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## Publications and Conference Presentations

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### Publications

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- K. U. Akli, S. B. Hansen, A. J. Kemp, R. R. Freeman, F. N. Beg, D. C. Clark, S. D. Chen, D. Hey, S. P. Hatchett, K. Highbarger, E. Giraldez, J. S. Green, G. Gregori, K. L. Lancaster, T. Ma, A. J. MacKinnon, P. Norreys, N. Patel, J. Pasley, C. Shearer, R. B. Stephens, C. Stoeckl, M. Storm, W. Theobald, L. D. Van Woerkom, R. Weber, and M. H. Key, "Laser Heating of Solid Matter by Light-Pressure-Driven Shocks at Ultrarelativistic Intensities," *Phys. Rev. Lett.* **100**, 165002 (2008).
- S.-W. Bahk, "Band-Limited Wavefront Reconstruction with Unity Frequency Response from Shack–Hartmann Slopes Measurements," *Opt. Letters* **33**, 1321 (2008).
- R. Betti, W. Theobald, C. D. Zhou, K. S. Anderson, P. W. McKenty, S. Skupsky, D. Shvarts, V. N. Goncharov, J. A. Delettrez, P. B. Radha, T. C. Sangster, C. Stoeckl, and D. D. Meyerhofer, "Shock Ignition of Thermonuclear Fuel with High Areal Densities," *J. Phys., Conf. Ser.* **112**, 022024 (2008).
- C. Dorrer, "Effect of Jitter on Linear Pulse-Characterization Techniques," *Opt. Express* **16**, 6567 (2008).
- C. Dorrer and I. Kang, "Linear Self-Referencing Techniques for Short-Optical-Pulse Characterization," *J. Opt. Soc. Am. B* **25**, A1 (2008) (invited).
- M. C. Ghilea, T. C. Sangster, D. D. Meyerhofer, R. A. Lerche, and L. Disdier, "Aperture Tolerances for Neutron-Imaging Systems in Inertial Confinement Fusion," *Rev. Sci. Instrum.* **79**, 023501 (2008).
- V. N. Goncharov, T. C. Sangster, P. B. Radha, R. Betti, T. R. Boehly, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, R. Epstein, V. Yu. Glebov, S. X. Hu, I. V. Igumenshchev, J. P. Knauer, S. J. Loucks, J. A. Marozas, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, S. P. Regan, W. Seka, S. Skupsky, V. A. Smalyuk, J. M. Soures, C. Stoeckl, D. Shvarts, J. A. Frenje, R. D. Petrasso, C. K. Li, F. Séguin, W. Manheimer, and D. G. Colombant, "Performance of Direct-Drive Cryogenic Targets on OMEGA," *Phys. Plasmas* **15**, 056310 (2008) (invited).
- V. N. Goncharov, T. C. Sangster, P. B. Radha, R. Betti, J. A. Delettrez, R. Epstein, D. R. Harding, S. X. Hu, I. V. Igumenshchev, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, S. P. Regan, W. Seka, D. Shvarts, S. Skupsky, V. A. Smalyuk, C. Stoeckl, J. A. Frenje, C. K. Li, and R. D. Petrasso, "Modeling High-Compression, Direct-Drive, ICF Experiments," *J. Phys., Conf. Ser.* **112**, 022002 (2008).
- O. V. Gotchev, P. Brijesh, P. M. Nilson, C. Stoeckl, and D. D. Meyerhofer, "A Compact, Multiangle Electron Spectrometer for Ultraintense Laser-Plasma Interaction Experiments," *Rev. Sci. Instrum.* **79**, 053505 (2008).
- D. R. Harding, D. D. Meyerhofer, T. C. Sangster, S. J. Loucks, R. L. McCrory, R. Betti, J. A. Delettrez, D. H. Edgell, L. M. Elasky, R. Epstein, V. Yu. Glebov, V. N. Goncharov, S. X. Hu, I. V. Igumenshchev, D. Jacobs-Perkins, R. J. Janezic, J. P. Knauer, L. D. Lund, J. R. Marcianti, F. J. Marshall, D. N. Maywar, P. W. McKenty, P. B. Radha, S. P. Regan, R. G. Roides, W. Seka, W. T. Shmayda, S. Skupsky, V. A. Smalyuk, C. Stoeckl, B. Yaakobi, J. D. Zuegel, D. Shvarts, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Cryogenic Target-Implosion Experiments on OMEGA," *J. Phys., Conf. Ser.* **112**, 022001 (2008).
- S. X. Hu, "Heating of Frozen Rydberg Gases in a Strong Magnetic Field," *J. Phys. B: At. Mol. Opt. Phys.* **41**, 081009 (2008).
- S. X. Hu, V. A. Smalyuk, V. N. Goncharov, J. P. Knauer, P. B. Radha, I. V. Igumenshchev, J. A. Marozas, C. Stoeckl, B. Yaakobi, D. Shvarts, T. C. Sangster, P. W. McKenty, D. D. Meyerhofer, S. Skupsky, and R. L. McCrory, "Studies of Plastic-Ablator Compressibility for Direct-Drive Inertial Confinement Fusion on OMEGA," *Phys. Rev. Lett.* **100**, 185003 (2008).

