

NTF Publications, Papers, Talks, Posters : 2011 - 2013

YEAR 2013

2013 Publications (10)

1. S. Chawla, M. Wei, R. Mishra, K. Akli, C. Chen, H. McLean, A. Morace, P. Patel, H. Sawada, Y. Sentoku, R. Stephens, and F. Beg, “*Effect of Target Material on Fast-Electron Transport and Resistive Collimation*”, Phys. Rev. Lett. **110**, 025001 (2013).
2. H. Chen, M. Nakai, Y. Sentoku, Y. Arikawa, H. Azechi, S. Fujioka, C. Keane, S. Kojima, W. Goldstein, B. R. Maddox, N. Miyanaga, T. Morita, T. Nagai, H. Nishimura, T. Ozaki, J. Park, Y. Sakawa, H. Takabe, G. Williams, and Z. Zhang, “*New insights into the laser produced electron–positron pair,*”, New J. Phys. **5**, 065010 (2013).
3. V. V. Ivanov, A. A. Anderson, D. Papp, A. L. Astanovitskiy, B. R. Talbot, J. P. Chittenden and N. Niasse, “*Current redistribution and generation of kinetic energy in the stagnated Z pinch*”, Phys. Rev. E **88**, 013108 (2013).
4. V.V. Ivanov, D. Papp, A.A. Anderson, B. Talbot, A.L. Astanovitskiy, V. Nalajala, O. Dmitriev, J.P. Chittenden, N. Niasse, S. Pikuz, and T. Shelkovenko, “*Study of Micro-pinches in Wire-array Z Pinches*”, Phys. Plasmas **20**, 112703 (2013).
5. V.L. Kantsyrev, A.S. Chuvatin, A.A. Esaulov, A.S. Safronova, L.I. Rudakov, A.L. Velikovich, K.M. Williamson, G.C. Osborne, I. Shrestha, M.E. Weller, V.V. Shlyaptseva, “*Anisotropy of radiation emitted from planar wire arrays*”, Phys. Plasmas **20**, 070702 (2013).
6. N. L. Kugland , J. S. Ross , P.-Y. Chang , R. P. Drake , G. Fiksel , D. H. Froula , S. H. Glenzer, G. Gregori , M. Grosskopf , C. Huntington , M. Koenig , Y. Kuramitsu , C. Kuranz , M. C. Levy, E. Liang , D. Martinez , J. Meinecke , F. Miniati , T. Morita , A. Pelka , C. Plechaty , R. Presura, A. Ravasio , B. A. Remington , B. Reville , D. D. Ryutov , Y. Sakawa , A. Spitkovsky , H. Takabe , H.-S. Park, “*Visualizing electromagnetic fields in laser-produced counter-streaming plasma experiments for collisionless shock laboratory astrophysics*”, Phys. Plasmas **20**, 056313 (2013).
7. R. Mishra, P. Leblanc, Y. Sentoku, M. S. Wei, and F. N. Beg, “*Collisional particle-in-cell modeling for energy transport accompanied by atomic processes in dense plasmas*”, Phys. Plasmas, **20**, 072704 (2013).
8. G.C. Osborne, V.L. Kantsyrev, A.A. Esaulov, A.S. Safronova, M.E. Weller, I. Shrestha, K.M. Williamson, V.V. Shlyaptseva, “*Implosion characteristics and applications of combined tungsten-aluminum Z-pinch planar arrays*”, High Energy Density Physics **9**, 653-660 (2013).
9. C.Plechaty, R. Presura, A.A.Esaulov, “*Focusing of an Explosive Plasma Expansion in a Transverse Magnetic Field*”, Phys. Rev. Lett. **111**, 185002 (2013).

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10. T. Yabuuchi, R. Mishra, C. McGuffey, B. Qiao, M. S. Wei, H. Sawada, Y. Sentoku, T. Ma, D. P. Higginson, K. U. Akli, D. Batani, H. Chen, L. A. Gizzi, M. H. Key, A. J. Mackinnon, H. S. McLean, P. A. Norreys, P. K. Patel, R. B. Stephens, Y. Ping, W. Theobald, C. Stoeckl, and F. N. Beg, “*Impact of extended preplasma on energy coupling in kilojoule energy relativistic laser interaction with cone wire targets relevant to fast ignition*”, New J. Phys., **15**, 015020 (2013).

2013 Papers Submitted for Publication (8)

1. V. V. Ivanov, A. A. Anderson, D. Papp, B. R. Talbot, J. P. Chittenden, N. Niasse, I. A. Begishev, “*UV laser probing diagnostics for the dense Z pinch*”, submitted to IEEE Trans. Plasma Sci. (2013).
2. V.L. Kantsyrev, A.S. Chuvatin, L.I. Rudakov, A.A. Esaulov, A.L. Velikovich, I. Shrestha, A.S. Safronova, V.V. Shlyaptseva, G.C. Osborne, A. Astanovitsky, M.E. Weller, S. Keim, A. Stafford, M.E. Cuneo, B. Jones, R.A. Vesey, “*New Compact Hohlraum Configuration with Parallel Planar Wire Array X-ray Sources at the 1.7 MA Zebra Generator*”, submitted to Phys. Rev. Lett. (2013).
3. V.L. Kantsyrev, A.S. Chuvatin, A.S. Safronova, L.I. Rudakov, A.A. Esaulov, A.L. Velikovich, I. Shrestha, A. Astanovitsky, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, S. Keim, A. Stafford, M. Cooper, “*Radiation Sources with Planar Wire Arrays and Planar Foils for ICF and High Energy Density Physics Research*”, Phys. Plasmas (accepted Nov. 2013).
4. Y. Paudel, N. Renard-Le Galloudec, Ph. Nicolai, E. d’Humieres, A. Ya. Faenov, V. L. Kantsyrev, A. S. Safronova, I. Shrestha, G. C. Osborne, V. V. Shlyaptseva, Y. Sentoku, “*Proton fountain effect in high-intensity laser target interactions*”, submitted to Phys. Plasmas (2013).
5. H.U. Rahman, F.J. Wessel, R. Presura, P. Ney, “*High Gain Fusion in a Staged Z-pinch*”, submitted to IEEE Trans. Plasma Sci. (2013).
6. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, A.S. Chuvatin, M.E. Weller, V.V. Shlyaptseva, I. Shrestha, S.F. Keim, A. Stafford, C.A. Coverdale, J.P. Apruzese, N.D. Quart, J.L. Giuliani, A.S. Chuvatin, “*Radiation from mixed Multi-Planar Wire Arrays*”, Phys. Plasmas (accepted Oct. 2013).
7. H. Sawada, M.S. Wei, S. Chawla, A. Morace, K. Akli, T. Yabuuchi, N. Nakanii, M.H. Key, P.K. Patel, A.J. Mackinnon, H.S. McLean, R.B. Stephens, F.N. Beg, “*Investigation of fast electron –induced K α x-rays in laser-produced blow-off plasma*”, submitted to Phys. Rev. E, (2013).

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8. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, J.P. Apruzese, A.S. Chuvatin, A. Stafford, S.F. Keim, V.V. Shlyaptseva, G.C. Osborne, E.E. Petkov, “*Radiation from Ag High Energy Density Z-pinch Plasmas with Applications to Lasing*”, Phys. Plasmas (accepted Nov. 2013).

2013 Conference Proceedings (4)

1. A. Anderson, V. V. Ivanov, B. Talbot, D. Papp, “*Study of ablation and implosion stages of 1 ma wire array z-pinch using uv laser diagnostics*”, Proceedings of the IEEE Pulsed Power & Plasma Science, San Francisco, California, June 16-21, 2013, submitted.
2. V. T. Davis, D. D. Davis, K. Chartkunchand, J. S. Thompson, and A. M. Covington, “*Production Of SiO_n^- And $(\text{SiO}_2)_n^-$, $n= 2, 3, 4$ Molecular And Cluster Anion Beams From A Cesium-Sputter-Type Negative Ion Source,*” 22nd International Conference on the Application of Accelerators in Research and Industry, AIP Conf. Proc. 1525, 251-254 (2013); doi 10.1063/1.4802329.
3. D. Papp, R. Presura, V. V. Ivanov, A. A. Anderson, M. S. Wallace, and B. R. Talbot, “*2d spatially resolved spectroscopic diagnostics using a single convex crystal*”, Proceedings, 19th IEEE Pulsed Power Conference (PPC), doi: 10.1109/PPC.2013.6627631.
4. H.U. Rahman, F.J. Wessel, R. Presura, P. Ney, “*High gain fusion in a Staged Z-pinch*”, 19th IEEE Pulsed Power Conference (PPC), 2013, doi: 10.1109/PPC.2013.6627562R.

2013 Invited Papers (1)

1. A.S. Safronova and V.L. Kantsyrev, “*Z-pinch Research on Radiation, Atomic and Plasma Physics*”, Stewardship Science Academic Programs Annual, DOE/NA-0019, p. 7 (2013).
Invited paper.

