

**Poster Submissions for Stewardship Science Academic Alliance (SSAA) Symposium  
Feb. 26-28, 2010**

Board #	Division	Presenter		Organization	Poster Title
3	HEDP	Afeyan	Bedros	Polymath Research Inc.	Advances in Optical Mixing Techniques for the Effective Control of Parametric Instabilities in Laser-Produced Plasmas
18	HEDP	Andrews	Malcolm	Texas A&M University/Los Alamos National Laboratory	"Detailed Measurements of Turbulent Rayleigh-Taylor Mixing at Large and Small Atwood Numbers"
5	HEDP	Bonazza	Riccardo	University of Wisconsin	"Investigation of shock-induced distortion of a spherical gas inhomogeneity"
28	HEDP	Casey	Daniel	Massachusetts Institute of Technology	"A Magnetic Recoil Spectrometer (MRS) for $\rho_R$ , Ti and Yn measurements of cryogenic DT implosions at OMEGA and the NIF"
6	HEDP	Charbonneau - Lefort	Mathieu	Polymath Research Inc.	"Ponderomotively-Driven KEEN Waves in the Picosecond Regime: Results from a Recent Campaign in the TRIDENT Laser System"
99	HEDP	Doss	Forrest	University of Michigan	"Instabilities and Structure Evolution in Radiative Shocks"
14	HEDP	Fahlen	Jay	University of California, Los Angeles	"Driven Plasma Waves Relevant to Stimulated Raman Scattering"
4	HEDP	Fernandez	Juan	Los Alamos National Laboratory	"The Enhanced Trident Laser Facility at Los Alamos National Laboratory: an intermediate scale user facility serving the High Energy Density Physics research community"
15	HEDP	Glimm	James	Stony Brook University	"Turbulent Mixing Simulations: Experimental Validation, Code Comparison and Atomic Level Mixing Properties"

31	HEDP	Goncharov	Alexander	Geophysical Laboratory, Carnegie Institution of Washington	"Melting of simple molecular solids in Mbar pressure range"
32	HEDP	Hall	Iain	University of Nevada, Reno	"Hydrodynamic and atomic-kinetic modeling of photoionised neon plasmas"
25	HEDP	Harding	Eric	University of Michigan	"Progress toward Kelvin-Helmholtz instabilities in high-energy-density plasmas on the Nike laser"
29	HEDP	Hicks	Damien	Lawrence Livermore National Laboratory	"Emerging paradigms in multi-Megabar physics: Explorations using laser-driven compression"
26	HEDP	Kuranz	Carolyn	University of Michigan	"Laboratory blast-wave driven instabilities"
20	HEDP	Li	Chikang	Massachusetts Institute of Technology	"Monoenergetic Proton Radiography Measurements of Implosion Dynamics in Direct-Drive Inertial Confinement Fusion"
30	HEDP	Lozano	Aaron	University of Illinois at Urbana-Champaign	"Using Nonlinear Coherent Vibrational Spectroscopy to Probe the Surface of High Explosives"
27	HEDP	Ma	Tammy Ma	University of California, San Diego	"Determination of Electron-Heated Target Temperatures in Petawatt Laser Experiments Using Soft X-Ray Diagnostics"
19	HEDP	Manuel	Mario	Massachusetts Institute of Technology	"Characterization of Proton Radiography as a Diagnostic for HEDP Experiments"
24	HEDP	McBride	Ryan	Cornell University	"High-energy-density pinch columns and radiation production on the reconfigured Cornell Beam Research Accelerator (COBRA)"
23	HEDP	Mori	Warren	University of California, Los Angeles	"Particle-in-cell simulations of laser and beam plasma interactions"

21	HEDP	Nagayama	Taisuke	University of Nevada, Reno	"Multi-view observation and analysis of OMEGA direct-drive implosion cores"
17	HEDP	Ouart	Nicholas	University of Nevada, Reno	"Measurements of plasma conditions in precursor plasmas at the 1-MA Zebra facility"
16	HEDP	Purvis	Michael	Colorado State University	"Soft x-ray interferometry of laboratory plasma jets with 2D simulations"
12	HEDP	Shrestha	Ishor	University of Nevada, Reno	"The comparative study of energetic electron beam characteristics in different planar wire arrays, compact cylindrical and nested wire arrays at 1MA generators"
100	HEDP	Spaulding	Dylan	University of California at Berkeley	"Using Lasers as Probes of Planetary Interiors"
11	HEDP	Tsung	Frank	University of California, Las Angeles	"Melting of simple molecular solids in Mbar pressure range"
9	HEDP	Visco	Tony	University of Michigan	"Measurements of radiative shock properties using optical and scattering diagnostics"
10	HEDP	Williamson	Kenneth	University of Nevada, Reno	"Implosion Dynamics and Radiation Output of Combined Nested and Compact Cylindrical Wire Arrays on 1MA Pulse Generators with 100ns and 220ns Rise Times"
13	HEDP	Winjum	Benjamin	University of California, Las Angeles	Simulations of Stimulated Raman Scattering for NIF Parameters
7	HEDP	Wurtele	Jonathan	University of California at Berkeley and Lawrence Berkeley National Laboratory	"Warm Dense Matter Studies Using Heavy Ion Beams"
8	HEDP	Yampolsky	Nikolai	Princeton Plasma Physics Laboratory	"Implementation of a Stimulated Raman Amplifier/Compressor in Plasma"