- I. V. Igumenshchev, "Magnetically Arrested Disks and the Origin of Poynting Jets: A Numerical Study," *Astrophys. J.* **677**, 317 (2008).
- I. Kang, S. Chandrasekhar, L. Buhl, P. G. Bernasconi, X. Liu, C. R. Giles, C. Kazmierski, N. Dupuis, J. Decobert, F. Alexandre, C. Jany, A. Garreau, J. Landreau, M. Rasras, M. Cappuzzo, L. T. Gomez, Y. F. Chen, M. P. Earnshaw, J. Lee, A. Leven, and C. Dorrer, "A Hybrid Electroabsorption Modulator Device for Generation of High Spectral-Efficiency Optical Modulation Formats," *Opt. Express* **16**, 8480 (2008).
- I. Kang, C. Dorrer, L. Zhang, M. Dinu, M. Rasras, L. L. Buhl, S. Cabot, A. Bhardwaj, X. Liu, M. A. Cappuzzo, L. Gomez, A. Wong-Foy, Y. F. Chen, N. K. Dutta, S. S. Patel, D. T. Neilson, C. R. Giles, A. Piccirilli, and J. Jaques, "Characterization of the Dynamical Processes in All-Optical Signal Processing Using Semiconductor Optical Amplifiers," *IEEE J. Sel. Top. Quantum Electron.* **14**, 758 (2008) (invited).
- C. Kim, J. U. Wallace, S. H. Chen, and P. B. Merkel, "Effects of Dilution, Polarization Ratio, and Energy Transfer on Photoalignment of Liquid Crystals Using Coumarin-Containing Polymer Films," *Macromolecules* **41**, 3075 (2008).
- D. N. Maywar, J. H. Kelly, L. J. Waxer, S. F. B. Morse, I. A. Begishev, J. Bromage, C. Dorrer, J. L. Edwards, L. Folsbee, M. J. Guardalben, S. D. Jacobs, R. Jungquist, T. J. Kessler, R. W. Kidder, B. E. Kruschwitz, S. J. Loucks, J. R. Marciantie, R. L. McCrory, D. D. Meyerhofer, A. V. Okishev, J. B. Oliver, G. Pien, J. Qiao, J. Puth, A. L. Rigatti, A. W. Schmid, M. J. Shoup III, C. Stoeckl, K. A. Thorp, and J. D. Zuegel, "OMEGA EP High-Energy Petawatt Laser: Progress and Prospects," *J. Phys., Conf. Ser.* **112**, 032007 (2008).
- R. L. McCrory, D. D. Meyerhofer, R. Betti, R. S. Craxton, J. A. Delettrez, D. H. Edgell, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, D. W. Jacobs-Perkins, J. P. Knauer, F. J. Marshall, P. W. McKenty, P. B. Radha, S. P. Regan, T. C. Sangster, W. Seka, R. W. Short, S. Skupsky, V. A. Smalyuk, J. M. Soures, C. Stoeckl, B. Yaakobi, D. Shvarts, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Progress in Direct-Drive Inertial Confinement Fusion Research," *Phys. Plasmas* **15**, 055503 (2008) (invited).
- M. Mikulics, M. Marso, S. Wu, A. Fox, M. Lepsa, D. Grützmacher, R. Sobolewski, and P. Kordoš, "Sensitivity Enhancement of Metal-Semiconductor-Metal Photodetectors on Low-Temperature-Grown GaAs Using Alloyed Contacts," *IEEE Photon. Technol. Lett.* **20**, 1054 (2008).