2013 Contributed Papers (2)

1. F.N. Beg, J. Chittenden, D. Mariscal, C.M. McGuffey, M.S. Wei, Julio Cesar Valenzuela, R. Presura, P. Wiewior, S. Haque and A. M. Covington, “*Application of Proton Deflectometry to Z-Pinch Plasma Systems at the Mega-Ampere Scale*”, submitted to 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, (November 2013).
2. K. C. Chartkunchand, K. R. Carpenter, V. T. Davis, P. A. Neill, J. S. Thompson and A. M. Covington, “*Anion Photoelectron Distribution Measurements Near Threshold Utilizing Velocity-Map Imaging Spectroscopy*”, submitted to ECAMP 11, Aarhus University, Denmark, (July 2013).

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2013 Invited Talks (12)

1. A.M. Covington, “*An Overview of Recent Scientific Activity at the Nevada Terawatt Facility*”, 2013 Stewardship Science Academic Programs (SSAP) Symposium, NNSA/DOE, Albuquerque, NM, June 27-28, 2013. Invited talk.
2. V.V. Ivanov, “*UV laser Diagnostics for the dense Z pinch*”, 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013. Invited talk.
3. V.L. Kantsyrev, L.I. Rudakov, A.S. Chuvatin, A.S. Safronova, A.A. Esaulov, A.L. Velikovich, I. Shrestha, K.M. Williamson, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, S.F. Keim, A. Stafford, “*Planar wire arrays as a perspective source for radiation physics and ICF*”, Symposium “The Power of Plasma Theory: From Fusion Energy to the Cosmos”, University of California, San Diego, CA, May 4, 2013. Invited talk.
4. V.L. Kantsyrev, A.S. Chuvatin, A.S. Safronova, L.I. Rudakov, A.A. Esaulov, A.L. Velikovich, I. Shrestha, A. Astanovitsky, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, S. Keim, A. Stafford, “*Radiation Sources with Planar Wire Arrays for ICF and High Energy Density Physics Research*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.
5. N.D. Quart, J.L. Giuliani, A. Dasgupta, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, M.E. Weller, V. Shlyaptseva, G.C. Osborne, A. Stafford, S. Keim, R.W. Clark, “*Inner-shell radiation from Wire Array Implosions on the Zebra Generator*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.
6. R. Pandit, Y. Sentoku, “*Spectral and Angular Distribution of Photons via Radiative Damping in Super Intense Laser-Matter Interaction*”, South Lake Tahoe, NV, RHED Conference, April 2-5, 2013. Invited talk.
7. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, U. I. Safronova, V.V. Shlyaptseva, I. Shrestha, G. C. Osborne, M.E. Weller, A. Stafford, S. F. Keim, M. Lorange, M. Cooper, A.S. Chuvatin, “*Radiative Signatures of Z-pinch Plasmas at UNR: from X-Pinches to Wire Arrays*”, International Conference on Plasma Science and Applications (ICPSA 2013), Singapore, Dec. 4-6, 2013. Invited talk.
8. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, U. I. Safronova, I. Shrestha, V.V. Shlyaptseva, M.E. Weller, G. C. Osborne, A. Stafford, S. F. Keim, E. E. Petkov, K. Schultz, M. Cooper, “*Z-pinch Research on Radiation, Atomic and Plasma Physics*”, 2013 Stewardship Science Academic Programs (SSAP) Symposium, NNSA/DOE, Albuquerque, NM, June 27-28, 2013. Invited talk.
9. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, A.S. Chuvatin, M.E. Weller, V.V. Shlyaptseva, I. Shrestha, S.F. Keim, A. Stafford, C.A. Coverdale, J.P. Apruzese, N.D. Quart, J.L. Giuliani, A.S. Chuvatin, “*Radiation from Multi-Planar Wire Arrays and Applications*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.

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10. I.Shrestha, V. L. Kantsyrev, A. S. Safronova, A. A. Esaulov, M. Nishio, V. V. Shlyaptseva, S. F. Keim, M.E. Weller, A. Stafford, “*Investigation of Hard X-ray and Particle Beams in Zebra Experiments*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.
11. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, G.C. Osborne, I. Shrestha, S.F. Keim, V.V. Shlyaptseva, C.A. Coverdale, A.S. Chuvatin, “*Review of Recent Mid-Z Precursor Wire Array Experiments on the Zebra Generator at UNR*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.
12. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, J.P. Apruzese, A.S. Chuvatin, A. Stafford, S.F. Keim, V.V. Shlyaptseva, G.C. Osborne, E.E. Petkov, “*Radiation from Ag High Energy Density Z-pinch Plasmas with Applications to Lasing*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013. Invited talk.

2013 Contributed Talks (11)

1. V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, H.A. Zunino, A.S. Chuvatin, L.I. Rudakov, A.L. Velikovich, B. Jones, R.A. Vesey, “*Study of Implosion Dynamics and Radiative Mechanisms of Planar Foil Liners in Comparison with Planar Wire Arrays at 1.7 MA UNR Zebra Generator*”, 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
2. D.Mariscal, C. McGuffey, J. Valenzuela, M. Wei, F. Beg, R. Presura, S. Haque, et al, “*Application of Proton Deflectometry to Z-Pinch Plasma Systems at the Mega-Ampere Scale*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
3. P.Ney, H. Rahman, F. Wessel, R. Presura, “*High gain fusion in a Staged Z-pinch*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
4. D. Papp, R. Presura, M. Wallace, B. Largent, S. Haque, A. Arias, V. Khanal, V. Ivanov, “*2D x-ray imaging spectroscopic diagnostics using convex bent crystal*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
5. I.Paraschiv, Y. Sentoku, R. Mancini, and T. Johzaki, “*Radiation transport in ultrafast heated high Z solid targets*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
6. H.U. Rahman, F.J. Wessel, P. Ney, R. Presura, “*The role of shock waves in a Z-pinch*”, 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.

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7. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, I. Shrestha, V.V. Shlyaptseva, A. Stafford, S.F. Keim, M. Lorange, A.S. Chuvatin, C. A. Coverdale, B. Jones, "New Regimes of Implosions of Large Sized Wire Arrays With and Without Modified Central Plane at 1.5-1.7 MA ZEBRA", 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, Nov. 11-15, 2013.
8. A.S. Safronova, V.L. Kantsyrev, A.Y. Faenov, U.I. Safronova, P. Wiewior, A. Stafford, V.V. Shlyaptseva, P. Wilcox, I. Shrestha, Y. Paudel, "New Spectral Signatures of Hollow Fluorine Ions from Femtosecond Laser-produced Plasmas", 11th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas, Mons, Belgium, August 5-9, 2013.
9. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, I. Shrestha, V.V. Shlyaptseva, A. Stafford, G. C. Osborne, S.F. Keim, E.E. Petkov, A.S. Chuvatin, C. A. Coverdale, B. Jones, "Radiation Signature of Large Sized Multi-Planar Wire Arrays", 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
10. I. Shrestha, V. L. Kantsyrev, A. S. Safronova, A. A. Esaulov, M. Nishio, V. V. Shlyaptseva, S. F. Keim, M.E. Weller, A. Stafford, E. Petkov, K. Schultz, M. Cooper, "Hard X-ray and Particle Beams research in 1.7 MA Z-pinch and Laser Plasma Experiments", 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, Nov. 11-15, 2013.
11. M. Wallace, N. Pereira, A. Kastengren, R. Presura, "Characterization of a quartz crystal for X-ray spectropolarimetric plasma diagnostics", 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.

2013 Poster Presentations (25)

1. A. Anderson, V. V. Ivanov, D. Papp, S. D. Altemara, "Study of Implosion in Wire Arrays with UV interferometry and Faraday Rotation Diagnostics", International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.
2. A. Arias, N. Quiros, V. Khanal, W. C. Wan, J. Meineke, N. L. Kugland, T. Morita, G. Gregori, H-S. Park, and R. Presura, "Laser-Plasma Density and Temperature Measurements with Triple Langmuir Probes", 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
3. S. Fuelling, B. S. Bauer, I. R. Lindemuth, R. E. Siemon, K. C. Yates, "Multiband Time-Resolved Spectra of Metal Surface Plasmas: Comparison of Experiment with Plasma Spectroscopic Modeling" 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013
4. S. Fuelling, B. S. Bauer, I. R. Lindemuth, R. E. Siemon, K. C. Yates, "Comparison of Modeled and Experimental EUV Spectra from Al Surface Plasma Generated by Pulsed Multi-MG Magnetic Fields" International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.

