

Grand Hyatt San Francisco Ballroom Floor Plan

***Ballroom is on lowest level (down escalators)



Agenda:

Monday Morning, July 14, 2014: Plenary Session (Grand Ballroom)

6:45 – Session Chair Breakfast (Fillmore A, B, C)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	Intro	Joel Carney	NSWC	Welcome
8:20	GS I	Jon Maienschein	LLNL	An Integrated Look at Insensitive High Explosives – Why Are They Insensitive?
8:40	GS I	Arnaud Sollier	CEA	Influence of the front curvature on the response of embedded electromagnetic particle velocity gauges
9:00	GS I	Gerrit Sutherland	ARL	Additional Calibration Data for the Large Scale Gap Test and Expanded Large Scale Gap Test
9:20	GS I	Harold Sandusky	NSWC	Survivability of Explosives with Dynamically Collapsing Cavities
9:40	BREAK			
10:00	GS II	Bryan Henson	LANL	A hypothesis for the mechanism of insensitivity in TATB
10:20	GS II	Laurence Fried	LLNL	Simulation of cluster formation in overdriven TATB by molecular dynamics and continuum mechanics
10:40	GS II	Louisa Michael	Cambridge	The temperature field around collapsing cavities in condensed phase explosives.
11:00	GS II	Eric Welle	AFRL	Minding the Gap Between the Continuum and Mesoscale
11:20	GS II	Caroline Handley	AWE	CREST models for PBX 9501 and PBX 9502
11:40	GS II	Jeffery Kay	Sandia	Spectroscopic Analysis of Time-Resolved Emission from Shocked Explosive Samples
12:00				
12:20	LUNCH	Ballroom Foyer		
12:40				

Monday Afternoon, July 14, 2014: Advanced and Novel Experimental Techniques (GB East)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:00	A1 - ANET	John Henry Williams	AFRL	Development of the High Explosive Survivability Test
13:20	A1 - ANET	Christelle Collet	Herakles	EXPERIMENTAL FACILITIES TO CHARACTERISE EFFECTS OF MULTIPHASE BLAST EXPLOSIVES
13:40	A1 - ANET	Karl Lorenz	LLNL	Rapid, small-scale assessment of detonation performance using Disc Acceleration experiments (DAX)
14:00	A1 - ANET	Gary Parker	LANL	Cookoff violence of PBX 9501 in a quasi-2-dimensional configuration: the effects of ignition location and confinement strength
14:20	A1 - ANET	Joshua Felts	NSWC IHEODTD	Friction Simulator for High-Pressure Inertial Environments
14:40	A1 - ANET	Amanda Duque	LANL	Microwave-Induced Fast Thermal Decomposition of HMX
15:00	BREAK			
15:20	A3 - ANET	Joey Talghader	Oklahoma State University	Thermometry using Microparticle Thermoluminescence: Overview and Outlook
15:40	A3 - ANET	Werner Arnold	MBDA - TDW	Analysis of Shock and Jet Initiation Tests of High Explosives
16:00	A3 - ANET	Scott Jackson	LANL	Scaled Cylinder Test Experiments with Insensitive PBX 9502 Explosive
16:20	A3 - ANET	Richard Lee	NSWC IHEODTD	Comparison of Small-Scale Tunnel and Large-Scale Free-Field Blast Performance
16:40	A3 - ANET	David Kittell	Purdue University	A Comparison of Wavelet and Quadrature Methods for Determining Shock Velocity from Microwave Interferometer Data
17:00	A3 - ANET	Bryce Tappan	LANL	Evaluation of the Reaction of Magnesium-Boron and Aluminum in PBX 9501-Based Explosives in the Cylinder Test