- M. Nakatsutsumi, J. R. Davies, R. Kodama, J. S. Green, K. L. Lancaster, K. U. Akli, F. N. Beg, S. N. Chen, D. Clark, R. R. Freeman, C. D. Gregory, H. Habara, R. Heathcote, D. S. Hey, K. Highbarger, P. Jaanimagi, M. H. Key, K. Krushelnick, T. Ma, A. MacPhee, A. J. MacKinnon, H. Nakamura, R. B. Stephens, M. Storm, M. Tampo, W. Theobald, L. Van Woerkom, R. L. Weber, M. S. Wei, N. C. Woolsey, and P. A. Norreys, "Space and Time Resolved Measurements of the Heating of Solids to Ten Million Kelvin by a Petawatt Laser," *New J. Phys.* **10**, 043046 (2008).
- P. Nilson, W. Theobald, J. Myatt, C. Stoeckl, M. Storm, O. V. Gotchev, J. D. Zuegel, R. Betti, D. D. Meyerhofer, and T. C. Sangster, "High-Intensity Laser-Plasma Interactions in the Refluxing Limit," *Phys. Plasmas* **15**, 056308 (2008) (invited).
- S. P. Regan, T. C. Sangster, D. D. Meyerhofer, W. Seka, R. Epstein, S. J. Loucks, R. L. McCrory, C. Stoeckl, V. Yu. Glebov, O. S. Jones, D. Callahan, P. A. Amendt, N. B. Meezan, L. J. Suter, M. D. Rosen, O. L. Landen, E. L. DeWald, S. H. Glenzer, C. Sorce, S. Dixit, R. E. Turner, and B. MacGowan, "Hohlraum Energetics and Implosion Symmetry with Elliptical Phase Plates Using a Multi-Cone Beam Geometry on OMEGA," *J. Phys., Conf. Ser.* **112**, 022077 (2008).
- T. C. Sangster, V. N. Goncharov, P. B. Radha, V. A. Smalyuk, R. Betti, R. S. Craxton, J. A. Delettrez, D. H. Edgell, V. Yu. Glebov, D. R. Harding, D. Jacobs-Perkins, J. P. Knauer, F. J. Marshall, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, S. P. Regan, W. Seka, R. W. Short, S. Skupsky, J. M. Soures, C. Stoeckl, B. Yaakobi, D. Shvarts, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "High-Areal-Density Fuel Assembly in Direct-Drive Cryogenic Implosions," *Phys. Rev. Lett.* **100**, 185006 (2008).
- W. Seka, D. H. Edgell, J. P. Knauer, J. F. Myatt, A. V. Maximov, R. W. Short, T. C. Sangster, C. Stoeckl, R. E. Bahr, R. S. Craxton, J. A. Delettrez, V. N. Goncharov, I. V. Igumenshchev, and D. Shvarts, "Time-Resolved Absorption in Cryogenic and Room-Temperature Direct-Drive Implosions," *Phys. Plasmas* **15**, 056312 (2008) (invited).
- D. Shvarts, V. A. Smalyuk, R. Betti, J. A. Delettrez, D. H. Edgell, V. Yu. Glebov, V. N. Goncharov, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, F. J. Marshall, P. B. Radha, S. P. Regan, T. C. Sangster, W. Seka, S. Skupsky, C. Stoeckl, B. Yaakobi, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "The Role of Fast-Electron Preheating in Low-Adiabatic Cryogenic Implosions on OMEGA," *J. Phys., Conf. Ser.* **112**, 022005 (2008).