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5. S.Haque, “*Visible Spectroscopy of Z-Pinches for Magnetic Field Measurement*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.
6. S.Haque, M. S. Wallace, A. Arias, T. Morita, C. Plechaty, C. Huntington, D. Martinez, S. J. Ross, H-S. Park, and R. Presura, “*Magnetic Field Measurement in Magnetized Laser Plasmas Using Zeeman Broadening Diagnostics*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
7. M.C. Jo, V. Ivanov, S. Woolf, D. Tupa, “*Laser safety practicum*”, International Laser Safety Conference, 2013.
8. I.R. Lindemuth, R. E. Siemon, B. S. Bauer, W. L. Atchison, “*Megagauss Magnetic Fields and Surface Plasmas: Physical Insight, Computational Issues*” 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013
9. R.Pandit, Y. Sentoku, “*Spectrum and angular distribution of gamma-rays from radiative damping in extremely relativistic laser-plasma interaction*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, Nov 11- Nov 15, 2013.
10. D.Papp, V. V. Ivanov, R. Presura, A. A. Anderson, B. R. Talbot, “*Developing Imaging Spectroscopy of HED Plasmas Using a Single Convex Crystal*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.
11. D.Papp, V. V. Ivanov, R. Presura, A. A. Anderson, and B. R. Talbot, “*2D spatially resolved spectroscopy of hed plasmas using a single convex crystal*”, 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
12. I.Paraschiv and Y. Sentoku, “*Radiation Transport in PIC Modeling of Laser Interactions with High-Z Targets*”, International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.
13. N.Pereira, M. Wallace, and R. Presura, “*Extending crystal options in x-ray polarization splitting*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
14. E.E. Petkov, M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, G.C. Osborne, A. Stafford, V.V. Shlyapsteva, S.F. Keim, C. A. Coverdale, “*Extreme Ultraviolet Spectroscopy of Cu Cylindrical Wire Arrays on zebra at UNR*”, 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
15. C.Plechaty, C. Huntington, F. Fiuza, D. Ryutov, H.-S. Park, S. Ross, R. Presura, and B. Remington, “*HYDRA Simulations Relevant to Collisionless Shock Experiments to be Performed at NIF*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.
16. R.Presura, M. S. Wallace, S. Haque, A. Arias, and N. Quiros, “*Energetic Electron Beams in Conical Wire Array Z-Pinches*”, 55th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, November 11 – 15, 2013.

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17. R.Presura, M. Wallace, S. Haque, N. Quiros, and A. Arias, "*Electron beams and x-ray emission of conical wire array Z-pinches*", 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
18. V.V. Shlyaptseva, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, I. Shrestha. M. E. Weller, G.C. Osborne, S.F. Keim, "*Gold Planar Wire Array Radiation Sources at University Scale Generators and Their Applications*", International Conference on Plasma Science and Applications (ICPSA 2013), Singapore, Dec. 4-6 (2013). "One of the best posters" award.
19. V.V. Shlyaptseva, A.S. Safronova, V.L. Kantsyrev, I. Shrestha, P. Wiewior, M.E. Weller, "*Analysis and Comparison of Spectral Features of Stainless Steel X-pinches and Femtosecond Laser Flat Fe Target Experiments*", 11th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas, Mons, Belgium, August 5-9, 2013.
20. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, G.C. Osborne, I. Shrestha, S.F. Keim, V.V. Shlyaptseva, C.A. Coverdale, A.S. Chuvatin, "*Review of Recent Mid-Z Precursor Wire Array Experiments on the Zebra Generator at UNR*", 2013 Stewardship Science Academic Programs (SSAP) Symposium, NNSA/DOE, Albuquerque, NM, June 27-28, 2013.
21. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, G.C. Osborne, I. Shrestha, S.F. Keim, V.V. Shlyaptseva, C.A. Coverdale, A.S. Chuvatin, "*Analysis of Al Precursor Wire Array Experiments at the 1 MA Zebra Generator at UNR*", 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
22. M.Wallace, N. R. Pereira, A. Kastengren, and R. Presura, "*Characterization of a crystal for x-ray spectropolarimetric plasma diagnostics*", 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.
23. M.Wallace, S. Haque, A. Arias, N. Quiros, R. Presura, "*Faraday Cup Measurements of Magnetically Deflected Electron Beams in X- and Z-Pinches*", International Workshop RHEDP 2013, Lake Tahoe, April 2-5, 2013.
24. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, A. Stafford, S. Keim, V.V. Shlyaptseva, G. C. Osborne, E. E. Petkov, J.P. Apruzese, J.L. Giuliani, A.S. Chuvatin, "*Radiation from Ag High Energy Density Z-pinch Plasmas with Applications to Lasing*", 2013 Stewardship Science Academic Programs (SSAP) Symposium, NNSA/DOE, Albuquerque, NM, June 27-28, 2013.
25. K.C. Yates, B. S. Bauer, S. Fuelling, V. V. Ivanov, S. D. Altemara, D. Papp, A. A. Anderson, G. A. Wurden, T. J. Awe, R. S. Bauer, "*Plasma Formation and Evolution on a Copper Surface Driven by Mega-Ampere Current Pulse*" 40th IEEE International Conference on Plasma Science (ICOPS), San Francisco, CA, June 16-21, 2013.

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2012 Publications (26)

1. S. D. Altemara, D. Papp, V. V. Ivanov, A. A. Anderson, A. A. Astanovitskiy, and V. Nalajala, "*High-Resolution UV Laser Diagnostics on the 1-MA Zebra Generator*", IEEE Trans. Plasma Sci., Dec 2012
2. S. N. Chen, E. d'Humie`res, E. Lefebvre, L. Romagnani, T. Toncian, P. Antici, P. Audebert, E. Brambrink, C. A. Cecchetti, T. Kudyakov, A. Pipahl, Y. Sentoku, M. Borghesi, O. Willi, and J. Fuchs, "*Focusing dynamics of high-energy density, laser-driven ion beams*", Phys. Rev. Lett. **108**, 055001 (2012).
3. J. Giuliani, F. N. Beg, R. M. Gilgenbach, V. L. Kantsyrev, B. Kusse, V. V. Ivanov, R. Presura, "*Pinch Research on University Pulsed Power Generators in the United States*", IEEE Trans. Plasma Sci. PP, 99, 1-19 (2012).
4. G. Hinojosa, A.M. Covington, G. Alna-Washi, M. Lu, R. A. Phaneuf, M.M. Sant'Anna, C. Cisneros, I. Alvarez, A. Aguilar, A.L.D. Kilcoyne, A.S. Schlachter, C.P. Ballance and B. M. McLaughlin, "*Valence-shell single photoionization of Kr⁺ions: Experiment and Theory*", Phys. Rev. A., 00 003400 (Nov 2012).
5. V. V. Ivanov, J. P. Chittenden, R. C. Mancini, D. Papp, N. Niasse, S. D. Altemara, and A. A. Anderson, "*Investigation of plasma instabilities in the stagnated Z pinch*", Phys. Rev. E, **86**, 046403 (2012).
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7. N. L. Kugland, D. D. Ryutov, P.-Y. Chang, R. P. Drake, G. Fiksel, D. H. Froula, G. Gregori, M. Grosskopf, M. Koenig, Y. Kuramitsu, C. Kuranz, M. C. Levy, E. Liang, J. Meinecke, F. Miniati, T. Morita, A. Pelka, C. Plechaty, R. Presura, A. Ravasio, B. A. Remington, B. Reville, J. S. Ross, Y. Sakawa, A. Spitkovsky, H. Takabe, H.-S. Park, "*Self-organized electromagnetic field structures in laser-produced counterstreaming plasmas*", Nature Physics **8**, 809-812 (2012).
8. T. Ma, H. Sawada, P.K. Patel, C.D. Chen, L. Divol, D.P. Higginson, A.J. Kemp, M.H. Key, D.J. Larson, S. Le Pape, A. Link, A.G. MacPhee, H.S. McLean, Y. Ping, R.B. Stephens, S.C. Wilks, F.N. Beg, "*Fast electron temperature and coupling efficiencies with preplasma for cone-guided Fast Ignition*", Phys. Rev. Lett., **108**, 115004 (2012).
9. A. Nishida, N. Yugami, T. Higashiguchi, T. Otsuka, F. Suzuki, M. Nakata, Y. Sentoku, and R. Kodama, "*Experimental observation of frequency up-conversion by flash ionization*", Applied Phys. Lett. **101**, 16118 (2012).