Monday Afternoon, July 14, 2014: Detonation and Sub Detonative Phenomena (GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:00	A2 - DSDP	Konstantin Ten	Lavrentiev Institute	Carbon condensation during detonation of high explosives
13:20	A2 - DSDP	Thuvan Piehler	ARL	Study of coupling electrical energy to detonation reaction zone of Primasheet-1000 and trinitrotoluene (TNT)
13:40	A2 - DSDP	Christopher Romick	LANL	Two-Dimensional Detonation Propagation using Shock-Fitting
14:00	A2 - DSDP	Allen Kuhl	LLNL	Model of Conductivity Profiles in TNT Detonations
14:20	A2 - DSDP	Dana Dattelbaum	LANL	Influence of window characteristics on chemical reaction zone measurements in PBX 9502
14:40	A2 - DSDP	Henri-Noel Presles	Institut PPRIME P' (UPR 3346 CNRS)	PHENOMENOLOGICAL DESCRIPTION OF THE SPONTANEOUS DETONATION MECHANISM IN MOISTENED AMMONIUM NITRATE – SODIUM DICHLOROISOCYANURATE MIXTURE
15:00	BREAK			
15:20	A4 - DSDP	Karol Woirin	Herakles	PERFORMANCE AND CHARACTERISTICS OF NANO PARTICLES BASED HIGH EXPLOSIVES
15:40	A4 - DSDP	John Bdzil	LANL	The interaction of a detonation reaction zone with inert material confinement: the effect on the reaction zone
16:00	A4 - DSDP	Brook Jilek	Sandia National Laboratories	Unreacted Equations of State of Sylgard and Hexanitroazobenzene Determined by Ultrafast Time Domain Interferometry
16:20	A4 - DSDP	Blaine Asay	LANL	A multi-component detonation reaction zone model for blast explosives
16:40	A4 - DSDP	Andre Bellerive	University of Ottawa	A non-linear evolution equation for pulsating detonations using Fickett's model with chain branching kinetics
17:00	A4 - DSDP	Daniel Lanterman	NSWC IHEODTD	An Improved Empirical Fit of the Detonation Product Isentrope Near the CJ Point

Tuesday Morning, July 15, 2014: Modeling (GB East)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	B1 - MOD	Ryan Austin	LLNL	Grain scale simulations of pore collapse and chemical reaction in shock-loaded β -HMX crystal
8:20	B1 - MOD	Martin Braithwaite	University of Cambridge	Reduced, Chemistry Implicit, Equations of State for Explosion and Detonation Products
8:40	B1 - MOD	Ray Shan	Sandia National Laboratories	Atomistic Simulation of Nanoscale Void-Enhanced Initiation in Hexanitrostilbene
9:00	B1 - MOD	Seokpum Kim	Georgia Institute of Technolog	Effect of Multiple Sources of Material Stochasticity on the Probabilistic Ignition Behavior of PBXs
9:20	B1 - MOD	Sorin Bastea	LLNL	Chemical equilibrium and carbon kinetics in explosives
9:40	BREAK			
10:00	B3 - MOD	John Starckenberg	Dynamic Science	A Pseudo-Entropic Approach to Explosive Initiation Modeling with Shock Desensitization
10:20	B3 - MOD	I-Feng Kuo	LLNL	Detonation Kinetics Modeling of Liquid Hydrogen Peroxide and Nitromethane Mixtures via Reactive Flow ALE3D/Cheetah Simulations
10:40	B3 - MOD	David Damm	Sandia National Laboratories	Development of a Grain-scale Model for Initiation of HNS
11:00	B3 - MOD	Nir Goldman	LLNL	Slow N-O chemistry in detonating oxygen balanced liquid mixtures
11:20	B3 - MOD	Jeffrey Salmond	University of Cambridge	Characterisation of Reaction Waves in the Initiation of Detonation
11:40	B3 - MOD	Michael Anderson	Illinois Rocstar	A Physics-based Hotspot Model for Pore Collapse in HMX

