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# Publications and Conference Presentations

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## Publications

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- S. Chen, P. Zhang, W. Theobald, N. Saleh, M. Rever, A. Maksimchuk, and D. Umstadter, "Evidence of Ionization Blue Shift Seeding of Forward Raman Scattering," in *Advanced Accelerator Concepts: Eleventh Workshop*, edited by V. Yakimenko (American Institute of Physics, Melville, NY, 2004), Vol. 737, pp. 585–591.
- T. J. B. Collins, A. Poludnenko, A. Cunningham, and A. Frank, "Shock Propagation in Deuterium-Tritium-Saturated Foam," *Phys. Plasmas* **12**, 062705 (2005).
- R. S. Craxton and D. W. Jacobs-Perkins, "The Saturn Target for Polar Direct Drive on the National Ignition Facility," *Phys. Rev. Lett.* **94**, 095002 (2005).
- R. S. Craxton, F. J. Marshall, M. J. Bonino, R. Epstein, P. W. McKenty, S. Skupsky, J. A. Delettrez, I. V. Igumenshchev, D. W. Jacobs-Perkins, J. P. Knauer, J. A. Marozas, P. B. Radha, and W. Seka, "Polar Direct Drive: Proof-of-Principle Experiments on OMEGA and Prospects for Ignition on the National Ignition Facility," *Phys. Plasmas* **12**, 056304 (2005) (invited).
- V. N. Goncharov and D. Li, "Effects of Temporal Density Variation and Convergent Geometry on Nonlinear Bubble in Classical Rayleigh–Taylor Instability," *Phys. Rev. E* **71**, 046306 (2005).
- L. Guazzotto and R. Betti, "Magnetohydrodynamics Equilibria with Toroidal and Poloidal Flow," *Phys. Plasmas* **12**, 056107 (2005) (invited).
- D. R. Harding, F.-Y. Tsai, E. L. Alfonso, S. H. Chen, A. K. Knight, and T. N. Blanton, "Properties of Vapor-Deposited Polyimides," in *Polyimides and Other High Temperature Polymers: Synthesis, Characterizations and Applications*, edited by K. L. Mittal (VSP, Utrecht, The Netherlands, 2005), Vol. 3, pp. 49–67 (invited).
- B. Hu, R. Betti, and J. Manickam, "Application of the Low-Frequency Energy Principle to Wall Modes," *Phys. Plasmas* **12**, 057301 (2005).
- J. Kitaygorsky, J. Zhang, A. Verevkin, A. Sergeev, A. Korneev, V. Matvienko, P. Kouminov, K. Smirnov, B. Voronov, G. Gol'tsman, and R. Sobolewski, "Origin of Dark Counts in Nanostructured NbN Single-Photon Detectors," *IEEE Trans. Appl. Supercond.* **15**, 545 (2005).
- J. P. Knauer, K. Anderson, R. Betti, T. J. B. Collins, V. N. Goncharov, P. W. McKenty, D. D. Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, V. A. Smalyuk, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Improved Target Stability Using Picket Pulses to Increase and Shape the Ablator Adiat," *Phys. Plasmas* **12**, 056306 (2005) (invited).
- A. Korneev, V. Matvienko, O. Minaeva, I. Milostnaya, I. Rubtsova, G. Chulkova, K. Smirnov, V. Voronov, G. Gol'tsman, W. Słysz, A. Pearlman, A. Verevkin, and R. Sobolewski, "Quantum Efficiency and Noise Equivalent Power of Nanostructured, NbN, Single-Photon Detectors in the Wavelength Range from Visible to Infrared," *IEEE Trans. Appl. Supercond.* **15**, 571 (2005).
- T. Z. Kosc, "Particle Display Technologies Become E-Paper," *Opt. Photonics News* **16**, 18 (2005).
- X. Li, Y. Xu, Š. Chromik, V. Štrbík, P. Odier, D. De Barros, and R. Sobolewski, "Time-Resolved Carrier Dynamics in Hg-Based High-Temperature Superconducting Photodetectors," *IEEE Trans. Appl. Supercond.* **15**, 622 (2005).
- F. J. Marshall, R. S. Craxton, J. A. Delettrez, D. H. Edgell, L. M. Elasky, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, R. Janezic, R. L. Keck, J. D. Kilkenny, J. P. Knauer, S. J. Loucks, L. D. Lund, R. L. McCrory, P. W. McKenty, D. D.

Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, W. Seka, V. A. Smalyuk, J. M. Soures, C. Stoeckl, S. Skupsky, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Direct-Drive, Cryogenic Target Implosions on OMEGA," *Phys. Plasmas* **12**, 056302 (2005) (invited).

M. Mikulics, M. Marso, P. Javorka, P. Kordoš, H. Lüth, M. Kocan, A. Rizzi, S. Wu, and R. Sobolewski, "Ultrafast Metal-Semiconductor-Metal Photodetectors on Low-Temperature-Grown GaN," *Appl. Phys. Lett.* **86**, 211110 (2005).

S. Papernov and A. W. Schmid, "Two Mechanisms of Crater Formation in Ultraviolet-Pulsed-Laser Irradiated SiO<sub>2</sub> Thin Films with Artificial Defects," *J. Appl. Phys.* **97**, 114906 (2005).

A. Pearlman, A. Cross, W. Stysz, J. Zhang, A. Verevkin, M. Currie, A. Korneev, P. Kouminov, K. Smirnov, B. Voronov, G. Gol'tsman, and R. Sobolewski, "Gigahertz Counting Rates of NbN Single-Photon Detectors for Quantum Communications," *IEEE Trans. Appl. Supercond.* **15**, 579 (2005).

G. P. Pepe, L. Parlato, R. Latempa, P. D'Acunto, N. Marrocco, C. De Lisio, C. Altucci, G. Peluso, A. Barone, T. Taneda, and R. Sobolewski, "Fabrication and Optical Properties of Ultrathin Ferromagnet/Superconductor Metallic Bilayers," *IEEE Trans. Appl. Supercond.* **15**, 2942 (2005).

P. B. Radha, T. J. B. Collins, J. A. Delettrez, Y. Elbaz, R. Epstein, V. Yu. Glebov, V. N. Goncharov, R. L. Keck, J. P. Knauer, J. A. Marozas, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, S. P. Regan, T. C. Sangster, W. Seka, D. Shvarts, S. Skupsky, Y. Srebro, and C. Stoeckl, "Multidimensional Analysis of Direct-Drive, Plastic-Shell Implosions on OMEGA," *Phys. Plasmas* **12**, 056307 (2005) (invited).

J. A. Randi, J. C. Lambropoulos, and S. D. Jacobs, "Subsurface Damage in Some Single Crystalline Optical Materials," *Appl. Opt.* **44**, 2241 (2005).

S. P. Regan, J. A. Marozas, R. S. Craxton, J. H. Kelly, W. R. Donaldson, P. A. Jaanimagi, D. Jacobs-Perkins, R. L. Keck, T. J. Kessler, D. D. Meyerhofer, T. C. Sangster, W. Seka, V. A. Smalyuk, S. Skupsky, and J. D. Zuegel, "Performance of a

1-THz-Bandwidth, Two-Dimensional Smoothing by Spectral Dispersion and Polarization Smoothing of High-Power, Solid-State Laser Beams," *J. Opt. Soc. Am. B* **22**, 998 (2005).

S. P. Regan, T. C. Sangster, D. D. Meyerhofer, K. Anderson, R. Betti, T. R. Boehly, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, R. Epstein, O. V. Gotchev, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, P. A. Jaanimagi, J. P. Knauer, S. J. Loucks, L. D. Lund, J. A. Marozas, F. J. Marshall, R. L. McCrory, P. W. McKenty, S. F. B. Morse, P. B. Radha, W. Seka, S. Skupsky, H. Sawada, V. A. Smalyuk, J. M. Soures, C. Stoeckl, B. Yaakobi, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Direct-Drive Inertial Confinement Fusion Implosions on OMEGA," *Astrophys. Space Sci.* **298**, 227 (2005).

V. A. Smalyuk, J. A. Delettrez, S. B. Dumanis, R. Epstein, V. Yu. Glebov, D. D. Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, C. Stoeckl, N. C. Toscano, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, and J. A. Koch, "Hot-Core Characterization of Direct-Drive Spherical Cryogenic D<sub>2</sub> Target Implosion," *Phys. Plasmas* **12**, 052706 (2005).

V. A. Smalyuk, V. N. Goncharov, T. R. Boehly, J. A. Delettrez, D. Y. Li, J. A. Marozas, A. V. Maximov, D. D. Meyerhofer, S. P. Regan, and T. C. Sangster, "Measurements of Laser-Imprinting Sensitivity to Relative Beam Mistiming in Planar Plastic Foils Driven by Multiple Overlapping Laser Beams," *Phys. Plasmas* **12**, 072703 (2005).

