

SPRING 2006 AME UNDERGRADUATE RESEARCH CONFERENCE

May 5, 2006

2:00 to 5:00 pm

DeBartolo Hall

Rooms 244, 245 and 246

TIME	SESSION A AERODYNAMICS ROOM 244 Session Chair: Paul Slaboch	SESSION B SOLIDS ROOM 245 Session Chair: Micah Rogel	SESSION C DESIGN and CONTROLS ROOM 246 Session Chair: Gabe Converse
2:00	Kevin Bricker: "Pressure Sensor Probe Design and Calibration"	Matthew Lovell: "Material Properties for Intervertebral Disc"	David Lettieri: "Topology Optimization of Aeroelastic Airfoil"
2:15	Nicholas Saldivar: "Exploring the Characteristics of Flapping-Wing Aerodynamics"	Alex Pelkey: "The Response of Osteoblasts to Hydroxyapatite Morphology in Vitro"	Jesse Batsche: "Vision Based Robotic Control Systems"
2:30	Benjamin Chupp: "Flow Control Through Passive and Active Methods"	John Floccari: "Viscoelastic Finite Element Modelling of Laminated Steel"	Donny Tillotson: "Hybrid Cellular Automata for Topology Optimization"
2:45	Scott Manwaring: "POD Reconstruction of Incomplete Vector Fields in Turbulent Flows"	Robert Kane: "Fatigue Properties of Hydroxyapatite Reinforced Polymers in Four-Point Bending"	Shenwei Zhu: "Laser Spot Matching in Camera Spaces"
3:00	Esther Reyes: "Single Dielectric Barrier Discharge Plasma Actuators and the Lumped-Element Circuit Model"	Elizabeth Barron: "Microdamage in Distribution in Trabecular Bone Test Specimens"	
3:15	BREAK – Room 232	BREAK – Room 232	BREAK – Room 232
	SESSION D AERODYNAMICS ROOM 244 Session Chair: Anthony Costantino	SESSION E THERMODYNAMICS and FLUIDS ROOM 245 Session Chair: Jason Mayes	SESSION F POWER SYSTEMS and REFRIGERATION ROOM 246 Session Chair: Craig Goehler
3:45	Billy Gallagher: "Vibrations in Fluid Loaded Thin Membranes"	Nicole Del Rey: "Thermal Characterization of Thin Copper Film"	Bradley Shervheim: "High Performance Rotary Engine Development"
4:00	Mike McConnell: "Acoustic Phased Array Testing"	Matthew Wilkinson: "Finite Element Analysis of Nanochip Temperature Variation"	Eric Sabelhaus: "Potential Efficiency Improvements to Intergrated Gasification Combined Cycles(IGCC)"
4:15	Anthony Dominguez: "Blade-Disc Attachment in Low Power Turbine"	Stepan Starchenko: "Materials on the International Space Station"	Blake Shelide: "Study of Ionic Liquid Applications in Absorption Refrigeration"
4:30	Mark Ross: "Computational Study of Strategies to Mitigate Upstream Influence of a Strut in an Axial Compressor"	Michael Wolfe: "Modeling of Thermal Conductivity of Thin Single Crystal SOI Layers"	Sarah Gelwicks: "Theory of Thermal Conductivity Measurements of Ionic Liquids"