Tuesday Morning, July 15, 2014: Thermal and Mechanical Properties (GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	B2 - TMP			
8:20	B2 - TMP	Michael Hobbs	Sandia National Laboratories	The Effect of Confinement on Cookoff of Explosives
8:40	B2 - TMP	Elizabeth Glascoe	LLNL	Mechanisms of Comp-B Thermal Explosion
9:00	B2 - TMP	Rod Drake	AWE	The Effect of HMX Particle Size on Thermal Ignition
9:20	B2 - TMP	Matt Holmes	LANL	Pressure Dependence of Slow Cookoff Behavior in Heavily Confined Bucket Tests of PBX 9502
9:40	BREAK			
10:00	B4 - TMP			
10:20	B4 - TMP	Leonard Stiel	Polytechnic Institute of NYU	Thermochemical Calculations for Explosives with Polymeric Binders
10:40	B4 - TMP	Dai Xiaogan	Beijing Institute of Technology	Fragment Impact Ignition Mechanism for Different HMX-based PBX at high Temperature
11:00	B4 - TMP	Peter Dickson	LANL	Friction-induced heating and ignition of PBX 9501
11:20	B4 - TMP	Michael Furnish	Sandia National Laboratories	Equation-of-State and Shock Homogeneity of IMX-101 and IMX-104
11:40	B4 - TMP	Eric Heatwole	LANL	Grit-Mediated Ignition of Plastic-Bonded Explosives on Low-Melting-Point Surfaces

Tuesday Afternoon, July 15, 2014: Thermal and Mechanical Properties (GB East)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:20	B5 - MOD	Aidan Thompson	Sandia National Laboratories	Micron-scale Reactive Atomistic Simulations of Void Collapse and Hotspot Growth in PETN
13:40	B5 - MOD	George Levesque	LLNL	A Meso-Scale Informed Statistical Hot Spot Model for Run-to-Detonation
14:00	B5 - MOD	Robert Dorgan	AFRL	Reactive Burn Model Development Incorporating Ignition and Sustained Pulse Data Sets
14:20	B5 - MOD	D. Barrett Hardin	Georgia Institute of Technology	Quantifying the Effect of Rate-Dependent Plasticity of HMX Particles on the Mechanical Behavior and Ignition Sensitivity of PBXs
14:40	BREAK			
15:00	B7 - ANET	Elizabeth Francois	LANL	Diagnostic Development in Hemispherical Testing on PBX 9501 and LX-07
15:20	B7 - ANET	Matthew Biss	ARL	Optically Measuring the Invisible: Explosive Impulse
15:40	B7 - ANET	Terry Salyer	LANL	A Spectrally-Encoded Imaging Diagnostic for Shock and Detonation Physics Experiments

Tuesday Afternoon, July 15, 2014: Molecular/Mesoscale Effects & Detonation (GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:20	B6 - MME	Trevor Willey	LLNL	The Mesoscale Evolution of Voids in HMX-based Explosives During Heating Through the Beta-Delta Phase Transition
13:40	B6 - MME	Maija Kuklja	University of Maryland	Comparative Analysis of Defect-Induced Effects on Thermal Stability of β - and δ -HMX: First Principles Modeling
14:00	B6 - MME	Joseph Hooper	Naval Postgraduate School	Mechano- and thermochromic polymers as in-situ sensors for hot spots in explosive composites
14:20	B6 - MME	Keith Gonthier	Louisiana State University	Shock Induced Ignition of Porous HMX--Computational Examination of Hot-Spot Formation Rates
14:40	BREAK			
15:00	B8 - DSDP	John Reaugh	LLNL	Computer Simulations to Study the Effects of Explosive Energetic and Constitutive Properties on DDT
15:20	B8 - DSDP	William Perry	LANL	Constant Volume Explosion