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X. Teng and H. Yang, "Synthesis of Magnetic Nanocomposites and Alloys from Platinum-Iron Oxide Core-Shell Nanoparticles," *Nanotechnology* **16**, S554 (2005).

X. Teng and H. Yang, "Synthesis of Platinum Multipods: An Induced Anisotropic Growth," *Nano Lett.* **5**, 885 (2005).

Y. Wang and H. Yang, "Synthesis of CoPt Nanorods in Ionic Liquids," *J. Am. Chem. Soc.* **127**, 5316 (2005).

B. Yaakobi, C. Stoeckl, W. Seka, J. A. Delettrez, T. C. Sangster, and D. D. Meyerhofer, "Measurement of Preheat Due to Fast Electrons in Laser Implosions of Cryogenic Deuterium Targets," *Phys. Plasmas* **12**, 062703 (2005).

J. K. W. Yang, E. Dauler, A. Ferri, A. Pearlman, A. Verevkin, G. Gol'tsman, B. Voronov, R. Sobolewski, W. E. Keicher, and K. K. Berggren, "Fabrication Development for Nanowire GHz-Counting-Rate Single-Photon Detectors," *IEEE Trans. Appl. Supercond.* **15**, 626 (2005).

### Forthcoming Publications

Y. V. Artemova, G. S. Bisnovaty-Kogan, I. V. Igumenshev, and I. D. Novikov, "Black Hole Advective Accretion with Optical Depth Transition," to be published in the *Astrophysical Journal*.

V. Bagnoud, I. A. Begishev, M. J. Guardalben, J. Puth, and J. D. Zuegel, "A 5-Hz, 250-mJ Optical Parametric Chirped-Pulse Amplifier at 1053 nm with New Ideal Performance," to be published in *Optics Letters*.

D. Clay, D. Poslunsy, M. Flinders, S. D. Jacobs, and R. Cutler, "Effect of  $\text{LiAl}_5\text{O}_8$  Additions on the Sintering and Optical Transparency of  $\text{LiAlON}$ ," to be published in the *Journal of European Ceramic Society*.

S. Costea, S. Pisana, N. P. Kherani, F. Gaspari, T. Kostas, W. T. Shmayda, and S. Zukotynski, "The Use of Tritium in the Study of Defects in Amorphous Silicon," to be published in *Fusion Science and Technology*.

J. E. DeGroote, A. E. Marino, K. E. Spencer, and S. D. Jacobs, "Power Spectral Density Plots Inside MRF Spots Made with a Polishing Abrasive-Free MR Fluid," to be published in the *Proceedings of Optifab*.

W. R. Donaldson, M. Millecchia, and R. L. Keck, "A Multichannel, High-Resolution, UV Spectrometer for Laser Fusion Applications," to be published in *Review of Scientific Instruments*.

D. H. Edgell, W. Seka, R. S. Craxton, L. M. Elasky, D. R. Harding, R. L. Keck, and M. D. Wittman, "Analysis of Cryogenic Target Shadowgraphs at LLE," to be published in *Fusion Science and Technology*.

R. A. Forties and F. J. Marshall, "*In-Situ* Characterization of High-Intensity Laser Beams on OMEGA," to be published in *Review of Scientific Instruments*.

D. R. Harding, T. C. Sangster, D. D. Meyerhofer, P. W. McKenty, L. D. Lund, and T. H. Hinterman, "Producing Cryogenic Deuterium Targets for Experiments on OMEGA," to be published in *Fusion Science and Technology*.

A. Jukna, I. Barboy, G. Jung, X. Li, D. Wang, R. Sobolewski, S. S. Banerjee, Y. Myasoedov, V. Plausinaitiene and A. Abrutis, "Optically-Modified Channels of Easy Vortex Motion in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  films," to be published in *Applied Physics Letters*.

A. K. Knight and D. R. Harding, "Modeling the Sensitivity of a Polymer Vapor Deposition Process to Different Operating Conditions and Parameters," to be published in *Fusion Science and Technology*.

T. Z. Kosc, K. L. Marshall, S. D. Jacobs, and J. C. Lambropoulos, "Polymer Cholesteric Liquid Crystal Flake Reorientation in an Alternating-Current Electric Field," to be published in the *Journal of Applied Physics*.

T. Kostas, N. P. Kherani, W. T. Shmayda, S. Costea, and S. Zukotynski, "Nuclear Batteries Using Tritium and Thin-Film Hydrogenated Amorphous Silicon," to be published in *Fusion Science and Technology*.

