



Wright Brothers Institute:  
 Tec^Edge Innovation & Collaboration Center  
 5000 Springfield St #100  
 Dayton, OH 45431

### Agenda Day 1 – July 18, 2016

Time	Title	Speaker
12:00-1:00	Registration	
1:00-1:30	<a href="#">Welcome/Opening Remarks</a>	Fillerup, James
1:30-2:00	<a href="#">A Cellworks Optimization Method for Air Vehicle Design</a>	Kobayashi, Marcelo University of Hawaii
2:00-2:30	<a href="#">The Analysis of Small Lighter than Air Vehicles</a>	Palazotto, Anthony AFIT
2:30-3:00	<a href="#">Multi-Resolution Non Local Metastructures for the Passive Control of Broadband Non-Stationary Dynamics in Thin Walled Structures</a>	Semperlotti, Fabio Purdue University
3:00-3:30	<b>BREAK</b>	
3:30-4:00	<a href="#">Multi-field Compliant Mechanisms of Adaptive Foldable Structures</a>	Muliana, Anastasia Texas A&M University
4:00-4:30	<a href="#">Design Synthesis for Direct Digital Fabrication of Hypersonic Systems</a>	Liu, David AFIT
4:30-5:00	<a href="#">Scaling of Wideband Deployable Antennas for CubeSats</a>	Pellegrino, Sergio California Institute of Technology
<b>MEETING ADJOURNED FOR THE DAY</b>		

## Agenda Day 2 – July 19, 2016

Time	Title	Speaker
8:00-8:30	<b>Registration</b>	
8:30-9:00	<a href="#">A Modular Meta-Structure Approach -- Creating A New Paradigm of High Performance Structural Systems Distributed Shape and Property Measurements of Adaptive Modular Structures</a>	Wang, Kon-Well, University of Michigan
9:00-9:30	<a href="#">Development of Component Mechanisms for Origami Inspired Designs</a>	Cho, Kyu-Jin Seoul National University, Korea
9:30-10:00	<a href="#">Composite Structure with Origami Core</a>	You, Zhong University of Oxford, UK
10:00-10:30	<b>BREAK</b>	
10:30-11:00	<a href="#">Adaptive Structural Vibrations for Multifaceted Motivity</a>	Tarazaga, Pablo Virginia Polytech Institute
11:00-11:30	<a href="#">Enhancing Durability and Mobility Through Optimized Plasticity</a>	Vermaak, Natasha Lehigh University
11:30-12:00	<a href="#">Spatially Distributed Compliant Passive Elements for Increased Agility of Flapping Wing Unmanned Air Vehicles</a>	Hubbard, James/Mary Frecker Maryland University
12:00- 1:00	<b>LUNCH</b>	
1:00-1:30	<a href="#">Variable Stiffness Wing Structures With Compliance For Aeroelastic Morphing</a>	Paolo Ermanni ETH, Zurich
1:30-2:00	<a href="#">Design and Development of Anisotropic Adaptive Materials</a>	Reich, Greg AFRL/Mat'ls and Manufacturing
2:00-2:30	<a href="#">Tailoring Piezoimpedance Surface and Configurations of Carbon Nanotube Yarn Sensors for Integrated Damage Detection in Composite Materials</a>	Belay, Kalayu Florida A&M University
2:30-3:00	<a href="#">Piezoelectric Sensor/Actuator for Aeronautical Structures Based PVdF-CN</a>	Avila, Antonio Fed. Univ. of Belo Horizonte, BR
3:00-3:30	<b>BREAK</b>	
3:30-4:00	<a href="#">Novel Photomechanical Fiber Structures</a>	Oates, William Florida State University
4:00-4:30	<a href="#">A Multi-Physics Approach to Validation of Failure Models in Extreme Thermoacoustic Environments</a>	Lambros, John Univ. of Illinois Champaign
4:30-5:00	<a href="#">Validation of Multi-physics Failure Models in Extreme Environments</a>	Patterson, Eann A. University of Liverpool
	<b>MEETING ADJOURNED FOR THE DAY</b>	