Tuesday Afternoon, July 15, 2014: POSTER SESSION (FOYER)
16:00 to 19:00

<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
ANET	Adam Coleman	Oklahoma State University	Particle Thermometry using Thermoluminescence: Overview and Outlook
ANET	Geoff Brown	LANL	Measurement of Near-Field Blast Effects from Conventional and Homemade Explosives Using a Kinetic Plate Test
ANET	George Overturf	LLNL	A New Light Enhancement Coating Formulation to be used for TATB Detonation Front Detection
ANET	Kevin Vandersall	LLNL	Shock Desensitization Experiments and Reactive Flow Modeling on Self-Sustaining LX-17 Detonation Waves
ANET	Kimberly Haulenbeek	Sandia National Laboratories	Structural Damage Equivalence of Selected Explosive Materials Based on the Response of Thin Circular Plates Subjected to Blast Loading
ANET	David Stevens	LLNL	Flash X-Ray Resolved Trajectory of Discrete Particles from Embedded Explosive Detonation
ANET	Pengwan Chen	Beijing Institute of Tech	Experimental Study on dynamic tensile properties of polymer bonded explosives
ANET	Trevor Willey	LLNL	Binder Mixing and Concentration Variation in TATB Polymer-Bound Explosives
DSDP	Aleksey Kashkarov	Lavrentiev Institute of Hydrodynamics	Shock Hugoniot data for different initial density of TATB-based HE using synchrotron radiation
DSDP	Bryce Tappan	LANL	Cylinder Tests of Low-Detonation Velocity Explosives in Plastic Confinement for Determination of Product Gas Equation of State
DSDP	Dana Dattelbaum	LANL	A comparison of the shock sensitivities, and resulting reactive flow of several 2,4,6-trinitrotoluene-based explosives
DSDP	Douglas Kooker	Dynamic Science / ARL	A Mechanism to Quench Detonation in Composite Solid Explosive
DSDP	Ewgeny Smirnov	FSUE RFNC-VNIITF	SHOCK COMPRESSIBILITY OF LOW SENSITIVE HE OF VARIOUS INITIAL POROSITY
DSDP	Jaimin Lee	Agency for Defense Development	SDT Characteristics of a HNIW-Based Explosive
DSDP	James Ferguson	AWE	The Effect of the Binder on the Performance of TATB Based Insensitive High Explosives.
DSDP	Jianling Li	China Academy of Engineering Physics	Propagation Distance Required to Reach Steady-State Detonation Velocity in Finite-Sized Charges
DSDP	Jing-Ping Lu	Australian Defence Department	Simulation of Shock Initiation Tests

Tuesday Afternoon, July 15, 2014: POSTER SESSION (FOYER) - CONTINUED
16:00 to 19:00

Session	Speaker	Org	Title
DSDP	John Yeager	LANL	Effect of Temperature on Detonation Propagation in Composition B
DSDP	Joshua Calnan	University of Kentucky	Examining the Detonation Characteristics of Detonating Cord in an Interwoven Configuration
DSDP	Michael Hobbs	Sandia National Laboratories	JCZS2i: An Improved JCZ Database for EOS Calculations at High Temperatures and Pressures
DSDP	Natalya Satonkina	Institute of Hydrodynamics	Formation of carbon nets in detonation products of high explosives
DSDP	Peter Hsu	LLNL	Study of Thermal Sensitivity and Thermal Explosion Violence of Energetic Materials in the ODTX System
DSDP	David Robbins	LANL	Cylinder Test Characterization of an Ammonium Nitrate-Aluminum Powder Explosive
DSDP	Richard (Rick) Gustavsen	LANL	Initiation of Composition B by impact of flat nosed rods
DSDP	Shiro Kubota	National Institute of Advanced	Empirical formula of size effect curve and pressure measurement for confined AN/AC mixture
DSDP	Valentina Mochalova	ICPC RAS	The instability of detonation waves for nitromethane and FEFO
MOD	Alexander Khaneft	Kemerovo State University	THE MODELING OF ORGANIC EXPLOSIVE INITIATION BY A SHORT LASER PULSE AND AN ELECTRON PULSE
MOD	Bill Byers-Brown	Manchester University, UK.	Entropic Theory of Detonation Failure
MOD	Edvard Prueel	Lavrentiev Institute of Hydrodynamics	TOMOGRAPHY OF GAS-DYNAMIC CHARACTERISTICS OF THE DETONATION FLOW
MOD	Rahul	Rensselaer Polytechnic Institute	Continuum Modeling of the α - γ Phase Transformation of RDX
MOD	Harry Springer	LLNL	Investigating Deflagration--Induced Deconsolidation in HMX--Based Explosives with Reactive Meso--Scale Simulations
MOD	Leah Tuttle	Sandia National Laboratories	Comparison of reactive flow models and equations of state using CTH
MOD	Malcolm Cartwright	University of Leeds	Implementation of CREST Reactive Burn Model into the Straight Streamline Approximation
MOD	Muhammed Suceska		Can the accuracy of BKW EOS be improved?
MOD	Oleg Sergeev	FSUE VNIIA	Molecular dynamics modeling of the reaction propagation in PETN
MOD	Riad Manaa	LLNL	First-principles high-pressure unreacted equation of state and heat of formation of LLM-105