I. A. Kozhinova, H. J. Romanofsky, A. Maltsev, S. D. Jacobs, W. I. Kordonski, and S. R. Gorodkin, "Minimizing Artifact Formation in Magnetorheological Finishing of CVD ZnS Flats," to be published in *Applied Optics*.

R. L. McCrory, S. P. Regan, S. J. Loucks, D. D. Meyerhofer, S. Skupsky, R. Betti, T. R. Boehly, R. S. Craxton, T. J. B. Collins, J. A. Delettrez, D. H. Edgell, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, R. L. Keck, J. P. Knauer, J. Marcianite, J. A. Marozas, F. J. Marshall, A. V. Maximov, P. W. McKenty, J. Myatt, P. B. Radha, T. C. Sangster, W. Seka, V. A. Smalyuk, J. M. Soures, C. Stoeckl, B. Yaakobi, J. D. Zuegel, C. K. Li, R. D. Petrasso, F. H. Séguin, J. A. Frenje, S. Padalino, C. Freeman, and K. Fletcher, "Direct-Drive Inertial Confinement Fusion Research at the Laboratory for Laser Energetics: Charting the Path to Thermonuclear Ignition," to be published in *Nuclear Fusion*.

M. Mikulics, R. Adam, M. Marso, A. Förster, P. Kordoš, H. Lüth, S. Wu, X. Zheng, and R. Sobolewski, "Ultrafast Low-Temperature-Grown Epitaxial GaAs Photodetectors Transferred on Flexible Plastic Substrates," to be published in *IEEE Photonics Technology Letters*.

M. Mikulics, M. Marso, I. C. Mayorga, R. Güsten, S. Stancek, P. Kováč, S. Wu, X. Li, M. Khafizov, R. Sobolewski, E. A. Michael, R. Schieder, M. Wolter, D. Buca, A. Förster, P. Kordoš, and H. Lüth, "Photomixers Fabricated on Nitrogen-Ion-Implanted GaAs," to be published in *Applied Physics Letters*.

L. Parlato, R. Latempa, G. Peluso, G. P. Pepe, R. Cristiano, and R. Sobolewski, "Characteristic Electron-Phonon Coupling Times in Unconventional Superconductors and Implications for Optical Detectors," to be published in *Superconductor Science and Technology*.

W. T. Shmayda, R. Janezic, T. W. Duffy, D. R. Harding, and L. D. Lund, "Tritium Operations at the Laboratory for Laser Energetics," to be published in *Fusion Science and Technology*.

D. Wang, A. Verevkin, R. Sobolewski, R. Adam, A. van der Hart, and R. Franchy, "Magneto-Optical Kerr Effect Measurements and Ultrafast Coherent Spin Dynamics in Co Nano-Dots," to be published in *IEEE Transactions on Nanotechnology*.

L. J. Waxer, D. N. Maywar, J. H. Kelly, T. J. Kessler, B. E. Kruschwitz, S. J. Loucks, R. L. McCrory, D. D. Meyerhofer, S. F. B. Morse, C. Stoeckl, and J. D. Zuegel, "High-Energy Petawatt Capability for the OMEGA Laser," to be published in *Optics and Photonics News*.

B. Yaakobi, T. R. Boehly, D. D. Meyerhofer, T. J. B. Collins, B. A. Remington, P. G. Allen, S. M. Pollaine, H. E. Lorenzana, and J. H. Eggert, "EXAFS Measurements of Iron bcc-to-hcp Phase Transformation in Nanosecond-Laser Shocks," to be published in *Physical Review Letters*.

B. Yaakobi, T. R. Boehly, D. D. Meyerhofer, T. J. B. Collins, B. A. Remington, P. G. Allen, S. M. Pollaine, H. E. Lorenzana, and J. H. Eggert, "EXAFS Measurement of Iron bcc-hcp Phase Transformation in Nanosecond-Laser Shocks," to be published in *Physics of Plasmas*.

L. Zheng, J. C. Lambropoulos, and A. W. Schmid, "Molecular Dynamics Study of UV-Laser-Induced Densification of Fused Silica. II. Effects of Laser Pulse Duration, Pressure, and Temperature, and Comparison with Pressure-Induced Densification," to be published in the *Journal of Non-Crystalline Solids*.