NTF Publications, Papers, Talks, Posters : 2011 - 2013

10. G.C. Osborne, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, M.E. Weller, I. Shrestha, V.V. Shlyaptseva, and N. D. Ouart, ``*X-ray absorption spectroscopy of aluminum z-pinch plasma with tungsten backlighter planar wire array source*`, Rev. Sci. Instrum. **83**, 10E103 (2012).
11. N.D. Ouart, J.L. Giuliani, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, N.R. Pereira, I. Shrestha, K.M. Williamson, G.C. Osborne, M.E. Weller, V. Shlyaptseva, ``*Time-gated measurements of electron beam generated Ka emission lines from brass planar wire array implosions*`, High Energy Density Physics **8**, 247-252 (2012).
12. R.R. Pandit, Y. Sentoku, ``*Higher order terms of radiative damping in extreme intense laser-matter interaction*`, Phys. Plasmas, **19**, p. 073304, (2012).
13. D. Papp, V. V. Ivanov, B. Jones, A. Haboub, A. A. Anderson, S. D. Altemara, B. R. Talbot, ``*Study of the precursor and non-precursor implosion regimes in wire array Z-pinch*`, Phys. Plasmas, **19**, 092704 (2012).
14. B. S. Paradkar, T. Yabuuchi, H. Sawada, D. P. Higginson, A. Link, M. S. Wei, R. B. Stephens, S. I. Krasheninnikov, and F. N. Beg, ``*Emission of energetic protons from relativistic intensity laser interaction with a cone-wire target*`, Phys. Rev. E **86**, 056405 (2012).
15. Y. Paudel, N. Renard-Le Galloudec, E. d'Humieres, Ph. Nicolai, A. Ya. Faenov, V.L. Kantsyrev, A.S. Safronova, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva and Y. Sentoku, ``*Self-proton/ion radiography of laser-produced proton/ion beam from thin foil targets*`, Phys. Plasmas **19**, 123101 (2012).
16. Y. Ping, A. J. Kemp, L. Divol, M. H. Key, P. K. Patel, K. U. Akli, F. N. Beg, S. Chawla, C. D. Chen, R. R. Freeman, D. Hey, D. P. Higginson, L. C. Jarrott, G. E. Kemp, A. Link, H. S. McLean, H. Sawada, R. B. Stephens, D. Turnbull, B. Westover, and S. C. Wilks, ``*Dynamics of Relativistic Laser-Plasma Interaction on Solid Targets*`, Phys. Rev. Lett. **109**, 145006, (2012).
17. R. Presura, ``*Hanle Effect as Candidate for Measuring Magnetic Fields in Laboratory Plasmas*`, Rev. Sci. Instrum. **83**, 10D528 (2012).
18. H. U. Rahman, F. J. Wessel, P. Ney, R. Presura, Rahmat Ellahi, and P. K. Shukla, ``*Shock Waves in a Z-pinch and the Formation of High Energy Density Plasma*`, Phys. Plasmas **19**, 122701 (2012).
19. J. S. Ross, S. H. Glenzer, P. Amendt, R. Berger, L. Divol, N. L. Kugland, O. L. Landen, C. Plechaty, B. Remington, D. Ryutov, W. Rozmus, D. H. Froula, G. Fiksel, C. Sorce, Y. Kuramitsu, T. Morita, Y. Sakawa, H. Takabe, R. P. Drake, M. Grosskopf, C. Kuranz, G. Gregori, J. Meinecke, C. D. Murphy, M. Koenig, A. Pelka, A. Ravasio, T. Vinci, E. Liang, R. Presura, A. Spitkovsky, F. Miniati, and H.-S. Park, ``*Characterizing counter-streaming interpenetrating plasmas relevant to astrophysical collisionless shocks*`, Phys. Plasmas **19**, 056501 (2012).

NTF Publications, Papers, Talks, Posters : 2011 - 2013

20. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, V.V. Shlyaptseva, M.E. Weller, N.D. Ouart, G.C. Osborne, A. Stafford, S.F. Keim, A. L. Velikovich, J.L. Giuliani, A.S. Chuvatin, “*Producing Kiloelectronvolt L-shell Plasmas on zebra at UNR*”, IEEE Trans. Plasma Sci. **40**, 3347 (2012).
21. A.S. Safronova, V.L. Kantsyrev, A.Y. Faenov, U.I. Safronova, P. Wiewior, N. Renard-Le Galloudec, A.A. Esaulov, M.E. Weller, A. Stafford, P. Wilcox, I. Shrestha, N.D. Ouart, V. Shlyaptseva, G.C. Osborne, O. Chalyy, Y. Paudel, “*Atomic physics of relativistic high-contrast laser-produced plasmas in experiments on leopard laser facility at UNR*”, High Energy Density Physics **8**, 190 (2012).
22. G. S. Sarkisov, V. V. Ivanov, P. Leblanc, Y. Sentoku, K. Yates, P. Wiewior, O. Chalyy, and A. Astanovitskiy, V. Yu. Bychenkov, D. Jobe, and R. B Spielman, “*Propagation of a laser-driven relativistic electron beam inside a solid dielectric*”, Phys. Rev. E **86**, 036412 (2012).
23. H. Sawada, D.P. Higginson, A. Link, T. Ma, S. C. Wilks, H.S. McLean, F. Perez, P.K. Patel, and F.N. Beg, “*Characterizing the energy distribution of laser-generated relativistic electrons in cone-wire targets*”, Phys. Plasmas **19**, 103108 (2012).
24. H. Sawada, T. Yabuuchi, S.P. Regan, K. Anderson, M.S. Wei, R. Betti, J. Hund, M.H. Key, A.J. Mackinnon, H.S. McLean, R.R. Paguio, P.K. Patel, K.M. Saito, R.B. Stephens, S.C. Wilks, F.N. Beg, “*Diagnosing Laser-Driven, Shock-Heated Foam Target with Al Absorption Spectroscopy on OMEGA EP*”, High Energy Density Physics, **8**, 180-183 (2012).
25. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, C.A. Coverdale, A.S. Chuvatin, N.D. Ouart, K.M. Williamson, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, S.F. Keim, A. Stafford, “*Radiative properties of mixed nested cylindrical wire arrays on Zebra at UNR*”, High Energy Density Physics **8**, 184-189 (2012).
26. T. Yabuuchi, H. Sawada, S. P. Regan, K. Anderson, M. S. Wei, R. Betti, J. Hund, M. H. Key, A. J. Mackinnon, H. S. McLean, R. R. Paguio, P. K. Patel, K. M. Saito, R. B. Stephens, S. C. Wilks, and F. N. Beg, “*Temporally resolved characterization of shock-heated foam target with Al absorption spectroscopy for fast electron transport study*”, Phys. Plasmas **19**, 092705 (2012).

2012 Conference Proceedings (1)

1. A.Chuvatin, V. Kantsyrev, A. Astanovitskiy, R. Presura, A. Safronova, B. LeGalloudec, V. Nalajala, K. Williamson, I. Shrestha, G. Osborne, M. Weller, V. Shlyaptseva, L. Rudakov, M. Cuneo, “*Advanced Load Current Multiplier on Zebra Generator*”, Proceedings of the IEEE 18th Int. Pulsed Power Conference, pp. 975-982 (2012).

NTF Publications, Papers, Talks, Posters : 2011 - 2013

2012 Invited Papers (4)

1. A.M. Covington, “*Investigations of High Energy Density Plasmas at the Nevada Terawatt Facility*”, Invited Article, Center of Excellence Highlights, 2012 Stewardship Academic Alliance Annual Symposium, U.S. DOE National Nuclear Security Administration, DOE/NA-0018, Washington, DC, (Feb 2012). Invited paper.
2. J. L. Giuliani, F. N. Beg, R. M. Gilgenbach, V.L. Kantsyrev, B. R. Kusse, V. V. Ivanov, R. Presura, “*Plasma Pinch Research on University Pulsed-Power Generators in the United States*”, IEEE Trans. Plasma Sci. **40**, 3246-3264 (2012). Invited paper.
3. V. Kantsyrev, “*Study of a Prototype of New Hohlraum Configuration with Planar Wire Array X-ray Sources*”, 2012 Stewardship Academic Alliance Annual Symposium, U.S. DOE National Nuclear Security Administration, DOE/NA-0018, Washington, DC, (Feb 2012). Invited paper.
4. A.S. Safronova, “*Searching for Efficient X-ray Radiators for Wire Array Z-pinch Plasmas on Zebra at UNR*”, 2012 Stewardship Academic Alliance Annual Symposium, U.S. DOE National Nuclear Security Administration, DOE/NA-0018, Washington, DC, (Feb 2012). Invited paper.

2012 Contributed Papers (8)

1. K. C. Chartkunchand, K. R. Carpenter, V. T. Davis, P. A. Neill, J. S. Thompson and A. M. Covington, “*Velocity-Map Imaging Spectroscopy of Negative Ion Photodetachment*”, 44th EGAS Conference, Gothenborg Sweden, (July 2012).
2. K.C. Chartkunchand, K. R. Carpenter, V. T. Davis, P. A. Neill, J. S. Thompson, and A. M. Covington, “*Velocity-Map Imaging Spectroscopy of the Ge⁻, Sn⁻, and Pb⁻ Negative Ions*”, 43rd DAMOP Conference, Orange County CA, (June 2012).
3. D. Mariscal, M.S. Wei, F.N. Beg, J.P. Chittenden, R. Presura, P. Wiewior and A. Covington, “*Investigations of Magnetic Fields in Wire Array Z-Pinches by Proton Deflectometry*”, 39th IEEE International Conference on Plasma Science (ICOPS), Edinburgh, Scotland, UK, (July 2012).
4. Erik S. McKee, T.W. Darling and A.M. Covington, “*Development of a Pulsed Neutron Source and Neutron Diagnostics on Zebra*”, 2012 Stewardship Academic Alliance Annual Symposium, U.S. DOE National Nuclear Security Administration, DOE/NA-0018, Washington D.C. (Feb 2012).
5. R. Pandit and Y. Sentoku, “*Spectral and Angular Distribution of photons via Radiative damping in super intense laser-matter interaction*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29 – November 2, 2012.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

6. I.Paraschiv and Y. Sentoku, “*Radiation transport in PIC modeling of laser interaction with high-Z targets*”, Submitted to the 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29 – November 2, 2012.
7. Y. Paudel, N. Renard-Le Galloudec, V.L. Kantsyrev, A.S. Safronova, A.Ya. Faenov, I. Shrestha, G.C. Osborne, V. V. Shlyaptseva, Y. Sentoku, “*Hollowing and filamentation of proton beams in high-intensity laser plasma interactions*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29 – November 2, 2012.
8. V. Sotnikov, T. Kim, E. Mishin, W. Amatucci, G. Ganguli, E. Tejero, T.A. Mehlhorn, and I. Paraschiv, “*Low Frequency Plasma Turbulence as a Source of Clutterin Surveillance and Communication*”, 13th Annual Advanced Maui Optical and Space Surveillance Technologies Conference, Maui, Hawaii, (September 2012).