### Agenda Day 3 – July 20, 2016

Time	Title	Speaker
8:00-8:30	<b>Registration</b>	
8:30-9:00	<a href="#">Quantum Speedup for Turbulent Combustion Simulations</a>	Givi, Peyman University of Pittsburgh
9:00-9:30	<a href="#">Applications of Quantum Computing in Aerospace Science and Engineering</a>	Meyer, David / Peter Love UC San Diego / Tufts Physics
9:30-10:00	<a href="#">Response of Aerospace Materials to Shock Loading and Extreme Environments</a>	Shukla, Arun Univ. of Rhode Island
10:00-10:30	<b>BREAK</b>	
10:30-11:00	<a href="#">Nonlinear Dynamics and Global Stability of Aircraft Structures</a>	Stanciulescu, Ilinca Rice University
11:00-11:30	<a href="#">Multiscale-Multiphysics Computational Framework for Damage Prognosis</a>	Oskay, Caglar Vanderbilt University
11:30-12:00	<a href="#">A Microstructural Hierarchy Model for Uncertainty Reduction in Fatigue Life Prediction</a>	Pilchak, Adam AFRL/ Mat'ls and Manufacturing
12:00-12:15	<b>BREAK</b>	
12:15-12:45	Structural-Scale Life Prediction of Aero-Structures Experiencing Combined Extreme Environments	Penmetsa, Ravi AFRL/ Aerospace Systems
12:45-1:15	<a href="#">Continuous Real-Time State Monitoring in Highly Dynamic Environments</a>	Anton, Steven Tennessee Technology Univ.
1:15-1:30	Intro to AIR FORCE MUSEUM	Intro by Mike Spottswood AFRL/ Aerospace Systems
	<b>LUNCH</b>	
2:00-5:00	Site Visit: AIR FORCE MUSEUM	
	<b>MEETING ADJOURNED FOR THE DAY</b>	

## Agenda Day 4 – July 21, 2016

Time	Title	Speaker
8:00-8:30	<b>Registration</b>	
8:30-9:00	<a href="#">Structure-Scale Simulation and Experiments for Hypersonic Platforms</a>	Beberriss, Timothy AFRL/ Aerospace Systems
9:00-9:30	Structural Response Prediction for Reusable Hypersonic Platforms	Spottswood, Mike AFRL/ Aerospace Systems
9:30-10:00	<a href="#">Functional Mapping Approach to Incorporate Epistemic Uncertainty</a>	Mahadevan, Sankaran Vanderbilt University
10:00-10:30	<b>BREAK</b>	
10:30-11:00	<a href="#">3-D Multi-Scale Modeling Combined with Machine Learning for a Novel Structural-Prognosis Framework</a>	Spear, Ashley University of Utah
11:00-11:30	<a href="#">An Integrated Experimental-Numerical Framework for Study of Early Fatigue Damage</a>	Huang, Haiying University of Texas-Arlington
11:30-12:00	<a href="#">Identifying the Crack Driving Force Mechanism Through a Data-driven, Bayesian Analysis of Existing High Energy Diffraction Microscopy Experiments</a>	Sangid, Michael Purdue University
12:00-1:00	<b>LUNCH</b>	
1:00-1:30	<a href="#">Evolution of Sub-Grain Level Driving Forces for Microstructurally Small Crack Growth</a>	Musinski, William AFRL/ Mat'ls and Manufacturing
1:30-2:00	<a href="#">Intrinsic Scale Effects in the Deformation of Structural Materials</a>	Woodward, Christopher AFRL/ Mat'ls and Manufacturing
2:00-2:30	<a href="#">Development of Micro-scale Resonance Ultrasound Spectroscopy for High Spatial Resolution Measurement of Elastic Constants</a>	Shade, Paul AFRL/ Mat'ls and Manufacturing
2:30-3:00	<b>BREAK</b>	
3:00-3:30	<a href="#">A New Methodology for Determining Residual Stresses in Processed Polycrystals with Design Level Fidelity</a>	Miller, Matt / Beaudion Armand Cornell University
3:30-4:00	<a href="#">The Effect of High Altitude Environments on the Dislocation Structure Evolution During Fatigue Cracking of Legacy and Next Generation Aerospace Aluminum Alloys</a>	Burns, James University of Virginia
4:00-4:30	<a href="#">Image-Based Modeling of Polycrystalline Metallic Materials</a>	Ghosh, Somnath Johns Hopkins University
	<b>MEETING ADJOURNED</b>	

## Agenda Day 5 – July 22, 2016

Time	Title	Speaker
8:00-8:30	<b>Registration</b>	
8:30-9:00	<a href="#">MURI Center for Material Failure Prediction through Peridynamics</a>	Madenci, Erdogan Arizona University
9:00-9:30	<a href="#">Hierarchically-Driven Approach for Quantifying Fatigue Crack Initiation</a>	Solanki, Kiran Arizona State Univeristy
9:30-10:00	<a href="#">Progressive Damage Prediction Techniques for Composite HALE Aircraft Wings</a>	Hodges, Dewey George Tech
10:00-10:30	<b>BREAK</b>	
10:30-11:00	<a href="#">A Novel Multiscale Design of Interfaces for Polymeric Composites and Bonded Joints using Additive Manufacturing</a>	Prabhakar, Pavana University of Texas-El Paso
11:00-11:30	<a href="#">Representative Structural Element: A New Paradigm</a>	Liu, Ling/ Yu, Wenbin Utah State Univ./ Purdue
11:30-12:00	<a href="#">Extreme-Value Processing-Microstructure-Property Relationships in SiC/SiC Ceramics</a>	Przybyla, Craig AFRL/ Mat'ls and Manufacturing
12:00-2:00	<b>REVIEW ENDS / BREAK ADVISORY COMMITTEE</b>	