



Materials in Extreme Dynamic Environments (MEDE) Fall Meeting October 13-14, 2016

Poster Guidance (for Consortium PIs)

The objectives of the poster session are to:

- Provide a forum to promote cross-CMRG and program-wide collaboration;
- Enhance the sharing of knowledge between the Consortium and ARL;
- Allow invited external agency personnel and MEDE leadership the opportunity to review the research tasks.

The 2016 MEDE tasks and their associated principal investigators (PI) are listed below.

TASK#	CMRG	CTRG	TASK TITLE	INSTITUTION	LEAD PI(s)
2016MetGroup1	Metals	MetGroup1	Defects Properties Within a Grain	Caltech	Bhattacharya (Group Lead), Ortiz
				WSU	Gupta
				JHU	El-Awady
2016MetGroup2	Metals	MetGroup2	Plasticity Across Multiple Grains	JHU	Hufnagel (Group Lead)
				JHU	Ramesh, Weihs
				Caltech	Ravichandran
				Caltech	Kochmann, Bhattacharya
				NMT	Kimberley
2016MetGroup3	Metals	MetGroup3	Void Dominated Failure	Caltech	Ortiz (Group Lead), Bhattacharya
				UTSA	Wilkerson
				JHU	Weihs
2016MetGroup4	Metals	MetGroup4	Thermal Mechanical Processing	JHU	Weihs (Group Lead), Hufnagel
				Caltech	Kochmann, Bhattacharya
				Rutgers	Haber, Domnich
2016CerEx2	Ceramics	Experimental	Characterization of Deformation Mechanisms and Amorphization in Boron Carbide	Rutgers	Haber, Domnich
2016CerEx4	Ceramics	Experimental	High-Rate Characterization, Granular flow and Amorphization in Boron Carbide Materials	JHU	Ramesh
2016CerEx5	Ceramics	Experimental	TEM and APT Characterization of Boron Carbide	JHU	Hemker
2016CerEx6	Ceramics	Experimental	Characterization of defects and in situ visualization of fracture in boron carbide	JHU	Hufnagel, Ramesh
2016CerMod8	Ceramics	Modeling	Extension of the First principles based ReaxFF multiscale simulation technology developed in MEDE-I to full scale multigrain and microalloying to optimize strength and ductility in MEDE-II	Caltech	Goddard
2016CerMod9	Ceramics	Modeling	Integrated multiscale physics-based modeling for dynamic deformation and dynamic failure of advanced ceramics	JHU	Daphalapurkar
2016CerMod10	Ceramics	Modeling	Crack coalescence, comminution and granular flow of highly damaged ceramics	JHU	Graham-Brady, Ramesh
2016CerPro1	Ceramics	Processing	Control of Inelastic Mechanisms in Boron Carbide Through Processing	Rutgers	Haber
2016ComEx1	Composites	Experimental	High Rate Test Methods for Interphase Characterization	Delaware	Gillespie, Haque
2016ComEx2	Composites	Experimental	Meso-Mechanical Modeling of Canonical Perforation Experiments	Delaware	Haque, Gillespie
2016ComEx3	Composites	Experimental	Characterization of Composite Materials	MSU	Aslan
2016ComEx4	Composites	Experimental	Real-time Damage Visualization in Polymers and Composites	Purdue	Chen
2016ComMod1	Composites	Modeling	Epoxy Molecular Simulations	Drexel	Abrams, Palmese
2016ComMod2	Composites	Modeling	Multi-Scale Modeling of Fiber-Matrix Interphase	Delaware	Gillespie, Chowdhury
2016ComMod3	Composites	Modeling	High Strain Fiber-matrix Interfacial Traction Laws	Delaware	Gillespie, Haque
2016ComMod4	Composites	Modeling	Multi-scale Modeling of Damage and Failure in Composites	JHU	Ghosh
2016ComMod5	Composites	Modeling	Micromechanical FE Modeling of Tensile Failure of Unidirectional Composites	Delaware	Gillespie
2016ComMod6	Composites	Modeling	Micro-Mechanical Modeling of Progressive Punch-Shear Behavior of Uni-Directional Composites	Delaware	Gillespie, Haque
2016ComPro2	Composites	Processing	Synthesis and Characterization of Interphases and Tows with Controlled Resin	Delaware	Advani, Yarlagadda
2016ComPro3	Composites	Processing	Synthesis of epoxy networks and interphases with controlled topology	Drexel	Palmese, Abrams
2016PolEx2	Polymers	Experimental	Characterization of Meso/Nanoscale Domains in UHMWPE Filaments	Delaware	Deitzel, Gillespie
2016PolEx3	Polymers	Experimental	Mapping "Defects" and Linking Failure modes at Multiple Length Scales in UHMWPE Filaments	Delaware	Deitzel, Gillespie
2016PolMod1	Polymers	Modeling	Modeling Polymer Deformation: Potentials and Methods	JHU	Robbins
2016PolMod3	Polymers	Modeling	Micromechanical model for the strength and failure behavior	JHU	Nguyen
2016PolMod4	Polymers	Modeling	Modeling and Experiments of High Performance Polymer Fibers Subjected to Transverse Compression Loading	Delaware	Gillespie
				Drexel	Alvarez, Palmese
2016PolPro1	Polymers	Processing	Fabrication and Processing	Delaware	Deitzel
2016Integ2	Integ-Comp.	Modeling	Probabilistic Modeling & UQ for computational models of composites	JHU	Graham-Brady, Shields
2016Integ3	Integ-All	NA	Data Science: Integration	JHU	Budavari
2016Integ4	Integ-Metals	Experimental	Novel DTEM Project	JHU	Weihs



Poster Guidance

- PIs for the ceramics, composites, polymers and integrated tasks should prepare one poster for each task.
 - The title of these posters should be the task title.
 - Poster file templates are available at:
<http://hemi.jhu.edu/cmede/home/news-and-events/cmede-fall-meeting/>
- For the PIs of the metals tasks, Tim Weihs and Laszlo Kecskes will provide specific instructions for these posters to include the appropriate poster titles
 - Poster file templates are available at:
<http://hemi.jhu.edu/cmede/home/news-and-events/cmede-fall-meeting/>
- For posters by the Army Research Laboratory personnel, John Beatty has provided specific guidance in an email dated, September 1, 2016

Poster Content and Admin

- Poster template files will be available at:
<http://hemi.jhu.edu/cmede/home/news-and-events/cmede-fall-meeting/>
- The poster template follows a similar format to the posters that were presented at the Research Management Board in January.
- Each PI or institution is responsible for printing their poster.
- Posters should not exceed 36" x 48" in dimensions.
- Poster tripod, backing board and clips will be provided on site.
- Each poster title needs to be registered on Eventbrite by only one contributor. To avoid duplication please coordinate with all authors prior to poster registration. The deadline to register is October 3, 2016.
- An electronic version of the poster (pdf file) will be required after the Fall Meeting. The file will be included as part of the MEDE annual report.