2012 Invited Talks (5)

1. A.M. Covington, “*Investigations of High Energy Density Plasmas at the Nevada Terawatt Facility*”, Center of Excellence Highlights, Stewardship Academic Alliance Annual, U.S. DOE National Nuclear Security Administration, DOE/NA-0018, Washington, DC, (Feb 2012). Invited talk.
2. V.L. Kantsyrev, A.S. Chuvatin, L.I. Rudakov, A.S. Safronova, A.A. Esaulov, A.L. Velikovich, A.L. Astanovitsky, I. Shrestha, G.C. Osborne, V. Nalajala, V.V. Shlyaptseva, M.E. Weller, S.F. Keim, A. Stafford, “*Study of prototype of new hohlraum configuration with planar wire array x-ray sources*”, 2012 Stewardship Science Academic Alliances (SSAA) Symposium, NNSA/DOE, Washington DC, (Feb 2012). Invited talk.
3. R. Presura, “*Laboratory diagnostics primer for astronomers*”, 9th Int. Conf. on High Energy Density Laboratory Astrophysics, Tallahassee, FL, Apr. 30 – May 4, 2012. Invited talk.
4. A.S. Safronova, A.A. Esaulov, U.I. Safronova, M.E. Weller, P.G. Wilcox, A. Stafford, H. Zunino, V.L. Kantsyrev, I. Shrestha, G.C. Osborne, V. Shlyaptseva, S.F. Keim, N.D. Quart, “*Theoretical X-ray/EUV Spectroscopy and Imaging Studies of Wire Arrays and X-pinch Plasmas*”, 2012 Stewardship Science Academic Alliances (SSAA) Symposium, NNSA/DOE, Washington DC, (Feb 2012). Invited talk.
5. H. Sawada, “*Spectra of laser generated relativistic electrons using cone-wire target*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 2012. Invited talk.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

2012 Contributed Talks (12)

1. S.Altemara, A. Anderson, D. Papp, V. Ivanov, “*Development of UV Two-Frame Imaging Diagnostics for Investigation of Plasma Dynamics in Z Pinches at Stagnation*”, 54th Annual Meeting of the Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
2. V.V. Ivanov, J.P. Chittenden, R.C. Mancini, D. Papp, N. Niasse, A.A. Andersen, S.D. Altemara, “*Study of instabilities in wire-array Z pinches at stagnation*”, 54th Annual Meeting of the Division of Plasma Physics, Providence, RI, Oct. 29-Nov. 2, 2012.
3. V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, H.A. Zunino, A.S. Chuvatin, L.I. Rudakov, A.L. Velikovich, B. Jones, R.A. Vesey, “*Study of a Prototype of a New Compact Hohlraum Configuration at the 1.7 MA UNR Zebra Generator*”, 39th IEEE International Conference on Plasma Science (ICOPS), Edinburgh, Scotland, UK, July 8-12, 2012.
4. V.L. Kantsyrev, A.S. Chuvatin, L.I. Rudakov, A.S. Safronova, A.A. Esaulov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, M.E. Weller, S.F. Keim, A. Stafford, B. Jones, R. A. Vesey, “*Experiments and Numerical Simulation on a New Hohlraum Configuration with Planar Wire Array Sources at the 1.7 MA Zebra Generator*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
5. N.D. Quart, J.L. Giuliani, A. Dasgupta, A.S. Safronova, V.L.Kantsyrev, A.A. Esaulov, I. Shrestha, M.E. Weller, V.V. Shlyaptseva, G.C. Osborne, A. Stafford, S.F. Keim, R.W. Clark, “*Simultaneous time-gated measurements of K- and L-shell radiation from brass wire array implosions on Zebra*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
6. Y.Paudel, N. Renard-Le Galloudec, V.L.Kantsyrev, A.S. Safronova, A.Ya. Faenov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, Y. Sentoku, “*Hollowing and filamentation of proton beams in high-intensity laser plasma interactions*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
7. A.S. Safronova, A.A. Esaulov, V.L. Kantsyrev, A. Stafford, M.E. Weller, V.V. Shlyaptseva, H.A. Zunino, I. Shrestha, G. C. Osborne, S.F. Keim, A.S. Chuvatin, C. A. Coverdale, “*Implosions of Larger Size Wire Arrays at Enhanced Current of 1.5-1.7 MA on Zebra with LCM*”, 39th IEEE International Conference on Plasma Science (ICOPS), Edinburgh, Scotland, UK, July 8-12, 2012.
8. A.S. Safronova, A.A. Esaulov, V.L. Kantsyrev, A.S. Chuvatin, C.A. Coverdale, B. Jones, V.V. Shlyaptseva, M.E. Weller, A. Stafford, I. Shrestha, G.C. Osborne, S.F. Keim, “*Larger Size Planar Wire Arrays with a Modified Central Plane and Their Applications on Zebra with LCM*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

9. G.S. Sarkisov, V. Ivanov, Y. Sentoku, K. Yates, Ph. Leblanc, P. Wiewior, V. Bychenkov, D. Jobe, R. Spielman, "*Laser-Driven Relativistic Electron Beam Interaction with Solid Dielectric*", International High Power Laser Ablation Conference, Santa Fe, NM, USA, May 2012.
10. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, S.F. Keim, C.A. Coverdale, A.S. Chuvatin, "*Analysis of Precursor Properties of mixed Al/Alumel Cylindrical Wire Arrays*", 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
11. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, A. Stafford, I. Shrestha, G. C. Osborne, V.V. Shlyaptseva, S.F. Keim, H.A. Zunino, A.S. Chuvatin, J.P. Apruzese, I.E. Golovkin, J.J. MacFarlane, "*Analysis of Radiation from Siver HED Plasma Sources with the Potential for Lasing*", 39th IEEE International Conference on Plasma Science (ICOPS), Edinburgh, Scotland, UK, July 8-12, 2012.
12. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, G. C. Osborne, V.V. Shlyaptseva, S.F. Keim, A. Stafford, E.E. Petkov, A.S. Chuvatin, J.P. Apruzese, I.E. Golovkin, J.J. MacFarlane, "*Theoretical Investigation of Radiation Characteristics of Silver Z-pinch Arrays with Applications*", 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.

2012 Poster Presentations (14)

1. A.Anderson, V. V. Ivanov, D. Papp, S. D. Altemara, "*Study of Implosion in Wire Arrays with UV interferometry and Faraday Rotation Diagnostics*", 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
2. V.L. Kantsyrev, A.S. Safronova, U.I. Safronova, I. Shrestha, M.E. Weller, G.C.Osborne, V.V.Shlyaptseva, P.G. Wilcox, A. Stafford, "*Advances in experimental spectroscopy of Z-pinch plasmas and applications*", 43nd Annual Meeting of the APS Division of Atomic, Molecular, and Optical Physics, Anaheim, California, June 6-8, 2012.
3. G.C. Osborne, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, M.E. Weller, I. Shrestha, V.V. Shlyaptseva, S.F. Keim, "*Combined Tungsten-Aluminum Single Planar Wire Array Studies and Applications to Pulse Shaping and Absorption Spectroscopy*", 2012 Stewardship Science Academic Alliances (SSAA) Symposium, NNSA/DOE, Washington DC, February 22-23, 2012.
4. G.C. Osborne, V. L. Kantsyrev, A. S. Safronova, A. A. Esaulov, M. E. Weller, I. Shrestha, V. V. Shlyaptseva, and N. D. Ouart, "*X-ray absorption spectroscopy of aluminum z-pinch plasma with tungsten backlighter planar wire array source*", 19th Topical Conference on High-Temperature Plasma Diagnostics, Monterey, CA, May 6-10, 2012.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

