

Center of Excellence for Integrated Materials Modeling Review Meeting

May 1-2, 2014
 Sheraton Inner Harbor Hotel, Baltimore Maryland
 Loch Raven Room

May 1, 2014

8:30-8:40AM:	CEIMM Overview	S. Ghosh, CEIMM Director
8:40-8:50AM	Preliminary Comments	C. Woodward, T. Breitzman RX Program Managers
8:50-9:00AM	Preliminary Comments	F. Fahroo and A. Sayir AFOSR Program Managers
9:15 -10:45AM	Computational Micromechanics and Multi-Scale Modeling	Ghosh Group
9:15-9:35AM	Grain Scale Ni-Based Superalloy Modeling	G. Weber
9:35-10:00AM	Overview: Multi-scale modeling of Superalloys	S. Ghosh, <i>C. Woodward, D. Dimiduk</i>
10:00-10:20AM	PM Composites: RVE and Boundary Conditions	D. Kubair
10:20-10:45AM	Overview Failure in Polymer Matrix Composites	S. Ghosh <i>T. Breitzman</i>
11:00 -12:15AM	Material Characterization and Analysis	Pollock Group
11:00-11:30AM	Ni-Based Superalloys & PMC	W. Lenthe, (M. Echlin)
11:30-12:15PM	Overview: Tri Beam Tomography and characterization of superalloys and Polymer Matrix Composites	T. Pollock <i>M. Uchic, M. Groeber</i>
12:15 -1:30PM	Lunch on your own	
1:30 -2:30 PM	Uncertainty quantification methods with experimental data and computational models	Graham-Brady Group
1:30-1:55PM	Probabilistic characterization and stochastic simulation of 3D polycrystalline microstructures	K. Teferra
1:55-2:30PM	Overview: Uncertainty quantification:	L. Graham Brady, <i>M. Groeber</i>
2:30 -3:30PM	Discrete dislocations dynamics to discrete polymer chain-network dynamics modeling	El-Awady Group
2:30-2:55PM	Correlating Free-Volume Evolution to Plastic Deformation in Highly Cross-Linked Polymers from Large Scale Coarse-Grained Simulations	A. Aramoon
2:55-3:30PM	Discrete Network Dynamics: From Dislocation to Polymer Chains Simulations	J. El-Awady <i>C. Woodward, T. Breitzman</i>

3:30 -4:45PM	Imaging, Quantitative Characterization and experiments for model calibration	Sottos Group
3:30-4:10PM	Carbon Fiber/Epoxy Interfacial Properties Development of Tow-Level Characterization Experiments Measurement of local strains in composites under transverse loading conditions	C. Montgomery Amanda Jones
4:10-4:45PM	Overview: Microscale Experiments on Composites for Calibration and Validation	A. Wilhelmsen N. Sottos, <i>D. Mollenhauer</i>
4:45 -5:30PM	Discussions on Directions, Progress and Integrations	C. Woodward, T. Breitzman F. Fahroo and A. Sayir

6:00PM Dinner on your own

May 2, 2014

9:00 -10:15AM	Computational Micromechanics and Multi-Scale Modeling	Geubelle Group
9:00-9:35AM	Isogeometric IGFEM (IIGFEM) modeling of heterogeneous materials	M. Safdari
9:35-9:50AM	From micro-CTs to structured mesh generation for enriched finite element modeling	E. Caraba
9:50-10:15AM	Multi-scale modeling of PMCs: An overview	P. Geubelle <i>T. Breitzman, D. Mollenhauer</i>

10:15 -11:30AM	Micro-scale experiments for model calibration and validation	Hemker Group
10:15-10:35AM	Micro-mechanical characterization of Ni-base Superalloys	D. Eastman,
10:35-11:00AM	Micro-mechanical characterization of PMC's	J. Krogstad
11:00-11:30AM	Micro-scale experiments : An overview	K. Hemker <i>P. Shade</i>

11:45 -12:00PM Perspectives from the Advisory Board D. Furrer, P&W

12:15 -1:30PM Lunch on your own

1:30 -1:45PM Perspectives from the Advisory Board R. Barto, LM
1:45 -2:00PM Perspectives from the Advisory Board J. Zimmerman, Sandia

2:00 -3:00PM Closing Discussions and Summary S. Ghosh, C. Woodward, T. Breitzman

3:00 Adjourn