

## **2008 AFRL/DAGSI Awards**

### **RB (Air Vehicles, VA)**

Topic VA08-13, Katona and Shukla (Miami), Design of Durable Aerospace Structures for Combined Extreme Environments

Topic VA08-13, Alpert and Qian (UC), Advancing Space-Time FEM Method for Studying the Nonlinear Responses of Low-Dimensional Structural Components under Extreme Environments

Topic VA08-7, Kuhn and Soni (AFIT), Optimization of Z-Pinning Volume Fraction in Joints for Structural Integrity

Topic VA08-11, Turan and Canfield (AFIT), Tools for Conceptual Design and Engineering Analysis of Micro Air Vehicles

Topic VA08-5, Cummings and Wolff (WSU), A Systems Engineering and Design Optimization Approach to Aircraft Thermal Management

### **RH (Human Effectiveness, HE)**

Topic HE08-5, Maurer and Mukhopadhyay (WSU): Nanoengineering of Microcellular Carbon Foam for Biocompatibility, Studies of Bone Cell Growth

Topic HE08-5, Smith and Guliants (UD): Novel Nano-energetic Materials and their Biological Relevance

### **RX (Materials and Manufacturing, ML)**

Topic ML08-2, Kusters and Donaldson (UD), Bio-inspired, Multi-functional Hybrid Material Systems

Topic ML08-4, Zhu and Dai (UD), Nanostructured Materials for Tailored Thermal Conductivity Interfaces

### **RY (Sensors, SN)**

Topic SN08-18, Horchler and Quinn (CWRU), Intelligent Sensing and Control for Autonomous Vehicles

Topic SN08-3, Alqadah and Fan (UC), Radar Signal Decomposition

Topic SN08-3, Lee-Elkin and Potter (OSU), Radar Signal Decomposition

Topic SN08-8, Henson and Sheth (WSU), Architectures for Secure Semantic Sensor Networks for Multi-Layered Sensing

Topic SN08-8, Pschorr and Thirunarayan (WSU), Architectures for Secure Semantic Sensor Networks for Multi-Layered Sensing

Topic SN08-6, Hartley, Catalyurek and Ozguner (OSU), High-Performance Radar Signal Processing using Emerging Architectures

Topic SN08-9, Murawski and Ekici (OSU), Cognitive Network-Based Adaptive Cross-Layer (COGNAC) Protocol Design and Evaluation

Topic SN08-10, Graessle and Cheng (Miami), Method for Porting Signal Processing and Waveform Analysis Algorithms from MATLAB Code to FPGA Hardware

Topic SN08-28, Charney and Morton (Miami), High Accuracy GPS Receiver Algorithms for Navigation

## **RZ (Propulsion, PR)**

Topic PR08-08, Granger and Sawyer (U. Akron), A Proposal for the Development of the FSI Code

Topic PR08-08, Meier and Slater (WSU), Crack Detection in Blades using Random Decrement Signatures from Experimental Data

Topic PR08-08, Baudendistel and Klingbeil (WSU), Effect of a Graded Layer on the Plastic Dissipation during Mixed-Mode Fatigue Crack Growth on Bimaterial Surfaces

Topic PR08-10, Black and Murray (UD), Longer Length Carbon Nanotubes for Electric Power Applications

Topic PR08-3, Barone and Jeng (UC), In-situ Characterization of Combuster Performance in Supersonic Flows using Laser-Based Diagnostics

Topic PR08-5, Milligan and Wolff (WSU), Design and Analysis of a Variable Geometry Scramjet Flowpath for Space Access Applications