5. N.D. Ouart, J.L. Giuliani, A. Dasgupta, A.S. Safronova, V.L.Kantsyrev, A.A. Esaulov, I. Shrestha, M.E. Weller, V.V. Shlyaptseva, G.C. Osborne, A. Stafford, S.F. Keim, R.W. Clark, “*Simultaneous time-gated measurements of K- and L-shell radiation from brass wire array implosions on Zebra*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
6. R.Pandit, Y. Sentoku, “*Spectral and Angular Distribution of Photons via Radiative Damping in Super Intense Laser-Matter Interaction*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, Oct 29 - Nov 2, 2012.
7. D.Papp, V. V. Ivanov, P. Hakel, R. C. Mancini, S. D. Altemara, A. A. Anderson, “*Investigation of K-shell radiation from two-component wire arrays*”, 54th Annual Meeting of the Division of Plasma Physics, Providence, Rhode Island, October 29-November 2, 2012.
8. I.Paraschiv and Y. Sentoku, “*Radiation transport in PIC modeling of laser interaction with high-Z targets*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, Rhode Island, October 29 – November 2, 2012.
9. Y.Paudel, N. Renard-Le Galloudec, V.L.Kantsyrev, A.S. Safronova, A.Ya. Faenov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, Y. Sentoku, “*Hollowing and filamentation of proton beams in high-intensity laser plasma interactions*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
10. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, G.C. Osborne, I. Shrestha, V.V. Shlyaptseva, S.F. Keim, “*Analysis of Mg Spectra Produced on the Leopard Laser and Mid-Atomic Number Precursor Experiments on the Zebra Generator at UNR*”, 2012 Stewardship Science Academic Alliances (SSAA) Symposium, NNSA/DOE, Washington DC, February 22-23, 2012.
11. A.Stafford, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, M.E. Weller, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, S.F. Keim, C.A. Coverdale, A.S. Chuvatin, “*Analysis of Precursor Properties of mixed Al/Alumel Cylindrical Wire Arrays*”, 54th Annual Meeting of the APS Division of Plasma Physics, Providence, RI, October 29-November 2, 2012.
12. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, S. Keim, A. Stafford, “*Progress on Studying Radiation from Mixed Wire Arrays and New Data of Time-Gated Ag*”, 2012 Stewardship Science Academic Alliances (SSAA) Symposium, NNSA/DOE, Washington DC, February 22-23, 2012.
13. M.E. Weller, A. S. Safronova, J. Clementson, V. L. Kantsyrev, U. I. Safronova, P. Beiersdorfer, E. E. Petkov, P. G. Wilcox, and G. C. Osborne, “*Extreme ultraviolet spectroscopy and modeling of Cu on the SSPX Spheromak and laser plasma “Sparky”*”, 19th Topical Conference on High-Temperature Plasma Diagnostics, Monterey, CA, May 6-10, 2012.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

14. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, A. Stafford, I. Shrestha, G. C. Osborne, V.V. Shlyaptseva, S.F. Keim, H.A. Zunino, A.S. Chuvatin, J.P. Apruzese, I.E. Golovkin, J.J. MacFarlane, "*Analysis of Radiation from Siver HED Plasma Sources with the Potential for Lasing*", 39th IEEE International Conference on Plasma Science (ICOPS), Edinburgh, Scotland, UK, July 8-12, 2012.

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YEAR 2011

2011 Publications (14)

1. P. Antici, A. Mancic, M. Nakatsutsumi, P. Audebert, E. Brambrink, S. Gaillard, W. Nazarov and J. Fuchs, “*Tests of Proton Laser-acceleration Using Circular Laser Polarization, Foams and half Gas-bag Targets,*” *Plasma Physics and Controlled Fusion* **53**, 014002 (January 2011).
2. T.J. Awe, B. Bauer, S. Fuelling and R. E. Siemon, “*The Evolving Structure of Plasma Formed From the Surface of Aluminum Rods Driven to Megaampere Current,*” *IEEE Trans. Plasma Sci.* **39**, 2418-2419 (November 2011).
3. S.A. Gaillard, T. Kluge, K. A. Flippo, M. Bussmann, B. Gall, T. Lockard, M. Geissel, D. T. Offermann, M. Schollmeier, Y. Sentoku and T. E. Cowan, “*Increased laser-accelerated proton energies via direct laser-light-pressure acceleration of electrons in microcone targets,*” *Phys. Plasmas* **18**, 056710 (May 2011).
4. M.F. Gharaibeh, A. Aguilar, A. M. Covington, E. D. Emmons, S. W. Scully, R. A. Phaneuf, A. Muller, J. D. Bozek, A. L. D. Kilcoyne, A. S. Schlachter, I. A. Alvarez, C. Cisneros and G. Hinojosa, “*Photoionization measurements for the iron isonuclear sequence Fe³⁺, Fe⁵⁺, and Fe⁷⁺,*” *Phys. Rev. A, Atomic, Molecular, and Optical Physics* **83**, 043412 (April 2011).
5. V.V. Ivanov, P. Hakel, R. C. Mancini, J. P. Chittenden, A. Anderson, T. Durmaz, P. Wiewior, D. Papp, S. D. Altemara, A. L. Astanovitskiy and O. Chalyy, “*Measurement of the Ionization State and Electron Temperature of Plasma during the Ablation Stage of a Wire-Array Z Pinch Using Absorption Spectroscopy,*” *Phys. Rev. Lett.* **106**, 225005 (June 2011).
6. V.V. Ivanov, P. Hakel, R. C. Mancini, J. P. Chittenden, A. Anderson, A. P. Shevelko, P. Wiewior, T. Durmaz, S. D. Altemara, D. Papp, A. L. Astanovitskiy, V. Nalajala, O. Chalyy and O. Dmitriev, “*X-ray absorption spectroscopy for wire-array Z-pinches at the non-radiative stage,*” *High Energy Density Physics* **7**, 383-390 (August 2011).
7. V.V. Ivanov, J. P. Chittenden, S. D. Altemara, N. Niasse, P. Hakel, R. C. Mancini, D. Papp and A. A. Anderson, “*Study of the Internal Structure and Small-Scale Instabilities in the Dense Z Pinch,*” *Phys. Rev. Lett.* **107**, 165002 (October 2011).
8. V.L. Kantsyrev, A. A. Esaulov, A. S. Safronova, A. L. Velikovich, L. I. Rudakov, G. C. Osborne, I. Shrestha, M. E. Weller, K. M. Williamson, A. Stafford and V. V. Shlyaptseva, “*Influence of induced axial magnetic field on plasma dynamics and radiative characteristics of Z pinches,*” *Phys. Rev. E, Statistical, Nonlinear, and Soft Matter Physics* **84**, 046408 (October 2011).

NTF Publications, Papers, Talks, Posters : 2011 - 2013

9. N.R. Le Galloudec, J. Cobble, S. L. Nelson, A. Merwin, Y. Paudel, I. Shrestha, G. C. Osborne, K. M. Williamson and V. L. Kantsyrev, "*Advantages of a soft protective layer for good signal-to-noise ratio proton radiographs in high debris environments,*" High Energy Density Physics **7**, 247-251 (December 2011).
10. A.S. Safronova, A. A. Esaulov, V. L. Kantsyrev, N. D. Quart, V. Shlyaptseva, M. E. Weller, S.F. Keim, K. M. Williamson, I. Shrestha and G. C. Osborne, "*Searching for efficient X-ray radiators for wire array Z-pinch plasmas using mid-atomic-number single planar wire arrays on Zebra at UNR,*" High Energy Density Physics **7**, 252-258 (May 2011).
11. G.S. Sarkisov, P. Leblanc, V. V. Ivanov, Y. Sentoku, V. Yu. Bychenkov, K. Yates, P. Wiewior, D. Jobe and R. Spielman, "*Fountain effect of laser-driven relativistic electrons inside a solid dielectric,*" Applied Physics Letters **99**, 131501 (September 2011).
12. Y. Sentoku, E. d'Humie`res, L. Romagnani, P. Audebert and J. Fuchs, "*Dynamic Control over Mega-Ampere Electron Currents in Metals Using Ionization-Driven Resistive Magnetic Fields,*" Phys. Rev. Lett. **107**, 135005 (September 2011).
13. K.M. Williamson, V. L. Kantsyrev, A. S. Safronova, P. G. Wilcox, W. Cline, S. Batie, B. Le Galloudec, V. Nalajala and A. Astanovitsky, "*Grazing incidence extreme ultraviolet spectrometer fielded with time resolution in a hostile Z-pinch environment,*" Rev. Sci. Instrum. **82**, 093506 (Sept. 2011).
14. M.F. Yilmaz, A. S. Safronova, V. L. Kantsyrev, A. A. Esaulov, K. M. Williamson, R. K. Shrestha, M. E. Weller, G. C. Osborne and V. V. Shlyaptseva, "*Modeling of K-shell Al and Mg radiation from compact single, double planar and cylindrical alloyed Al wire array plasmas produced on the 1 MA Zebra generator at UNR,*" High Energy Density Physics **8**, 30-37 (October 2011).

