henchen, V. N. Goncharov, S. X. Hu, R. K. Follett, J. Katz, D. H. Froula, and W. Rozmus, "Heat Flux Measurements from Thomson-Scattered Electron Plasma Waves."

M. Hohenberger, P. B. Radha, J. W. Bates, R. Betti, T. R. Boehly, M. J. Bonino, D. T. Casey, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, D. H. Edgell, R. Epstein, G. Fiksel, P. Fitzsimmons, J. A. Frenje, D. H. Froula, V. N. Goncharov, D. R. Harding, D. H. Kalantar, M. Karasik, T. J. Kessler, J. D. Kilkenny, J. P. Knauer, C. Kurz, M. Lafon, K. N. LaFortune, S. LePape, B. MacGowan, A. J. Mackinnon, A. MacPhee, J. A. Marozas, F. J. Marshall, R. L. McCrory, P. W. McKenty, J. Meeker, D. D. Meyerhofer, D. T. Michel, J. F. Myatt, S. R. Nagel, A. Nikroo, S. P. Obenschain, R. D. Petrasso, S. P. Regan, H. G. Rinderknecht, M. Rosenberg, T. C. Sangster, A. J. Schmitt, W. Seka, A. Shvydky, S. Skupsky, A. A. Solodov, C. Stoeckl, R. J. Wallace, J. Weaver, C. Widmeyer, B. Yaakobi, and J. D. Zuegel, "Polar-Direct-Drive Experiments on the National Ignition Facility" (invited).

S. X. Hu, V. N. Goncharov, T. R. Boehly, R. L. McCrory, S. Skupsky, L. A. Collins, J. D. Kress, and B. Militzer, "Impact of First-Principles Properties of Deuterium–Tritium on Inertial Confinement Fusion Target Designs" (invited).

I. V. Igumenshchev, "Effects of Self-Generated Magnetic Fields in Rayleigh–Taylor Unstable Laser-Irradiated Plastic Foils."

S. Ivancic, D. Haberberger, C. Stoeckl, K. S. Anderson, C. Ren, W. Theobald, D. H. Froula, D. D. Meyerhofer, T. Iwawaki, H. Habara, and K. Tanaka, "Optical Probing of Laser-Channeling Experiments on the OMEGA EP Laser System."

V. V. Ivanov, A. V. Maximov, A. A. Anderson, B. S. Bauer, and K. Yates, "Study of Strong Magnetic Fields Using Parametric Instability in a Magnetized Plasma."

J. P. Knauer, "Ion-Temperature Measurements for Cryogenic, High-Foot, Inertial Confinement Fusion Implosions at the National Ignition Facility."

M. Lafon, R. Betti, K. S. Anderson, T. J. B. Collins, P. W. McKenty, A. Shvydky, and S. Skupsky, "Benefits of Moderate-*Z* Ablators for Direct-Drive Inertial Confinement Fusion."

J. A. Marozas, T. J. B. Collins, J. D. Zuegel, P. B. Radha, F. J. Marshall, P. W. McKenty, W. Seka, D. T. Michel, and M. Hohenberger, "Cross-Beam Energy Transfer Mitigation Strategy for Polar Drive at the National Ignition Facility."

F. J. Marshall, J. A. Delettrez, R. Epstein, V. N. Goncharov, D. T. Michel, T. C. Sangster, and C. Stoeckl, "Time-Resolved Imaging of Cryogenic Target X-Ray Emission at Peak Compression on OMEGA."

A. V. Maximov, J. F. Myatt, R. W. Short, I. V. Igumenshchev, and W. Seka, "Cross-Beam Energy Transfer Driven by Incoherent Laser Beams with Colors."

C. A. McCoy, M. C. Gregor, D. N. Polsin, T. R. Boehly, D. D. Meyerhofer, D. E. Fratanduono, P. M. Celliers, and G. W. Collins, "Measurements of the Sound Speed and Grüneisen Parameter with a Nonsteady Wave Correction."