Tuesday Afternoon, July 15, 2014: POSTER SESSION (FOYER) - CONTINUED
 16:00 to 19:00

<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
MOD	Trumel Herve	CEA	A fast Fourier transform micromechanical upscaling method for the study of the thermal expansion of a TATB-based pressed explosive.
MME	Liaisan Badretdinova	Kazan National Research	INVESTIGATION OF MICRO-, MESO-, AND MACROSTRUCTURE OF THE PRESSED PARTS MADE OF HE TATB
NNTM	John Reynolds	LLNL	Small-Scale Safety and Thermal Testing of Improvised Explosives—Correlation of Results from a Multi-Laboratory Proficiency Test
NNTM	Karol Woirin	Herakles (SAFRAN group)	VERY LOW CRITICAL DIAMETER EXPLOSIVE COMPOSITION FORMULATION AND CHARACTERIZATION
NNTM	Noriyuki Kaga	Nippon-koki. Co.	Measurements of Detonation Properties of Aluminized Emulsion Explosive
NNTM	Maija Kuklja	University of Maryland	SYNTHESIS AND THERMAL STABILITY OF THE NOVEL EXPLOSIVE MATERIALS BNFF, BNFF-1 AND ANFF-1
TMP	Franco Gagliardi	LLNL	Strain Response of Insensitive High Explosives to the Combined Effects of Confinement and Temperature Change
TMP	John Densmore	LLNL	Impact Initiated combustion of Nickel-Aluminum and Aluminum-Polytetrafluoroethylene Reactive Materials
TMP	Junlong Li	Chongqing Hongyu Precision Ind	Preparation and characterization of submicron CL-20
TMP	Leonard Stiel	Polytechnic Institute of NYU	Relationships for the Thermodynamic Properties of Carbon Phases At Elevated Temperatures and Pressures
TMP	William Perry	LANL	New insights to the irreversible thermal expansion of TATB

Wednesday Morning, July 16, 2014: New/Non-Traditional Materials (GB East)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	C1 - NNTM	Kibong Kim	AER	Detonation Initiated Chemical Reactions in Structural Energetic Materials
8:20	C1 - NNTM	Fan Zhang	DRDC Suffield	A Concept to Enhance Fragmentation of Structural-Reactive-Material Cases
8:40	C1 - NNTM	Henric Östmark	FOI	Melt Cast ADN and Aluminum: A new and Powerful Underwater Explosive
9:00	C1 - NNTM	Peter Vitello	LLNL	High Resolution Chemistry Based Modeling of LLM-105 Explosives
9:20	C1 - NNTM	Jason Loiseau	McGill University	Acceleration of Flyers by Explosives Heavily Loaded with Inert Materials for Grazing, Normal and Over-Driven Detonations
9:40	BREAK			
10:00	C3 - NNTM	Yukio Kato	Nippon-koki. Co.	Aluminum Reactions in Detonation Products of Nitromethane-Aluminum Mixtures
10:20	C3 - NNTM	Lee Glascoe	LLNL	The Effect of Aluminum on the Explosive Performance of Different Chlorate-based Mixtures
10:40	C3 - NNTM	Amber Daniels	NSWC IHEODTD	Evaluation of Thermal Sensing Materials in Closed Chamber Detonations
11:00	C3 - NNTM	Virginia Manner	LANL	Static High-Pressure Measurements and Detonation Characteristics of R-salt, a Cyclic Nitrosamine
11:20	C3 - NNTM	Nicholas Piekieł	ARL	Tailoring Porous Silicon Combustion for Lead-Free Initiators
11:40	C3 - NNTM	Alexander Dolgoborodov	ICP RAS	Detonation-like Processes in Solid Fuel-Oxidizer Mechanoactivated Composites
12:00	C3 - NNTM	Paul Wilkins	LLNL	Laser Deflagration-to-Detonation in Keto-RDX doped with Resonant Hollow Gold Nanoshells

