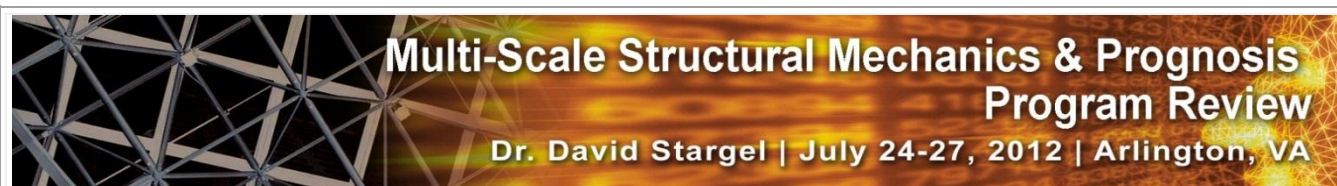


Agenda Day 1 – Tuesday, July 24th, 2012

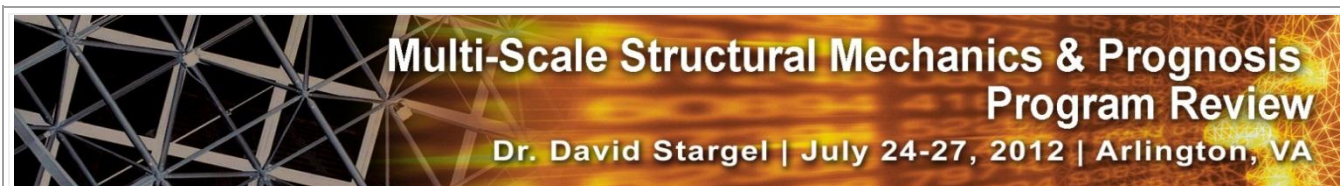
Time	Topic	Speaker
1200–1240	Registration	
Session I		
1240-1300	Introduction	David Stargel AFOSR/RSA
1300-1320	(MURI 09) Synthesis, Characterization and Modeling of Functionally Graded Multifunctional Hybrid Composites for Extreme Environments	Dimitris Lagoudas Texas A&M University
1320–1340	A Novel Probabilistic Multi-Scale Modeling and Sensing Framework for Fatigue Life Prediction of Aerospace Structures and Materials	Somnath Ghosh Johns Hopkins University
1340-1400	Modeling, Simulation and Sensing of Progressive Damage at Multiple Scales for Performance Prognosis in Metallic and Composite Aero Structures	Michael Sutton University of South Carolina
1400-1420	A New Multiscale Methodology for Evaluating Distributions of Residual Stress In Processed Aerospace Alloys	Matthew Miller Cornell University
1420-1440	Prognosis of Long-Term Load-Bearing Capability in Aerospace Structures - Quantification of Microstructurally Short Crack Growth	Tony Rollett Carnegie Mellon University Tony Ingrassia Cornell University
1440-1500	Break	
Session II		
1500-1520	Modeling and Analysis Tools for Nonlinear Mechanical Systems Subjected to Extreme Impulsive Loading	Andrew Dick Rice University
1520-1540	Nonstationary Structural Dynamics in High Shock Environments	Janet Wolfson AFRL/RW
1540-1600	Structural Dynamics of Membrane Structures using Hamilton's Weak Principle	Donald Kunz AFIT
1600-1620	Vibration Suppression Strategies for Large Tension-Aligned Array Structures	Ranjan Mukherjee Michigan State University
1620-1640	Tensioned Precision Structures	Thomas Murphey AFRL/RV
1640-1700	Peridynamic Modeling of Fracture and Failure of Materials	Erdogan Madenci University of Arizona
1700	Meeting Adjourned For The Day	



Agenda Day 2 – Wednesday, July 25th, 2012

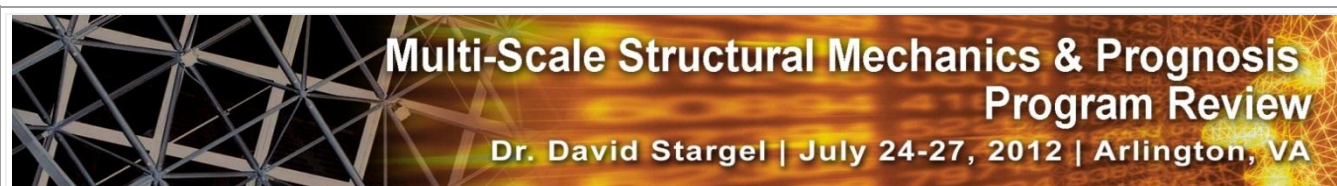
Time	Topic	Speaker
0800–0855	Registration	
Session III		
0855–0900	Introduction	David Stargel AFOSR/RSA
0900–0920	Quantifying Structural Variability for Improved Health Monitoring	Mark Derriso AFRL/RQ
0920–0940	Predictive Modeling of Structural Sensing for Aerospace Applications	Victor Giurgiutiu University of South Carolina
0940–1000	Structural Health Monitoring of Space Structures	Derek Doyle AFRL/RV
1000–1020	Adaptive Piezoelectric Circuitry Sensor Network with High-Frequency Harmonics Interrogation For Structural	Kon-Well Wang University of Michigan
1020–1040	Break	
Session IV		
1040–1100	Ultrathin SWCNT Films Enabled Multi-Modal Fiber Sensors	Tao Liu Florida State University
1100–1120	Simultaneous SHM/NDE Analysis of the Interacting Material & Structural Behaviors	Mark Blodgett and Jeremy Knopp AFRL/RX
1120–1140	(HBCU) - Research in Tailoring the Electrical Response of Composite Materials Using Carbon Nanotubes for Strain and Damage Sensing	Kalayu Belay Florida A&M University
1140–1200	(MURI 06) - A Multidisciplinary Approach to Health Monitoring and Materials Damage Prognosis	Aditi Chattopadhyay Arizona State University
1200–1300	Lunch	
1300–1400	* POSTER SESSION (see last page for listing)	
Session V		
1400–1420	Particulate Mechanics Meso-Scale Diagnostics	William Cooper AFRL/RW
1420–1440	Probabilistic Modeling of the Microstructurally Controlled Hierarchy of Fatigue	James Larsen AFRL/RX
1440–1500	Material Virtual Design: Fracture Parameters From Micro-To-Macro	David Mollenhauer AFRL/RX