V. A. Smalyuk, D. Shvarts, R. Betti, J. A. Delettrez, D. H. Edgell, V. Yu. Glebov, V. N. Goncharov, R. L. McCrory, D. D. Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, W. Seka, S. Skupsky, C. Stoeckl, B. Yaakobi, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Role of Hot-Electron Preheating in the Compression of Direct-Drive Imploding Targets with Cryogenic  $D_2$  Ablators," *Phys. Rev. Lett.* **100**, 185005 (2008).

A. A. Solodov and R. Betti, "Stopping Power and Range of Energetic Electrons in Dense Plasmas of Fast-Ignition Fusion Targets," *Phys. Plasmas* **15**, 042707 (2008).

W. Theobald, R. Betti, C. Stoeckl, K. S. Anderson, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, F. J. Marshall, D. N. Maywar, R. L. McCrory, D. D. Meyerhofer, P. B. Radha, T. C. Sangster, W. Seka, D. Shvarts, V. A. Smalyuk, A. A. Solodov,

B. Yaakobi, C. D. Zhou, J. A. Frenje, C. K. Li, F. H. Séguin, R. D. Petrasso, and L. J. Perkins, "Initial Experiments on the Shock-Ignition Inertial Confinement Fusion Concept," *Phys. Plasmas* **15**, 056306 (2008).

A. Trajkovska Petkoska, T. Z. Kosc, K. L. Marshall, K. Hasman, and S. D. Jacobs, "Motion of Doped-Polymer-Cholesteric Liquid Crystal Flakes in a Direct-Current Electric Field," *J. Appl. Phys.* **103**, 094907 (2008).

B. Yaakobi, T. R. Boehly, T. C. Sangster, D. D. Meyerhofer, B. A. Remington, P. G. Allen, S. M. Pollaine, H. E. Lorenzana, K. T. Lorenz, and J. A. Hawreliak, "Extended X-Ray Absorption Fine Structure Measurements of Quasi-Isentropically Compressed Vanadium Targets on the OMEGA Laser," *Phys. Plasmas* **15**, 062703 (2008).

### Forthcoming Publications

S.-W. Bahk, J. Bromage, I. A. Begishev, C. Mileham, C. Stoeckl, M. Storm, and J. D. Zuegel, "On-Shot Focal-Spot Characterization Technique Using Phase Retrieval," to be published in *Applied Optics*.

A. M. Cok, R. S. Craxton, and P. W. McKenty, "Polar-Drive Designs for Optimizing Neutron Yields on the National Ignition Facility," to be published in *Physics of Plasmas*.

C. Dorrer, J. Bromage, and J. D. Zuegel, "High-Dynamic-Range, Single-Shot Cross-Correlator Based on an Optical Pulse Replicator," to be published in *Optics Express*.

T. Duffy, W. T. Shmayda, R. Janezic, S. J. Loucks, and J. Reid, "LLE's High-Pressure DT-Fill-Process Control System," to be published in *Fusion Science and Technology*.

M. J. Guardalben, "Littrow Angle Method to Remove Alignment Errors in Grating Pulse Compressors," to be published in *Applied Optics*.

S. X. Hu, V. A. Smalyuk, V. N. Goncharov, S. Skupsky, T. C. Sangster, D. D. Meyerhofer, and D. Shvarts, "Validating Thermal Transport Modeling with Planar-Foil Experiments on OMEGA," to be published in *Physical Review Letters*.