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### Conference Presentations

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L. Guazzotto, R. Betti, and J. P. Freidberg, "Progress in the Development of a Linear MHD Stability Code for Axisymmetric Plasmas with Arbitrary Equilibrium Flow," 2005 International Sherwood Fusion Theory Conference, Stateline, NV, 11–13 April 2005.

The following presentations were made at the 16th Target Fabrication Specialist's Meeting, Scottsdale, AZ, 1–5 May 2005:

M. J. Bonino, S. G. Noyes, F. J. Marshall, R. S. Craxton, D. W. Turner, and D. R. Harding, "Fabrication of Polar-Direct-Drive Targets for the National Ignition Facility."

D. H. Edgell, W. Seka, R. S. Craxton, L. M. Elasky, D. R. Harding, R. L. Keck, and M. D. Wittman, "Analysis of Cryogenic Target Shadowgraphs at LLE."

L. M. Elasky, S. Verbridge, D. H. Edgell, and D. R. Harding, "Improvements and Present Limitations of D<sub>2</sub> Ice Layers for OMEGA Cryogenic Targets."

R. Q. Gram and D. R. Harding, "Thermal Conductivity of Solid, Liquid, and Gaseous D<sub>2</sub> and Precise Thermometry Using an Embedded Pt Wire."

D. R. Harding, M. D. Wittman, L. M. Elasky, R. Q. Gram, M. J. Bonino, L. D. Lund, R. Janezic, S. Verbridge, S. Scarantino, and M. Bobeica, "Overview of Cryogenic Target Research at LLE."

A. K. Knight and D. R. Harding, "Modeling the Sensitivity of a Polymer Vapor Deposition Process to Different Operating Conditions and Parameters."

D. D. Meyerhofer, "Innovative Target Designs for Direct-Drive Ignition."

W. T. Shmayda, D. R. Harding, L. D. Lund, R. Janezic, and T. W. Duffy, "Handling Cryogenic DT Targets at the Laboratory for Laser Energetics."

D. Turner, M. J. Bonino, S. G. Noyes, R. Q. Gram, K. J. Lintz, S. Scarantino, S. Verbridge, and D. R. Harding, "Fabricating, Testing, and Fielding of Planar Cryogenic and X-Ray Scattering Targets."

M. D. Wittman and D. R. Harding, "Freezing Behavior of H<sub>2</sub>-HD-D<sub>2</sub> Mixtures."

J. E. DeGroot, A. E. Marino, K. E. Spencer, and S. D. Jacobs, "Power Spectral Density Plots Inside MRF Spots Made with a Polishing Abrasive-Free MR Fluid," Optifab 2005, Rochester, NY, 2–5 May 2005.

The following presentations were made at ICONO/LAT 2005, St. Petersburg, Russia, 11–15 May 2005:

A. V. Okishev, "OMEGA EP (Extended Performance): Adding High-Energy, Short-Pulse Capability to the OMEGA Facility."

A. V. Okishev, K. P. Dolgaleva, and J. D. Zuegel, "Experimental Optimization of Diode-Pumped Yb:GdCOB Laser Performance for Broadband Amplification at 1053 nm."

A. V. Okishev, R. G. Roides, I. A. Begishev, and J. D. Zuegel, "All-Solid-State, Diode-Pumped, Multiharmonic Laser System for a Timing Fiducial."

The following presentations were made at CLEO 2005, Baltimore, MD, 22–27 May 2005:

V. Bagnoud, J. Puth, I. A. Begishev, J. Bromage, M. J. Guardalben, and J. D. Zuegel, "A Multiterawatt Laser Using a High-Contrast, Optical Parametric Chirped-Pulse Pre-amplifier."

Z. Jiang and J. R. Marciante, "Mode-Area Scaling of Helical-Core, Dual-Clad Fiber Lasers and Amplifiers."

J. R. Marciante and J. D. Zuegel, "High-Gain, Polarization Preserving, Yb-Doped Fiber Amplifier for Low-Duty-Cycle Pulse Amplification."

N. G. Usechak and G. P. Agrawal, "An Analytic Technique for Investigating Mode-Locked Lasers."

N. G. Usechak and G. P. Agrawal, "Pulse-Switching and Stability in FM Mode-Locked Fiber Lasers."

S. G. Lukishova, A. W. Schmid, R. Knox, P. Freivald, R. W. Boyd, C. R. Stroud, Jr., and K. L. Marshall, "Deterministically Polarized Fluorescence from Single-Dye Molecules Aligned in Liquid Crystal Host," QELS 2005, Baltimore, MD, 22–27 May 2005.