1500-1520	Dislocation Simulations For Understanding Microstructure Sensitivity In Structural Alloys	Mike Uchic AFRL/RX
1520-1540	Break	
1540-1600	Prognosis of Composite Structures: Simultaneous SHM/NDE and Analysis of the Interacting Material and Structural Behaviors Under Long-Term In-Service Conditions	Richard Hall AFRL/RX
1600-1620	Meso-Scale Damage Quantification and Simulation in Energetic Materials	Mike Nixon AFRL/RW
1620-1640	Investigation of Fundamental Failure Mechanisms for Lifetime Management of Ceramic Matrix Composites	Randy Hay AFRL/RX
1640-1700	Towards a Physically-Based and Consistent Fracture Modeling Approach	Robert Dorgan and Derek Reding AFRL/RW
1700	Meeting Adjourned For the Day	



Agenda Day 3 – Thursday, July 26th, 2012

Time	Topic	Speaker
0830-0900	Registration	
0900-0920	Energy-Based Design of Reconfigurable MAV Flight Structures	Greg Reich and James Joo AFRL/RQ
0920-0940	Design, Fabrication and Testing of a Passively Morphing Ornithopter Wing for Increased Lift and Agility	James Hubbard University of Maryland Mary Frecker Penn State University
0940-1000	Expanding the Design Space of Flexible Flapping Wings	Peter Ifju University of Florida
1000-1020	Characterizing MAV Wings in Flight	Jonathan Black AFIT
1020-1040	BREAK	
1040-1100	(HBCU) - Development and Application of a Biologically Inspired Methodology for the Optimized, Multidisciplinary and Multi-Objective Design of Air Vehicles	Marcelo Kobayashi University of Hawaii
1100-1120	Multi-Stable Morphing Cellular Structures	Farhan Ghandi Penn State University
1120-1140	Photoresponsive Liquid Crystal Polymer Networks	Tim White AFRL/RX
1140-1200	(PECASE 08) - A Multi--Scale Framework for Multi--Field Analyses of Smart Composites	Anastasia Muliana TAMU
1200-1300	LUNCH	
1300-1320	Propagation of Uncertainty for Model Validation of Substructured Spacecraft	Daniel Kammer University of Wisconsin
1320-1340	Multiscale Reduced Order Modeling of Complex Multi-Bay Structures	Marc Mignolet Arizona State University
1340-1400	Modeling of Ultrasonic and Terahertz Radiations in Defective Tiles for Condition Monitoring of Thermal Protection Systems	Tribikram Kundu University of Arizona
1400-1420	Fundamental Advances in Inverse Mechanics towards Self-Aware and Intrinsically Adaptable Structural Systems	John Brigham University of Pittsburgh
1420-1430	Closing Remarks	David Stargel AFOSR/RSA
1430	MEETING ADJOURNED	



*** POSTER SESSION**

Wednesday, July 25, 2012
1300-1400

	Topic	Presenter
1	Structural Response Prediction for Reusable Hypersonic Platforms	Mike Spottswood AFRL/RB
2	(Yip-11) Substructuring with Nonlinear Subcomponent Models Based on Nonlinear Normal Modes with Application to Hypersonic Vehicle Design	Matt Allen University of Wisconsin
3	(Yip-11) Concurrent Structural Fatigue Damage Prognosis Under Uncertainty	Yong-Min Liu Clarkson University
4	Scientific Challenges Associated with Multi-Materials System with Adaptive Microstructures for Aerospace	Hamish Fraser Ohio State University
5	A Bayesian Experimental Design Approach for Optimization and Uncertainty Quantification in Aerospace Structural Modeling and Analysis	Michael Todd UCSD
6	Structural Dynamics of Cable-Harnessed Spacecraft Structures	Dan Inman Virginia Tech/U Michigan
7	Coming Attractions (Grants Just Starting)	
8	Damage Precursor Detection in Polymer Matrix Composites	Aditi Chattopadhyay Arizona State University
9	Quantifying Confidence in Model Predictions for Hypersonic Aircraft Structures	Benjamin Smarslok AFRL/RQ
10	(Yip 12)-A New Approach Towards Characterizing Microstructural	Samantha Daly University of Michigan
11	Quantifying Materials Uncertainty in Creep Deformation and Failure	Tschopp, Mark Mississippi State University
12	A Compliant Mechanism Synthesis Theory	Haijun Su Ohio State University
13	Effects of Damage Evolution on Polymer Nanocomposites	Gary Seidel Virginia Tech University
14	Performance Evaluation and Validation in Structural Health Monitoring Systems	Christine Schubert-Kabban AFIT
15	Loading Rate – Damage – Sensitivity Correlations In Explosives	George Sunny AFRL/RW
16	Mesoscale Modeling: Predictive Capability of the Dynamic Constitutive Response	Lalit Chhabildas AFRL/RW