H. Irie, Q. Diduck, M. Margala, R. Sobolewski, and M. J. Feldman, "Nonlinear Characteristics of T-Branch Junctions—Transition from Ballistic to Diffusive Regime," to be published in *Applied Physics Letters*.

Z. Jiang and J. R. Marciante, "Comments on 'Beam Quality Factor of Higher Order Modes in a Step-Index Fiber,'" to be published in the *Journal of Lightwave Technology*.

W. Manheimer, D. Colombant, and V. Goncharov, "The Development of a Krook Model for Nonlocal Transport in Laser Produced Plasmas. I. Basic Theory," to be published in *Physics of Plasmas*.

P. M. Nilson, L. Willingale, M. C. Kaluza, C. Kamperidis, S. Minardi, M. S. Wei, P. Fernandes, M. Notley, S. Bandyopadhyay, M. Sherlock, R. J. Kingham, M. Tatarakis, Z. Najmudin, W. Rozmus, R. G. Evans, M. G. Haines, A. E. Dangor, and K. Krushelnick, "Bi-Directional Jet Formation During Driven Magnetic Reconnection in Two-Beam Laser-Plasma Interaction," to be published in *Physics of Plasmas*.

J. Qiao, A. Kalb, T. Nguyen, J. Bunkenburg, D. Canning, and J. H. Kelly, "Demonstration of Large-Aperture, Tiled-Grating Compressors for High-Energy Petawatt-Class Chirped-Pulse-Amplification Systems," to be published in *Optics Letters*.

M. J. Quinlan, W. T. Shmayda, S. Lim, S. Salnikov, Z. Chambers, E. Pollock, and W. U. Schröder, "Effects of  $H_2O$  and  $H_2O_2$  on Thermal Desorption of Tritium from Stainless Steel," to be published in *Fusion Science and Technology*.

S. N. Shafrir, S. D. Jacobs, S. Adar, C. Miao, H. Romanofsky, and J. C. Lambropoulos, "Drag Force and Surface Texture in Material Removal with MRF on Optical Glass and Hard

Ceramics,” to be published in the Proceedings of the 12th Electromagnetic Symposium.

A. Simon, “Response to ‘Comment on “An Alternative Analysis of Some Recent Diffusion Experiments on the LAPD Device” ’ [Phys. Plasmas **15**, 022507 (2008)],” to be published in Physics of Plasmas.

V. A. Smalyuk, S. X. Hu, V. N. Goncharov, D. D. Meyerhofer, T. C. Sangster, D. Shvarts, C. Stoeckl, B. Yaakobi, J. A. Frenje, and R. D. Petraso, “Rayleigh–Taylor Growth Stabilization in Direct-Drive Plastic Targets at Laser Intensities of  $\sim 1 \times 10^{15}$  W/cm<sup>2</sup>,” to be published in Physical Review Letters.

V. A. Smalyuk, S. X. Hu, V. N. Goncharov, D. D. Meyerhofer, T. C. Sangster, C. Stoeckl, and B. Yaakobi, “Systematic Study of Rayleigh–Taylor Growth in Direct-Drive Plastic Targets in a Laser-Intensity Range of  $\sim 2 \times 10^{14}$  W/cm<sup>2</sup> to  $\sim 1.5 \times 10^{15}$  W/cm<sup>2</sup>,” to be published in Physics of Plasmas.

M. Storm, I. A. Begishev, R. J. Brown, C. Guo, D. D. Meyerhofer, C. Mileham, J. F. Myatt, P. M. Nilson, T. C. Sangster, C. Stoeckl, W. Theobald, and J. D. Zuegel, “A High-Resolution Coherent Transition-Radiation Diagnostic for Laser-Produced Electron Transport Studies,” to be published in Review of Scientific Instruments.