Wednesday Morning, July 16, 2014: Detonation and Sub-Detonative Phenomena
(GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	C2 - DSDP	Valentina Mochalova	IPCP RAS	Detonation Wave Parameters of PENT and CL-20
8:20	C2 - DSDP	Olivier Bozier	CEA	Detonation velocity of a TATB-based high-explosive as a function of density, temperature and curvature.
8:40	C2 - DSDP	Leah Tuttle	Sandia National Laboratories	Detonation Product Equation of State for TATB-based Explosives
9:00	C2 - DSDP	John Molitoris	LLNL	Characterization of Initiation, Detonation and Failure in near-ideal and non-ideal Explosives
9:20	C2 - DSDP	Carlos Chiquete	LANL	DSD calibration of PBX 9501 via slab geometry experiments
9:40	BREAK			
10:00	C4 - DSDP	Larry Hill	LANL	Detonation Confinement Sandwich Tests: The Effect of Single and Multiple Confining Layers on PBX 9502 Detonation
10:20	C4 - DSDP	Marcia Cooper	SNL	Sub-Detonative Response of a Potassium Chlorate-Sugar Mixture
10:40	C4 - DSDP	Remy Sorin	CEA	Cylinder test: homothetic experiments of TATB-based composition
11:00	C4 - DSDP	Sam Vincent	LANL	The Geometric Scaling of IMX-104 Explosive: Detonation Velocity versus Charge Size for Cylinder- and Slab-Geometry Rate Sticks
11:20	C4 - DSDP	Shaoming Hu	Carleton University	Calculation of Both High Velocity Detonation and Low Velocity Detonation Processes Using a Unified Model
11:40	C4 - DSDP	Magnus Bergh	FOI	Characterization of Performance and non-Ideality of Urea Nitrate

Thursday Morning, July 17, 2014: Advanced and Novel Experimental Techniques (GB East)

Start Time	Session	Speaker	Org	Title
8:00	D1 - ANET	Michael Murphy	LANL	SWIFT and Explosive PIV
8:20	D1 - ANET	Malcolm Burns	AWE	Project Magnes – a permanent magnet array for the particle velocity gauge diagnostic.
8:40	D1 - ANET	Hergen Eilers	Washington State University	Advanced Luminescent Core/Shell Temperature Sensors for Use in Explosions
9:00	D1 - ANET	Kevin Vandersall	LLNL	Double Shock Experiments and Reactive Flow Modeling of High Pressure LX-17 Detonation Reaction Product States
9:20	D1 - ANET	Scott Jackson	LANL	Fiber Bragg Grating Sensors and Their Sensitivity to Changes in Detonation Velocity across Interfaces
9:40	BREAK			
10:00	D3 - ANET	Margo Greenfield	LANL	Towards optical control of energetic materials
10:20	D3 - ANET	Joseph Tringe	LLNL	Microwave Interferometry for Understanding Deflagration-to-Detonation and Shock-to-Detonation Transitions in Porous Explosives
10:40	D3 - ANET	Jennifer Gottfried	ARL	Laser-induced shock chemistry of energetic materials
11:00	D3 - ANET	Shawn McGrane	LANL	Implications of kinetic data from ultrafast laser shock experiments
11:20	D3 - ANET	Michael Armstrong	LLNL	Ultrafast kinetics subsequent to shock in an unreacted, oxygen balanced mixture of nitromethane and hydrogen peroxide
11:40	D3 - ANET	Matthew Briggs	LANL	Optical ranging to measure the material approach missed by optical velocimetry

Thursday Morning, July 17, 2014: Detonation and Sub-Detonative Phenomena (GB West)