2011 Conference Proceedings (3)

1. V.V. Ivanov, P. Hakel, R. C. Mancini, J. P. Chittenden, A. P. Shevelko, P. Wiewior, S. D. Altemara, A. Anderson, D. Papp, T. Durmaz, N. Niasse, A. L. Astanovitskiy, O. Chalyy, E. McKee, "*Study of Wire-Array Z Pinches with UV Laser Diagnostics and Absorption Spectroscopy*", Proceedings of the 8th international conference on Dense Z-pinches, Biarritz, France, June 5-9, 2011, submitted
2. D.Papp, V. V. Ivanov, B. Jones, A. Haboub, A. A. Anderson, S. D. Altemara, J. P. Chittenden, "*The Study of Ablation and Implosion Dynamics in Closely Coupled Nested Cylindrical and Star Wire Array Z-Pinches*", Proceedings of the 8th international conference on Dense Z-pinches, Biarritz, France, June 5-9, 2011, submitted
3. R.K. Bista, R. F. Bruch and A. M. Covington, "*Vibrational spectroscopic methods to characterize the bionanoparticles originating from newly developed self-forming synthetic PEGylated lipids (QuSomes),*" Proceedings of the SPIE - The International Society for Optical Engineering 2011, 7908, 20110124 (2011).

NTF Publications, Papers, Talks, Posters : 2011 - 2013

2011 Invited Papers (1)

1. A.Covington, *et. al*, “*HEDP Physics at the Nevada Terawatt Facility*”, Center of Excellence Highlights, Stewardship Science Academic Alliance Annual Report, U.S. DOE National Nuclear Security Administration, Washington, DC, Feb 2011. Invited article.

2011 Invited Talks (9)

1. A.Chuvatin, V. Kantsyrev, A. Astanovitsky, R. Presura, A. Safronova, B. Le Galloudec, V. Nalajala, K. Williamson, I. Shrestha, G. Osborne, M. Weller, V. Shlyaptseva, M. Cuneo and L. Rudakov, “*Advanced Load Current Multiplier on Zebra Generator*” , 18th IEEE International Pulsed Power Conference, Chicago, IL, June 19 - 23, 2011. Invited talk.
2. V.V. Ivanov “*Study of Wire-Array Z-Pinches with UV Laser Diagnostics and Absorption Spectroscopy*”, 8th international conference on Dense Z-pinches, Biarritz, France, June 5-9, 2011. Invited talk.
3. V.L. Kantsyrev, A.A. Esaulov, K.M. Williamson, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, A.S. Safronova, M.F. Yilmaz, N.D. Ouart, M.E. Weller, P.G. Cox, L.I. Rudakov, A.L. Velikovich, A.S. Chuvatin, “*Innovative approach for enhancing shaped x-ray production in Z-pinches (Experimental Studies of Implosion Characteristics and Radiation Properties of Planar and Cylindrical Wire Arrays and X-pinches)*”, NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington, DC, Feb 2011. Invited talk.
4. V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, L.I. Rudakov, A.S. Chuvatin, A.L. Velikovich, I. Shrestha, K.M. Williamson, G.C. Osborne, V.V. Shlyaptseva, N.D. Ouart, M.E. Weller, P. Wilcox, A. Stafford, S.F. Keim, “*Radiative Properties of Wire Array Plasmas and Applications*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, Mar 2011. Invited talk.
5. N.D. Ouart, J.L. Giuliani, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, N.R. Pereira, I. Shrestha, K.M. Williamson, G.C. Osborne, M.E. Weller, V. Shlyaptseva, “*Cold K-shell Emission from the Implosion of Brass Wire Loads Performed at the 1-MA Zebra Generator at UNR*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, Mar, 2011. Invited talk.
6. A.S. Safronova, A.A. Esaulov, U.I. Safronova, W.R. Johnson, A.Ya. Faenov, N.D. Ouart, M.E. Weller, A. Stafford, P.G. Cox, S. F. Keim, G.C. Osborne, V.L. Kantsyrev, I. Shrestha, K.M. Williamson, G.C. Osborne, V. Shlyaptseva, P. Wiewior, N. Renard-LeGalloudec, Y. Paudel, “*Theoretical X-ray/EUV Spectroscopy and Imaging Studies of Wire Array and X-pinch Plasmas*”, NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington, DC, Feb 2011. Invited talk.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

7. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, N.D. Ouart , M.F. Yilmaz, M.E. Weller, I. Shrestha , K.W. Williamson, P.G. Wilcox, A. Stafford, V. Shlyaptseva, G.C. Osborne, S.F. Keim, H. Zunino, A.S. Chuvatin, ” *Studying Radiation from HED Wire Array and X-pinch Plasmas*”, DOE/NNSA, Washington, DC, Nov 2011. Invited talk.
8. A.S. Safronova, V.L. Kantsyrev, A.Y. Faenov, U.I. Safronova, P. Wiewior, N. Renard-Le Galloudec, A.A. Esaulov, M.E. Weller, A. Stafford, P. Wilcox, I. Shrestha, N.D. Ouart, V. Shlyaptseva, G.C. Osborne, O. Chalyy, Y. Paudel, “*Atomic Physics of Relativistic High-Contrast Laser-produced Plasmas in Experiments on Leopard Laser Facility at UNR*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP), Reno, NV, Mar 2011. Invited talk.
9. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, C.A. Coverdale, N.D. Ouart, K.M. Williamson, I. Shrestha, G.C. Osborne, V. Shlyaptseva, S. Keim, A. Stafford, ”*Radiative Properties of Mixed Nested Cylindrical Wire Arrays on Zebra at UNR*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, Mar 2011. Invited talk.

2011 Contributed Talks (11)

1. V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, A.S. Chuvatin, L.I. Rudakov, A.L. Velikovich, K.M. Williamson, I. Shrestha, G.C. Osborne, M.E. Weller, V.V. Shlyaptseva, N.D. Ouart, A. Stafford, S. Keim, “*Yield enhancement and x-ray pulse shaping of radiation from anisotropic wire array plasma sources*”, 8th International Conference on Dense Z-pinches, Biarritz, France, Jun 2011.
2. V.L. Kantsyrev, A. A. Esaulov, A. S. Safronova, L. I. Rudakov, A. S. Chuvatin, A. L. Velikovich, K. M. Williamson, G. C. Osborne, I. Shrestha, M. E. Weller, V. V. Shlyaptseva, A. Stafford, “*Anisotropy and Pulse Shaping of Radiation Emitted from Multi-Planar Wire Arrays*”, 38th International Conference on Plasma Science, Chicago, IL, Jun 2011.
3. V.L. Kantsyrev, A.S. Chuvatin, L.I. Rudakov, A.S. Safronova, A.A. Esaulov, G.C. Osborne, I. Shrestha, V. V. Shlyaptseva, H. A. Zunino, M.E. Weller, A. Stafford, S. Keim, “*Experimental Comparison of Radiative Characteristics and Implosion Dynamics of Planar Foils and Single Planar Wire Arrays in Current Region 0.9-1.6 MA on the UNR Zebra generator*”, 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake City, UT, Nov 2011.
4. G. Osborne, V. Kantsyrev, A. Esaulov, A. Safronova, M. Weller, I. Shrestha, K. Williamson, V. Shlyaptseva, “*X-Ray Pulse Shaping from Tungsten-Based Multi-Planar Wire Arrays*”, 38th International Conference on Plasma Science, Chicago, IL, Jun 2011.
5. N.D. Ouart, J. L. Giuliani, A. S. Safronova, V. L. Kantsyrev, A. A. Esaulov, N. R. Pereira, I. Shrestha, K. M. Williamson, G. C. Osborne, M. E. Weller, V. Shlyaptseva, “*Cold K-Shell Emission from the Implosion of Brass Planar Wire Arrays and X-Pinches Performed at the 1-MA Zebra Generator at UNR*”, 38th International Conference on Plasma Science, Chicago, IL, Jun 2011.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

6. A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, I. Shrestha, V.V. Shlyaptseva, M.E. Weller, , N.D. Ouart, G.C. Osborne, K.M. Williamson, S. Keim, A.L. Velikovich, J.L. Giuliani, “*Producing keV plasmas on Zebra at UNR: achievements, challenges and applications*”, 8th International Conference on Dense Z-pinches, Biarritz, France, Jun 2011.
7. A.S. Safronova, V. L. Kantsyrev, A. A. Esaulov, M. E. Weller, V. V. Shlyaptseva, A. Stafford, S. F. Keim, I. Shrestha, G. C. Osborne, K. M. Williamson, C. A. Coverdale, L. I. Rudakov, “*Time Evolution of Z-Pinch Dynamics and Radiative Characteristics of Wire Arrays on Zebra at UNR*”, 38th International Conference on Plasma Science, Chicago, IL, Jun 2011.
8. A.S. Safronova, V.L. Kantsyrev, I. Shrestha, V. V. Shlyaptseva, M.E. Weller, G.C. Osborne, K.M. Williamson, A. Stafford, S. F. Keim, A.Ya. Faenov, A.A. Esaulov, P. Wiewior, N. Le Galloudec, Y. Paudel, , C.A. Coverdale, A.S. Chuvatin, ” *Analysis of Radiation from Implosions of Stainless Steel Wire Arrays on Zebra and Comparison with Results of High-Intensity Laser Flat Fe Target Experiments on Leopard at UNR*”, 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake City, UT, Nov 2011.
9. I.K. Shrestha, V. L. Kantsyrev, A. S. Safronova, A. A. Esaulov, A. Astanovitskiy, K. M. Williamson, G. C. Osborne, M. E. Weller, V. V. Shlyaptseva, N. D. Ouart, “*The Impact of Load Configuration and Wire Material on Radiation Yield from Wire Array Plasmas at University Scale Z-Pinch Pulsed Power Generators*”, 18th IEEE International Pulsed Power Conference, Chicago, IL, Jun 2011.
10. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, N.D. Ouart, K.M. Williamson, I. Shrestha, G. C. Osborne, V.V. Shlyaptseva, “*Analysis of Implosion Dynamics and Radiation of Mixed Mo and Al Triple Planar Wire Arrays With Different Inter-row Gap*”, 8th International Conference on Dense Z-pinches, Biarritz, France, Jun 2011.
11. M.E. Weller, A. S. Safronova, V. L. Kantsyrev, A. A. Esaulov, A. Stafford, K. M. Williamson, I. Shrestha, G. C. Osborne, V. Shlyaptseva, S. Keim, S. B. Hansen, “*Analysis of Radiation from Uniform and Combined Ag Planar Wire Arrays* “, 38th International Conference on Plasma Science, Chicago, IL, Jun 2011.