A. Trajkovska-Petkoska and S. D. Jacobs, “Effect of Different Dopants on Polymer Cholesteric Liquid Crystals,” to be published in Molecular Crystals and Liquid Crystals.

M. S. Wei, A. A. Solodov, J. Pasley, R. B. Stephens, D. R. Welch, and F. N. Beg, “Study of Relativistic Electron Beam Production and Transport in High-Intensity Laser Interaction with a Wire Target by Integrated LSP Modeling,” to be published in Physics of Plasmas.

Y. Zhu, J. D. Zuegel, J. R. Marciante, and H. Wu, “Distributed Waveform Generator: A New Circuit Technique for Ultra-Wideband Pulse Generation, Shaping, and Modulation,” to be published in IEEE Journal of Solid-State Circuits.

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### Conference Presentations

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The following presentations were made at HEDP/HEDLA–08, St. Louis, MO, 11–15 April 2008:

D. D. Meyerhofer, “HED Physics Opportunities on OMEGA/OMEGA EP.”

S. P. Regan, H. Sawada, D. D. Meyerhofer, P. B. Radha, J. A. Delettrez, R. Epstein, V. N. Goncharov, D. Li, V. A. Smalyuk, T. C. Sangster, B. Yaakobi, and R. C. Mancini, “Creating and Probing Matter Compressed and Heated by Shock Waves on OMEGA.”

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J. P. Knauer, S. Sublett, R. S. Craxton, T. J. B. Collins, I. V. Igumenshchev, D. D. Meyerhofer, A. Frank, and R. P. Drake, “Hydrodynamic Jet Experiments at LLE,” APS April Meeting 2008, St. Louis, MO, 12–15 April 2008.

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C. Miao, S. N. Shafir, S. Adar, H. Romanofsky, and S. D. Jacobs, “*In-Situ* Drag Force and Normal Force Measurement for Magne-

torheological Finishing (MRF) of Hard Ceramics,” 16th Symposium on Materials Research, Rochester, NY, 22 April 2008.

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S. N. Shafir, S. D. Jacobs, S. Adar, C. Miao, H. Romanofsky, and J. C. Lambropoulos, “Drag Force and Surface Texture in Material Removal with MRF on Optical Glass and Hard Ceramics,” 12th Department of Defense Electromagnetic Windows Symposium, Redstone Arsenal, AL, 28 April–1 May 2008.

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The following presentations were made at CLEO 2008, San Jose, CA, 6–8 May 2008:

S.-W. Bahk, J. Bromage, J. D. Zuegel, and J. R. Fienup, “Application of Phase Retrieval for Predicting a High-Intensity-Focused Laser Field.”

C. Dorrer, “Effect of Jitter on Linear Self-Referencing Pulse-Characterization Techniques.”

C. Dorrer, I. A. Begishev, A. V. Okishev, and J. D. Zuegel, "Extreme-Contrast Front End for High-Power Laser Systems."

C. Dorrer, J. Bromage, and J. D. Zuegel, "High-Dynamic-Range, Single-Shot Cross-Correlator Using a Pulse Replicator."

C. Dorrer, A. V. Okishev, I. A. Begishev, J. D. Zuegel, V. I. Smirnov, and L. B. Glebov, "Optical Parametric Chirped-Pulse-Amplification Contrast Enhancement by Regenerative Pump Spectral Filtering."

W. Guan and J. R. Marciante, "Suppression of Self-Pulsations in Dual-Clad Ytterbium-Doped Fiber Lasers."

A. V. Okishev, "Multimillijoule Picosecond Regenerative Differentiator-Amplifier."

J. Qiao, A. Kalb, J. H. Kelly, D. Canning, T. Nguyen, and J. Bunkenburg, "Realization of Tiled-Grating Compressors for the OMEGA EP Petawatt Laser System."