Start Time	Session	Speaker	Org	Title
8:00	D2 - TMP	Kyle Ramos	LANL	Effects of Orientation, Pressure/Strain Rate and Microstructure on the Quasi-static Deformation and Shock Response of Single Crystal Explosives
8:20	D2 - TMP	Joseph Zaugg	LLNL	Unreacted Equations of State of Shocked Single Crystal PETN and Beta-HMX
8:40	D2 - TMP	David Kittell	Purdue University	Modeling Small Scale Detonation Experiments with Pressed TATB
9:00	D2 - TMP	Elizabeth Lee	AWE	The Role of Energy Deposited Post Bridgewire Burst on the Performance of Exploding Bridgewire Detonators.
9:20	D2 - TMP			
9:40				
10:00	D4 - DSDP	Neil Bourne	University of Manchester	The deflagration of energetic crystals at pressures above the weak shock limit
10:20	D4 - DSDP	Robert Knepper	Sandia National Laboratories	Effects of confinement on detonation behavior of vapor-deposited hexanitroazobenzene films
10:40	D4 - DSDP	Alexander Gash	LLNL	Mechanical and thermal characteristics of LLM-105 molecular crystals
11:00	D4 - DSDP	Alexander Tappan	Sandia National Laboratories	Critical detonation thickness in vapor-deposited hexanitroazobenzene (HNAB) films with different preparation conditions
11:20	D4 - DSDP	Mike Bowden	AWE	Short Duration Shock Initiation of Detonator Explosives
11:40	D4 - DSDP	Laura Smilowitz	LANL	Following Reaction Progress from Thermal Decomposition to Ignition and Internal Burning

Thursday Afternoon, July 17, 2014: Modeling (GB East)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:20	D5 - MOD	Paul Demmie	Sandia National Laboratories	Detonation Modeling in Peridynamic theory
13:40	D5 - MOD	Brian Lambourn	AWE	Implications of Mesoscale Phenomena on Modelling the Shock to Detonation Transition at Continuum Scale
14:00	D5 - MOD	Stefan Schoch	University of Cambridge	Propagation of detonation waves in ANFO confined by high sound-speed materials
14:20	D5 - MOD	Mary-Ann Maheswaran	AWE	Modelling the shock to detonation transition in PETN using CREST
14:40	D5 - MOD	She-Ming Lau-Chapdelaine	University	On the existence and stability of double-front detonations
15:00	BREAK			
15:20	D7 - MOD	Alec Milne	FGE Ltd	Explosive Fragmentation of Liquids in Spherical Geometry
15:40	D7 - MOD	Alban Combe	Herakles (SAFRAN group)	A multi-phase, multi-material model for the simulation of MBX
16:00	D7 - MOD	Bradley White	LLNL	Investigating the effects of microstructure and binder properties on impact-induced fragmentation in explosives with meso-scale simulations
16:20	D7 - MOD	Elise Croft	University of Cambridge	Modelling multiphase detonation with streamline models
16:40	D7 - MOD	Robert Ripley	Martec Limited	Jetting Instability Mechanisms of Particles from Explosive Dispersal
17:00	D7 - MOD	Jing-Ping Lu	Australian Defence Dept	Experiments and Modelling of Sympathetic Detonation Initiated by Fragmented Donor Case

Thursday Afternoon, July 17, 2014: Molecular and Mesoscale Effects & Detonation (GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
13:20	D6 - MME	Didier Picart	CEA	Real-time observations of the deformation of a Plastic-bonded explosive
13:40	D6 - MME	Kathryn Brown	LANL	Probing the Reactive Chemistry of Shocked Sensitized Nitromethane
14:00	D6 - MME	Zbigniew Dreger	Washington State University	Toward Understanding the Low Sensitivity of FOX-7 to Initiation: High Pressure – High Temperature Polymorphism and Chemical Stability
14:20	D6 - MME	Malcolm Cook	Syanco Ltd	Predicting the elastic and thermal properties of energetic crystals using ab-initio quantum chemistry tools
14:40	D6 - MME	John Yeager	LANL	Formulation-derived interface characteristics contributing to failure in plastic-bonded explosive materials
15:00	BREAK			
15:20	D8 - DSDP	Jake Gunderson	LANL	A Grit-Surface Interaction Model for Frictional Ignition of PBX 9501
15:40	D8 - DSDP	Michael Goff	Cranfield University	Ramp wave loading of Kel-F 81 and EDC37 observed with embedded particle velocity gauges
16:00	D8 - DSDP	Craig Tarver	LLNL	Overcoming LX-17 Detonation Failure Diameter Size by High Pressure Shock Initiation using Ultra Fast, Thin, Small Diameter Flyer Plates
16:20	D8 - DSDP	Hugh James	AWE	Comparison of Shock Initiation Threshold Criteria for Projectiles with Flat Impact Surfaces
16:40	D8 - DSDP	John Christensen	LLNL	Probabilistic Shock Threshold Criterion Development for LX-17