P. W. McKenty, J. A. Marozas, F. J. Marshall, J. Weaver, S. Obenschain, and A. Schmitt, "Evaluation of Wavelength Detuning to Mitigate Cross-Beam Energy Transfer Using the Nike Laser."

D. D. Meyerhofer, S.-W. Bahk, J. Bromage, D. H. Froula, M. J. Guardalben, D. Haberberger, S. X. Hu, B. E. Kruschwitz, J. F. Myatt, P. M. Nilson, J. B. Oliver, C. Robillard, M. J. Shoup III, C. Stoeckl, W. Theobald, L. J. Waxer, B. Yaakobi, and J. D. Zuegel, "OMEGA EP OPAL: A Path to a 75-PW Laser System."

D. T. Michel, T. C. Sangster, V. N. Goncharov, A. K. Davis, V. Yu. Glebov, R. Epstein, S. X. Hu, I. V. Igumenshchev, D. D. Meyerhofer, W. Seka, A. Shvydky, C. Stoeckl, and D. H. Froula, "Constraining the Hydrodynamic Efficiency in Hydrodynamic Simulations of Direct-Drive Cryogenic Implosions."

J. F. Myatt, J. Shaw, J. Zhang, A. V. Maximov, R. W. Short, W. Seka, D. H. Edgell, D. H. Froula, D. F. DuBois, D. A. Russell, and H. X. Vu, "An Investigation of Two-Plasmon–Decay Localization in Spherical Implosion Experiments on OMEGA."

P. M. Nilson, M. Lafon, C. R. Stillman, C. Mileham, R. Boni, T. R. Boehly, D. H. Froula, and D. D. Meyerhofer, "Direct Shock-Timing Measurements in CH Using Streaked X-Ray Radiography."

R. Nora, W. Theobald, F. J. Marshall, D. T. Michel, W. Seka, B. Yaakobi, M. Lafon, C. Stoeckl, J. A. Delettrez, A. A. Solodov, R. Betti, A. Casner, C. Reverdin, X. Ribeyre, A. Vallet, J. Peebles, F. N. Beg, and M. S. Wei, "Gigabar Spherical Shock Experiments on OMEGA."

S. Padalino, A. Simone, E. Turner, M. K. Ginnane, N. Dubois, T. C. Sangster, and S. P. Regan, "Time-Resolved Tandem Faraday Cup for High Energy TNSA Particles."

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J. P. Knauer, "OMEGA MIFEDS Magnetic-Field Generator," JOWOG-37, Los Alamos, NM, 3–7 November 2014.

W. R. Donaldson, B. Beeman, E. K. Miller, and R. G. Roides, "A 15-GHz Electro-Optic Measurement System for Noisy Environments," Avionics Fiber-Optics and Photonics Conference, Atlanta, GA, 11–13 November 2014.

The following presentations were made at the Fusion Power Associates 35th Annual Meeting, Washington DC, 16 December 2014.

R. L. McCrory, "Perspectives on Inertial Fusion."

T. C. Sangster, V. N. Goncharov, P. B. Radha, M. Hohenberger, R. Betti, T. R. Boehly, T. J. B. Collins, R. S. Craxton, D. H. Edgell, R. Epstein, C. J. Forrest, D. H. Froula, V. Yu. Glebov, D. R. Harding, S. X. Hu, I. V. Igumenshchev, T. J. Kessler, J. P. Knauer, J. A. Marozas, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, D. T. Michel, J. F. Myatt, S. P. Regan, W. Seka, W. T. Shmayda, A. Shvydky, C. Stoeckl, J. A. Frenje, M. Gatu Johnson, R. D. Petrasso, H. G. Rinderknecht, M. Rosenberg, D. T. Casey, S. LePape, A. J. Mackinnon, R. J. Wallace, A. Nikroo, M. Farrell, S. P. Obenschain, M. Karasik, A. Schmitt, and J. Weaver, "OMEGA Recent Results and Plans."