22	HEDP	Yilmaz	Fatih	University of Nevada, Reno	"Comparison of Modeling of K-shell Al and Mg from the Implosions of Planar and Cylindrical Wire Arrays produced on the 1MA Zebra Generator at UNR."
33	LENS	Chipps	Kelly	Colorado School of Mines	"States of Astrophysical Interest in the $^{17}\text{O}(p,\gamma)$ and $^{17}\text{F}(p,\gamma)$ Reactions"
34	LENS	Couture	Aaron	Los Alamos National Laboratory	"Understanding the Origins of the Heavy Elements with Neutron Capture at DANCE"
35	LENS	Damba	Darwin	Lawrence Berkeley National Laboratory	"Neutron Generator Applications in Radiation Effects, Diagnostic Studies, and Cross Section Measurements"
36	LENS	Hatarik	Robert	Rutgers University	"Results from a benchmark experiment: comparing $^{171,173}\text{Yb}(d,p\gamma)$ surrogate ratio and $^{171,173}\text{Yb}(n,g)$ cross-section"
37	LENS	Heinen	Zach	Ohio University	"The Excitation Function of $^9\text{Be}(\alpha,n)$ below $E_\alpha=11$ MeV"
52	LENS	Hutcherson	Tony	Duke University/Triangle Universities Nuclear Laboratory	"Neutron-Induced Partial Gamma-Ray Cross-Section Measurements on Uranium at TUNL"
38	LENS	Jewett	Cybele C.	University of California/Lawrence Berkeley National Laboratory	"A Gas Electron Multiplier (GEM) Detector for Fast Neutron Imaging"
39	LENS	Jost	Cara	Oak Ridge Associated Universities	"Radioactive Ion Beam Purification By Selective Adsorption"
54	LENS	Kelley	John	Duke University	"Data Acquisition Systems for Neutron-Induced Cross-Section Measurements at TUNL"

53	LENS	Kwan	Elaine	Triangle Universities Nuclear Laboratory & Duke University	"Neutron-Induced Partial Cross-Section Measurements on Cu, Ge and Pb for Background Radiation"
40	LENS	Liddick	Sean	University of Tennessee	"Beta delayed neutron branching ratio measurements using fission fragments"
41	LENS	Massey	Thomas Neal	Ohio University	"Studies of the Structure of Light Nuclei"
42	LENS	Matei	Catalin	Oak Ridge National Laboratory	"Development of a Versatile Array for Neutron Detection"
43	LENS	McCleskey	Matthew	Texas A&M University Cyclotron Institute	"Determining the ANC for neutron-rich $^{15}\text{C}$ from neutron transfer reaction with heavy ions"
45	LENS	O'Malley	Patrick	Rutgers	Spectroscopic Factors for $^{16}\text{N}$
46	LENS	Padgett	Stephen	University of Tennessee	"Development of new low threshold detection system for decay studies at the new LeRIBSS facility"
47	LENS	Pain	Steven	Oak Ridge National Laboratory/University of Tennessee	"Measuring (d,p) Reactions on Neutron-rich Fission Fragments"
48	LENS	Peters	Bill	Rutgers University	Neutron Spectroscopy using the Modular Neutron Array (MoNA)
49	LENS	Shukla	Shaleen	Ohio University	"A Study of Level Density for Nuclei off the Stability Line"
50	LENS	Thompson	Jason	Rensselaer Polytechnic Institute	"Progress of Energy Dependent (n, $\alpha$ ) Cross Section Measurements in a Lead Slowing Down Spectrometer"
44	LENS	Voinov	Alexander	Ohio University	"Level Densities from Neutron and Charged Particle Spectra"
72	Materials	Yang	Wenge	Carnegie Institution of Washington	"HOCAT science highlight-II"
57	Materials	Aihaiti	Muhetaer	Carnegie Institution of Washington	"Spectroscopic studies of ferroelectrics and polymers"
58	Materials	Amin	Samrat	Arizona State University	"High Pressure Behavior of $\text{As}_2\text{O}_3$ Glass"

