

Day One - Tuesday 11 September 2018

Air Force Office of Scientific Research - DM&I

Presentation #	Time	Presenter	Organization	Title
	8:00 AM			REGISTRATION
1	8:30 AM	Schmidt, Martin	AFOSR	Welcome and Dynamic Materials and Interactions Portfolio
2	8:45 AM	Molek, Christopher	AFRL	Effects of Microstructure on Energetic Materials
3	9:15 AM	Udaykumar, H.S.	University of Iowa	Mesoscale Reactive Computations of Energetic Materials and Surrogate Model Construction for Multi-Scale Computing
	9:45 AM			BREAK
4	10:15 AM	Kidane, Addis	University of South Carolina	(YIP) Quantification of Local Deformation in Energetic Materials Subject to Dynamic Loading using DIC
5	10:45 AM	Jacobs, Gustaaf	San Diego State University	Modeling of Blast Waves with Reactive Particles
6	11:15 AM	Greendyke, Robert/Schwaab, Mathew	Air Force Institute of Technology	Arrhenius Rate Chemistry Informed Inter-Phase Source Terms (ARCIIST) for Macro-Scale Hydrocodes
	11:45 AM			LUNCH
7	1:00 PM	Spowart, Jonathan/Neel, Christopher	AFRL	Novel Material Microstructures for Shock Survivability
8	1:30 PM	Boechler, Nicholas	UNIVERSITY OF California SD	Materials with designed nonlinearities: enabling a new generation of stress wave
9	2:00 PM	Diott, Dana/Vashishta, Priya	Univesity of Illinois - Urbana - Champaign/University of Southern California	Real-Time Dynamics of Hot Spots in Microstructured Energetic Materials: Experiments and Simulations
	3:00 PM			BREAK
10	3:30 PM	Wilkerson, Justin	Texas A&M	A Multifunctional Materials-by-Design Approach to Ignition Desensitization
11	4:00 PM	Sewell, Thomas	University of Missouri	Atomic-Scale Theoretical Studies of Shock Response in Oriented Energetic Single Crystals and Across Crystal-Crystal Interfaces
	4:30 PM			ADJOURN

Day Two - Wednesday 12 September 2018

Air Force Office of Scientific Research - DM&I

Presentation #	Time	Presenter	Organization	Title
	8:00 AM			REGISTRATION
13	8:15 AM	Zhou, Min/ Thadhani, Naresh	Georgia Institute of Technology	Meso-Scale Diagnostics and Modeling for Temperature and Deformation Fields in Heterogeneous Energetic Materials
14	9:00 AM	Gangopadhyay, Shubhra	University of Missouri	Multi-Scale Directed Self-Assembly of Nanoenergetics Utilizing Functionalized Graphene and Other 2D Oxidizers
15	9:30 AM	Zachariah, Michael	University of Maryland	Structure-Reactivity
	10:00 AM			BREAK
16	10:30 AM	Dreizin, Edward	NJIT	Reactive materials with burn rate adjusted by initiation method
17	11:00 PM	Sun, Waiching	Columbia University	(YIP)Modeling the High-Rate Responses of Wetted Granular Materials Across Scales
18	11:30 PM	Eilers, Hergen	Washington State University	Real-Time, Experimental Characterization/ Investigation of Hot Spots in Shocked Heterogeneous Materials
	12:00 AM			LUNCH
19	1:00 PM	Oskay, Caglar/ Tomar, Vikas; Gunduz, Emre	Vanderbilt University/Purdue University	Multi-Scale Experiments and Modeling of Dynamic Energetic Material Failure Including Stochastic Interfaces
20	2:00 PM	Tartakovsky, Daniel	Stanford University	Random initiation and reaction propagation in energetic materials
21	2:30 PM	Manni, Stacy	AFRL	Surface and Interfacial Influences on the Bulk Mechanical Responses of Composite
	3:00 PM			POSTER SESSION
	5:00 PM			ADJOURN

Day Three - Thursday 13 September 2018

Air Force Office of Scientific Research - DM&I

Presentation #	Time	Presenter	Organization	Title
	8:00 AM			REGISTRATION
22	8:15 AM	Guduru, Pradeep/Clifton, Rodney	Brown University	High-Speed Infrared Imaging of Energetic Materials: Dynamic Experiments and 3D Modeling
23	9:00 AM	Seidel, Gary	Virginia Tech University	(YIP) Embedded Strain Sensing and Damage Detection in Nanocomposite Bonded Energetic Materials
	9:30 AM			BREAK
24	10:00 AM	Son, Steve; Chen, Wayne; Meyer, Terry; Koslowski, Marisol; Gonzalez, Marcial	Purdue University	Mesoscale Deformation and Temperature Fields in Reacting Energetic Materials under Impact and Periodic Loading
	12:00 AM			LUNCH
25	1:30 PM	Chaudhuri, Santanu	University of Illinois	Insensitivity-by-Design: An Atomistic-to-mesoscale Framework for
26	1:50 PM	Maestas, Joeseeph	Applied Research Associates	Numerically Predicting High Explosive Violent Response (HEVR)
27	2:10 PM	Schrum, Kevin	U Alabama - Birmingham	Applying the Work Potential Theory to the Material Characterization of Concrete
28	2:30 PM	Revil-Baudard, Benoit	University of Florida	New framework for constitutive modeling and numerical simulation of energet
29	2:50 PM	Houim, Ryan	University of Florida	Seedling project on the simulation of reactive material particle combustion
30	3:10 PM	Gonzales, Manny	AFRL/RX	Meso-scale evolution and optimization of heterogeneous structural reactive mater
31	3:30 PM	Borg, John	Marquette University	Connecting Experiments and Simulations while Designing Functionality into t
	3:50 PM			Closing Comments
	4:00 PM			ADJOURN