The following presentations were made at the 32nd IEEE International Conference on Plasma Science, Monterey, CA, 18–23 June 2005:

V. Yu. Glebov, R. A. Lerche, C. Stoeckl, G. J. Schmid, T. C. Sangster, J. A. Koch, T. W. Phillips, C. Mileham, and S. Roberts, “Progress with CVD Diamond Detectors for ICF Time-of-Flight Applications.”

W. Theobald, T. R. Boehly, E. Vianello, J. E. Miller, R. S. Craxton, V. N. Goncharov, I. V. Igumenshchev, D. D. Meyerhofer, D. G. Hicks, P. M. Celliers, and G. W. Collins, “Direct-Drive Shockwave-Timing Experiments in Planar Targets” (invited).

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The following presentations were made at the 35th Annual Anomalous Absorption Conference, Fajardo, Puerto Rico, 26 June–1 July 2005:

R. S. Craxton, F. J. Marshall, M. J. Bonino, V. Yu. Glebov, J. P. Knauer, S. G. Noyes, W. Seka, and V. A. Smalyuk, “Polar-Direct-Drive Experiments on OMEGA Using Saturn Targets.”

R. Epstein, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, I. V. Igumenshchev, F. J. Marshall, J. A. Marozas, P. W. McKenty, P. B. Radha, S. Skupsky, and V. A. Smalyuk, “Numerical Investigation of X-Ray Core Images from OMEGA Implosions Driven with Controlled Polar Illumination.”

V. N. Goncharov, O. V. Gotchev, and C. Cherfils-Clérouin, “Ablative Richtmyer–Meshkov Instability as a Test of Thermal Conduction Models Used in Hydrosimulations of ICF Experiments.”

A. V. Maximov, “Electron Heat Transport in the Laser Field in Direct-Drive ICF Plasmas.”

S. P. Regan, H. Sawada, T. R. Boehly, I. V. Igumenshchev, V. N. Goncharov, T. C. Sangster, D. D. Meyerhofer, B. Yaakobi, G. Gregori, D. G. Hicks, S. H. Glenzer, and O. L. Landen, “Diagnosing Shock-Heated, Direct-Drive Plastic Targets with Spectrally Resolved X-Ray Scattering.”

T. C. Sangster, R. S. Craxton, J. A. Delettrez, D. H. Edgell, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, D. Jacobs-Perkins, J. P. Knauer, S. J. Loucks, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, P. B. Radha, S. P. Regan, W. Seka, V. A. Smalyuk, J. M. Soures, C. Stoeckl, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, “High-Performance Direct-Drive Implosions Using Cryogenic D<sub>2</sub> Fuel.”

W. Seka, H. Baldis, A. V. Maximov, J. Myatt, R. W. Short, R. S. Craxton, R. E. Bahr, and T. C. Sangster, “Various Forms of Stimulated Brillouin Scattering in Long-Scale-Length Plasmas Relevant to Direct-Drive Inertial Confinement Fusion.”

R. W. Short and J. Myatt, “Micro-Instabilities of Relativistic Electron Beams in Plasmas.”

V. A. Smalyuk, O. Sadot, J. A. Delettrez, D. D. Meyerhofer, S. P. Regan, and T. C. Sangster, “Nonlinear Rayleigh–Taylor Growth Measurements on OMEGA.”

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The following presentations were made at the 8th International Workshop on Fast Ignition Targets, Tarragona, Spain, 29 June–1 July 2005:

J. A. Delettrez, J. Myatt, P. B. Radha, C. Stoeckl, S. Skupsky, and D. D. Meyerhofer, “Hydrodynamic Simulations of Integrated Experiments Planned for the OMEGA/OMEGA EP Laser Systems.”

J. Myatt, J. A. Delettrez, W. Theobald, C. Stoeckl, A. V. Maximov, R. W. Short, M. Storm, T. C. Sangster, R. P. J. Town, and L. A. Cottrill, “Hybrid-Implicit PIC Calculations of Laser-Generated MeV Electrons in Copper Targets.”

C. Stoeckl, T. R. Boehly, R. B. Stephens, J. A. Delettrez, S. P. Hatchett, J. A. Frenje, V. Yu. Glebov, C. K. Li, J. Miller, R. D. Petrasso, F. H. Séguin, V. A. Smalyuk, W. Theobald, B. Yaakobi, and T. C. Sangster, “Fuel-Assembly Experiments with Gas-Filled, Cone-in-Shell, Fast-Ignitor Targets on OMEGA.”