93	Materials	Berzak	Laura	Princeton Plasma Physics Laboratory	"An Overview of Lithium in Fusion Energy Research"
111	Materials	Bray	Travis Bray	Auburn University	Production and Characterization of Actinide Targets for Radioactive Ion Beams
60	Materials	Brown	Katie	University of Illinois	"High Pressure Vibrational Spectroscopy of Molecules at Interfaces"
75	Materials	Chellappa	Raja	Carnegie Institution of Washington	"Reactivity of Water-Oxygen System at High Pressure"
79	Materials	Funk	David	Los Alamos National Laboratory	"MaRIE: Matter-Radiation Interactions in Extremes, a Signature Facility Providing Experimental Resources for Transformational Materials Discovery "
68	Materials	Ganesh	Panchapakesan	Carnegie Institution of Washington	"Exotic Perovskites under Pressure"
78	Materials	Garimella	Subrahmanyam	CeSMEC, Florida International University	"High energy dense materials <i>via</i> high pressure decomposition of metal hexacarbonyls?"
108	Materials	George	Lyci	Florida International University	"Principal Component Analysis on Hydride Database"
86	Materials	Guo	Lingyun	Texas Tech University	"High pressure X-ray diffraction study of nanocrystalline AuCu alloy"
98	Materials	Hooks	Daniel E.	Los Alamos National Laboratory	"Deformation mechanisms in shock-loaded explosive single crystals"
85	Materials	Hou	Dongbin	Texas Tech University	"High Pressure Xray Diffraction study of nanocrystalline zinc oxide"
83	Materials	Hrubiak (Rostelov)	Ross	Florida International University, CeSMEC	"High temperature thermo-physical property measurement using laser spot heating and inverse heat conduction analysis"

87	Materials	Jacobsen	Matthew	University of Nevada, Las Vegas	"High pressure transport studies onBi <sub>2</sub> -xSbxTe <sub>3</sub> "
84	Materials	Kulkarni	Shrinivas	CeSMEC (Florida International University)	" Synthesis and high pressure behavior of M <sub>2</sub> SnC (M = Ti, Zr) MAX Phases"
69	Materials	Lee	Kanani	New Mexico State University	"First measurements on how pressure affects the half-life of <sup>22</sup> Na: Comparison to theory and analog to 40K"
74	Materials	Lerche	Michael	Carnegie Institution of Washington	"Grand challenges at HPSynC"
61	Materials	Liu	Haozhe	Harbin Institute of Technology	"Metallic Glasses under High Pressure"
89	Materials	Liu	Qiong	Stony Brook University	"Elastic properties of transition metals at high pressures and temperatures"
62	Materials	Lucas	Matt	California Institute of Technology	"High Pressure Study of Fe-Cr Alloys"
95	Materials	Luo	Rose Xuan	Carnegie Institution of Washington, Geophysical Lab	"First-Principles Investigation of Equation of State and Phonon-Dispersion of Fe <sub>x</sub> Ni <sub>(1-x)</sub> Alloy at High Pressure and Temperature"
90	Materials	Masiel	Dan	University of California, Davis	"Particle Swarm Optimization of Iterative Phase Retrieval Algorithms for Coherent Diffractive Imaging in the DTEM"
91	Materials	Miller	Bryan	University of Illinois	"The Role of Twinning in Deformation"
80	Materials	Miyagi	Lowell	University California at Berkeley	"Deformation and texture development in CaIrO <sub>3</sub> post-perovskite phase up to 6 GPa and 1300 K"
91	Materials	Miyagi	Lowell	University California at Berkeley	In-situ Phase Transformation and Deformation of Iron at High Pressure and Temperature
94	Materials	Morales	Miguel A.	University of Illinois at Urbana-Champaign	"Computational Study of the Equation of State of Hydrogen using the Coupled Electron-Ion Monte Carlo Method"