L. J. Waxer, M. J. Guardalben, J. H. Kelly, B. E. Kruschwitz, J. Qiao, I. A. Begishev, J. Bromage, C. Dorrer, J. L. Edwards, L. Folsbee, S. D. Jacobs, R. Jungquist, T. J. Kessler, R. W. Kidder, S. J. Loucks, J. R. Marciante, D. N. Maywar, R. L. McCrory, D. D. Meyerhofer, S. F. B. Morse, A. V. Okishev, J. B. Oliver, G. Pien, J. Puth, and A. L. Rigatti, "The OMEGA EP High-Energy, Short-Pulse Laser System" (invited).

The following presentations were made at the 17th Topical Conference on High-Temperature Plasma Diagnostics, Albuquerque, NM, 11–15 May 2008:

Z. A. Ali, V. Yu. Glebov, M. Cruz, T. Duffy, C. Stoeckl, S. Roberts, T. C. Sangster, R. Tommasini, and S. Throop, "Tests and Calibration of the NIF Neutron Time-of-Flight Diagnostic."

C. G. Freeman, C. Stoeckl, T. C. Sangster, T. Duffy, and C. Mileham, "A Thomson Parabola for the Multiterawatt Laser Facility."

V. Yu. Glebov, M. Moran, C. Stoeckl, T. C. Sangster, and M. Cruz, "Neutron Bang Time Detector Based on a Light Pipe."

M. Storm, C. Guo, D. D. Meyerhofer, J. Myatt, T. C. Sangster, and C. Stoeckl, "Relativistic Electron-Beam Transport Measurements" (invited).

The following presentations were made at the 18th Target Fabrication Meeting, Lake Tahoe, CA, 11–15 May 2008:

M. J. Bonino, D. R. Harding, and L. M. Elasky, "Effects of Target Assembly on the Quality of Cryogenic Ice Layers."

D. H. Edgell, M. D. Wittman, R. S. Craxton, L. M. Elasky, D. R. Harding, and W. Seka, "Three-Dimensional Characterization of Cryogenic Targets Using X-Ray Phase-Contrast Imaging and Shadowgraphy."

L. M. Elasky, S. J. Verbridge, A. J. Weaver, and D. R. Harding, "Success of Layering with DT and Developments with D<sub>2</sub> in OMEGA Cryogenic Targets."

D. R. Harding, T. B. Jones, Z. Bei, D. H. Edgell, and S. H. Chen, "Cryogenic-DT-Foam Targets: The New Frontier."

T. B. Jones, Z. Bei, and D. R. Harding, "Electric-Field-Assisted Target Fabrication."

S. J. Verbridge, A. J. Weaver, D. R. Harding, and L. M. Elasky, "Effects of Process Limitations and Shell Composition on Cryogenic Target Layers."

G. P. Wainwright and W. T. Shmayda, "Tritium Management on OMEGA at the Laboratory for Laser Energetics."

M. D. Wittman and D. R. Harding, "Performance and Capabilities of the Cryogenic Fill-Tube Target Test Facility at LLE."

The following presentations were made at the 38th Annual Anomalous Absorption Conference, Williamsburg, VA, 1–6 June 2008:

R. S. Craxton, P. W. McKenty, J. A. Marozas, and A. M. Cok, "Optimization of Neutron Yields on the NIF from Room-Temperature DT Targets."

J. A. Delettrez, V. N. Goncharov, P. B. Radha, D. Shvarts, C. Stoeckl, B. Yaakobi, A. V. Maximov, W. Seka, J. A. Frenje, J. F. Myatt, T. C. Sangster, and V. A. Smalyuk, "Simulations of the Effect of Energetic Electrons Produced from Two-Plasmon Decay in the 1-D Hydrodynamic Code *LILAC*."

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R. Epstein, J. A. Delettrez, V. N. Goncharov, P. W. McKenty, F. J. Marshall, P. B. Radha, H. Sawada, and B. Yaakobi, "Radiative-Transport Modeling Relevant to Cryogenic Implosion Simulation and Diagnosis."

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