2011 Poster Presentations (20)

1. A.A. Anderson, V. V. Ivanov, P. Hakel, R. C. Mancini, J. P. Chittenden, A. P. Shevelko, P. Wiewior, S. D. Altamura, D. Papp, T. Durmaz, N. Niasse, “*Study of Wire-Array Z-Pinches with Absorption Spectroscopy and UV Diagnostics*”, Stewardship Science Academic Alliances, Washington DC, Feb 2011.
2. J.Iratcabal, B. Bach, T. Darling, Z. McCormick, E. McKee, P. Neill, J. Thompson, P. Wiewior and A. Covington, “*Development of a Multi-Parameter Event-Mode Apparatus for the Study of Laser Produced Plasmas*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP), Reno, NV, Mar 2011.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

3. S.F. Keim, M.E. Weller, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, I. Shrestha, G.C. Osborne, V.V. Shlyaptseva, “*Analysis of Ablation Dynamics and Radiative Properties of Ag Single Wire Z-pinches on Zebra at UNR*”, 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake City, UT, Nov 2011.
4. G.C. Osborne, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, U.I. Safronova, I. Shrestha, V.V. Shlyaptseva, K.M. Williamson, M.E. Weller, “*Radiative Properties and Implosion Characteristics of Planar Tungsten Wire Arrays on the Zebra Generator*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, Mar 2011.
5. G.C. Osborne, V.L. Kantsyrev, A.A. Esaulov, A.S. Safronova, M.E. Weller, K.M. Williamson, I. Shrestha, V.V. Shlyaptseva, “*Implosion Characteristics of Tungsten and Gold Single Planar Wire Arrays on UNR Zebra Generator*”, 8th International Conference on Dense Z-pinches, Biarritz, France, Jun 2011.
6. R.Pandit, Y. Sentoku, “*Effects of radiation damping in extreme ultra-intense laser-plasma interaction*”, 53rd Annual Meeting of the American Physical Society Division of Plasma Physics, Saltlake City, UT, Nov 2011.
7. Y.Paudel, A.S. Safronova, V.L. Kantsyrev, A.Y. Faenov, M.E. Weller, I. Shrestha, V. Shlyaptseva, G.C. Osborne, J. Croteau, A. Merwin, S. Feldman, K. Serratto, A. Bernstein, T. Ditmire, J. Frenje, R. Petrasso, N. Renard-Le Galloudec, “*Protons/Ions Beam Characteristics from Short Pulse Laser Interactions with Thin Foil Targets and Their Correlation with Coherent Transition of Radiation*”, International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, Mar 2011.
8. A.S. Safronova, A. Stafford, M.E. Weller, P.G. Cox, S.F. Keim, A.A. Esaulov, U.I. Safronova, S. F. Keim, V.L. Kantsyrev, I. Shrestha, K.M. Williamson, G.C. Osborne, V. Shlyaptseva, P. Wiewior, N. Renard-LeGalloudec, Y. Paudel, N.D. Quart, A.Ya. Faenov, W.R. Johnson, “*Progress on Theoretical X-ray/EUV Spectroscopy and Imaging Studies of Wire Array and Laser-produced Plasmas and Applications to Astrophysics*”, NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington D.C., Feb 2011.
9. Y.Sentoku, R. Pandit, “*Effects of radiation damping in ultra-intense laser matter interaction at extreme intensity regime*”, 53rd Annual Meeting of the American Physical Society Division of Plasma Physics, Saltlake City, UT, Nov 2011.
10. V.V. Shlyaptseva, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, I. Shrestha, K.M. Williamson, G.C. Osborne, M.E. Weller, A. Stafford, S. Keim, “*Studying wire array and X-pinch plasmas from Alumel wire loads*”, 8th International Conference on Dense Z-pinches, Biarritz, France, Jun 2011.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

11. I.Shrestha, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, K.M. Williamson, G.C. Osborne, V.V. Shlyaptseva, "*Progress on study of hard x-ray and electron beam generation in Z- and X-pinch plasmas at University-scale generators*", NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington D.C., February 15-17, 2011.
12. I.Shrestha, V.L. Kantsyrev, A.S. Safronova, A.A. Esaulov, K.M. Williamson, G.C. Osborne, M.E. Weller, V.V. Shlyaptseva, A. Stafford, "*Study of Electron Beams in Z-pinch Plasmas Through Polarization of Lines and Continuum Radiation*", International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, March 15-18, 2011.
13. V.I. Sotnikov, B. Himed, I. Paraschiv, E.S. Yasin, C. Ng, B. Oliver, T.A. Mehlhorn, "*Scattering of high-frequency electromagnetic waves in the presence of interchange instability in a finite-beta plasma*", American Geophysical Union, Fall Meeting 2011.
14. A.Stafford, A.S. Safronova, U.I. Safronova, V.L. Kantsyrev, A.Y. Faenov, P. Wiewior, N. Renard-Le Galloudec, I. Shrestha, M.E. Weller, G.C. Osborne, V. Shlyaptseva, Y. Paudel, "*Analysis of New Mg Spectral Features Produced on the Leopard Laser at UNR*", International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, March 15-18, 2011.
15. A.Stafford, A. S. Safronova, V. L. Kantsyrev, A. A. Esaulov, M. E. Weller, K. M. Williamson, G. C. Osborne, I. Shrestha, V. Shlyaptseva, C. A. Coverdale, N. D. Ouart, S. C. Bott, "*Analysis of New Mid-Atomic Number Precursor Wire Array Experiments on the 1-MA Pulsed Power Generator at UNR*", 38th International Conference on Plasma Science, Chicago, IL, June 26-30, 2011.
16. M.E. Weller, A.S. Safronova, V.L. Kantsyrev, A.A. Esaulov, A. Stafford, I. Shrestha, K.M. Williamson, G.C. Osborne, V. Shlyaptseva, S. Keim, P. Wiewior, N. Renard-Le Galloudec, Y. Paudel, N.D. Ouart, A.Ya. Faenov, "*Radiation from implosions of mid-atomic-number wire arrays and first comparison with Leopard laser produced data at UNR*", NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington D.C., February 15-17, 2011.
17. P.Wilcox, A. Stafford, U.I. Safronova, A.S. Safronova, V.L. Kantsyrev, A.Y. Faenov, P. Wiewior, N. Renard-Le Galloudec, I. Shrestha, M.E. Weller, G.C. Osborne, V. Shlyaptseva, Y. Paudel, "*Analysis of New Fluorine Spectral Features Including from Hollow Ions Produced on the Leopard Laser at UNR*", International Workshop on Radiation from High Energy Density Plasmas (RHEDP), Reno, NV, March 15-18, 2011.
18. K.M. Williamson, V.L. Kantsyrev, A.A. Esaulov, A.S. Safronova, I. Shrestha, G.C. Osborne, M.E. Weller, P.G. Cox, V.V. Shlyaptseva, "*Impact of load geometry and ablation on implosion dynamics in planar and nested wire arrays*", NNSA / 2011 Stewardship Science Academic Alliances Symposium, Washington D.C., February 15-17, 2011.
19. K.M. Williamson, V. L. Kantsyrev, A. A. Esaulov, A. S. Safronova, I. Shrestha, G. C. Osborne, M. E. Weller, V. Shlyaptseva, "*Impact Of Load Geometry And Ablation On Radiation Dynamics in Planar And Nested Wire Arrays*", International Workshop on Radiation from High Energy Density Plasmas (RHEDP) , Reno, NV, March 15-18, 2011.

NTF Publications, Papers, Talks, Posters : 2011 - 2013

20. H.A. Zunino, M.E. Weller, A. Stafford, A.S. Safronova, V.L. Kantsyrev, A.S. Chuvatin, I. Shrestha, G.C. Osborne, I. Shrestha, V. V. Shlyaptseva, S. Keim, "*Spectroscopic Analysis of First Experiments of Al Planar Foils and Single Planar Wire Arrays on Zebra at UNR*", 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake City, UT, November 14-16, 2011.