Friday Morning, July 18, 2014: Modeling (GB East)

8:00	E1 - MOD	Albert Nichols	LLNL	Modeling the Response of Fluid/Melt Explosive to Slow Heat
8:20	E1 - MOD	Nicholas Whitworth	AWE	CREST Modelling of the Jack Rabbit Series of Experiments
8:40	E1 - MOD	Qing Peng	Rensselaer Polytechnic Institute	A first-principles investigation of the crystal structure, elastic properties, and equation of states of β -cyclotetramethylene tetranitramine (HMX)
9:00	E1 - MOD	Nicolas Pineau	CEA/DAM	Equation of state of the TATB monocrystal from DFT-based ab initio simulations
9:20	E1 - MOD	Tariq Aslam	LANL	Multi-shock and isentropic compression of the tri-amino-tri-nitro-benzene based explosive PBX 9502: Evaluation of reactive flow models
9:40	BREAK			
10:00	E3 - MOD	Rahul	Rensselaer Polytechnic Institute	Phase Field Modeling of Deformation Twinning of β -HMX
10:20	E3 - MOD	Harry Springer	LLNL	Investigating Shock Compaction Initiation in Powder Explosives with Reactive Meso--Scale Simulations
10:40	E3 - MOD	Yehuda Partom	Retired from RAFAEL	Corner Turning Modeling with a Temperature Dependent Reactive Flow Model
11:00	E3 - MOD	Matthew McClelland	LLNL	ALE3D Simulation of Incompressible Flow, Heat Transfer, and Chemical Decomposition of Comp B in Slow Cookoff Experiments
11:20	E3 - MOD			
11:40	Carney/Maienschein			CONFERENCE WRAP-UP
12:00	END OF CONFERENCE			

Friday Morning, July 18, 2014: Detonation and Sub-Detonative Phenomena (GB West)

<u>Start Time</u>	<u>Session</u>	<u>Speaker</u>	<u>Org</u>	<u>Title</u>
8:00	E2 - DSDP	Martin Lueck	Fraunhofer EMI	Experimental and Numerical Analysis of Thermomechanical Effects During Laser Irradiation of Confined Explosives
8:20	E2 - DSDP	Peter Haskins	Ordnance test solutions	Dual Fragment Impact
8:40	E2 - DSDP	Catherine Johnson	University of Kentucky	Investigating Shock Wave and Detonation Wave Interactions and their Influence on Fragmentation
9:00	E2 - DSDP	Peter Hsu	LLNL	Material Property Characterization of Thermally Damaged HMX-based Formulations
9:20	E2 - DSDP	Christopher Hughes	AWE	Explosive Powder Response to Pinch Arising from Low Speed Spigot Impact
9:40				
10:00	E4 - DSDP	Eric Anderson	LANL	Analysis of Adjacent Detonating Explosive Slabs
10:20	E4 - DSDP	Pengwan Chen	Beijing Institute of Tech	Safety of high explosives under low velocity impact: experiment, ignition criterion and numerical prediction
10:40	E4 - DSDP	Cuauhtemoc Aviles-Ramos	LANL	Validation of a Pressure Dependent PBX 9502 Cookoff Model
11:00	E4 - DSDP	Jin Yao	LLNL	An Efficient Particle Based DSD Front Tracker With An Arbitrary HE Boundary
11:20	E4 - DSDP	Ewgeny Smirnov	FSUE RFNC-VNIITF	TRANSITION OF SHOCK WAVE INTO DETONATION WAVE IN POROUS LOW SENSITIVITY HE
11:40	Carney/Maienschein			CONFERENCE WRAP-UP
12:00	END OF CONFERENCE			