92	Materials	Nellis	William	Harvard University	"Ultracondensed Matter by Dynamic Compression: Physics, Planetary Interiors, Interfacial Instabilities, and Material Science"
59	Materials	Oelker	Erin	Arizona State University	"High Pressure Structural Investigation of Glassy and Crystalline BeF <sub>2</sub> ".
96	Materials	Oginni	Babatunde	Ohio University	"Level Densities of nuclei off of the Nuclear Stability Line"
97	Materials	Peralta	Pedro	Arizona State University	"Dynamic and post-mortem characterization of spalled FCC metallic samples"
77	Materials	Phatak	Nishad	Florida International University	"Synthesis and structural stability of a new compound (Cr <sub>0.5</sub> V <sub>0.5</sub> ) <sub>2</sub> GeC and M <sub>2</sub> GeC ( M = Ti, V, Cr ) at high pressure and temperature"
76	Materials	Pitcher	Shannon	New Mexico State University	"Weather Patterns at LANL and their effects on measurements of electron-capture radioactive decay under pressure"
101	Materials	Pravica	Michael	University of Nevada, Las Vegas	"Studies of TATB under high static compression"
109	Materials	Rusev	Gencho	Duke University	"Neutron-induced cross-section measurements on GaAs at TUNL"
103	Materials	Samudrala	Gopi	University of Alabama at Birmingham	"Growth chemistry for the fabrication of Designer Diamonds for High Pressure Research"
64	Materials	Seagle	Chris	University of Chicago	"Experimental determination of melting curves at high pressure"
65	Materials	Selvi	Emre	Texas Tech University	"Interaction of Tungsten Disulfide with Different Pressure Media"
66	Materials	Sharma	Anurag	Carnegie Institution of Washington	"Hydrocarbon synthesis at extreme conditions: a window into the reaction pathways"
70	Materials	Shen	Guoyin	Carnegie Institution of Washington	"HPCAT facilities for high pressure research"

71	Materials	Shen	Guoyin	Carnegie Institution of Washington	"HPCAT science highlight-I"
72	Materials	Shen	Guoyin	Carnegie Institution of Washington	"High pressure synergetic center at Advanced Photon Source"
107	Materials	Stemshorn	Andrew	University of Alabama in Birmingham	"Electrical and Structural Studies of Metallic Glass Under High Pressure."
106	Materials	Tanis	Elizabeth	University of Nevada, Las Vegas	"Phonon Densities of States of metallic Sn under high pressure"
104	Materials	Tozer	Stan	National High Magnetic Field Laboratory	"High Pressure Studies of CeIn <sub>3</sub> in High Magnetic Fields"
67	Materials	Weinberger	Michelle	GL-Carnegie Institution of Washington	Rational Design and Characterization of Ultra-Incompressible Superhard Materials
102	Materials	Winterrose	Michael	Caltech	"Pressure-Induced Invar Behavior in Pd <sub>3</sub> Fe"
73	Materials	Yang	Wenge	HPCAT, Carnegie Institution of Washington	"HOCAT science highlight-II"
112	Materials	Zha	Chang-Sheng	Carnegie Institution of Washington	"X-ray diffraction study for H <sub>2</sub> O ice to 200 Gpa"
105	Materials	Zhu	Hongyang	Texas Tech University	"Synthesis and High pressure X-ray diffraction study of nanocrystalline silicon carbide"
110	Materials	Zocco	Diego	University of California San Diego, Maple Lab	"Pressure dependence of electronic ground states in f electron materials"
Board Room		Dvorakova	Zuzana	LBNL	"Separation of Micro Quantities of Am from Pu Targets"
Board Room	HEDP	Presura	Radu	University of Nevada Reno - NTF	"Effect of an axial wire on wire array z-pinch dynamics"
Board Room	HEDP	Presura	Radu	University of Nevada Reno - NTF	"Magnetically accelerated flyers for investigating shock waves in inhomogeneous foams"
Board Room	Materials	Dorfman	Susannah	Princeton University	"Superhard Phases in the Alkaline Earth Fluorides at High Pressure?"

Board Room	Materials	Mao		Princeton University	Effects of hydrogen incorporation on elasticity of a mantle silicate to 12 GPa
Board Room		Ivanov	Vladimir	University of Nevada Reno - NTF	"Mitigation of plasma implosion inhomogeneity in star-like wire-arrays"
Board Room		Ivanov	Vladimir	University of Nevada Reno - NTF	"Study of "anomalous" plasma heating in small-diameter wire-array z-pinches"
Board Room		Sotnikov	Vladimir	University of Nevada Reno - NTF	"Investigation of possible nonlinear mechanisms of enhanced transport and particle heating in a high beta plasma of a Z-pinch and in laboratory astrophysics experiment"
Board Room		Covington	Aaron	University of Nevada Reno - NTF	"Investigations of the Influence of Materials Properties on HED Science"
Board Room		Sotnikov	Vladimir	University of Nevada Reno - NTF	"Hybrid Simulations of Multi-species Z-pinch Plasmas"