

## 1994 BEST STUDENT PAPER AWARDS

### AERONAUTICAL AND AEROSPACE SCIENCES

**Michelle T. Martuccio** (co-recipient)

George Washington University, Joint Institute for the Advancement of Flight Science, NASA-Langley Research Center. A Wind Tunnel Investigation of the Effects of Micro-Vortex Generators on the High-Lift Characteristics of a Business Jet Wing.

**Jennifer L. Burt** (co-recipient)

Flight Deck Research Branch, NASA-Langley Research Center. An Evaluation of the Perceived Urgency of Auditory Warning Signals.

### AGRICULTURE, FORESTRY, AND AQUACULTURE

**T. C. Muller**

Dept. of Biology, Virginia Commonwealth University. Assessing Temporal and Spatial Genetic Variation Within American Shad (*Alosa sapidissima*) Populations of Chesapeake Bay Rivers.

### ARCHAEOLOGY

**Ronald W. Fuchs II**

Dept. of Anthropology, College of William and Mary. Archaeological Investigations at a Late Woodland/Early Colonial Site in Gloucester County, Virginia.

### ASTRONOMY, MATHEMATICS, AND PHYSICS

**J. T. Seo**

Dept. of Physics, Hampton University. Discharge Circuit Improvement for Hard-Core Flashlamp Blue-Laser System.

### BIOLOGY

**Hope S. Thompson** (for oral presentation)

Dept. of Biology, Randolph-Macon College. Effect of Prenatal Exposure to Levo-Norgestrel or Ethenyl Estradiol and Norethindrone on Testis Development in CD-1 Mice.

**Oliver Bauer** (for poster presentation)

Dept. of Biology, Shenandoah University, Comparison of Wing Morphology of Bats on Dominica.

### BOTANY

**Philip M. Sheridan**

Dept. of Biology, Virginia Commonwealth University. Genetics of Aberrant *Sarracenia* Leaf and Flower Color.

## EDUCATION

**Beatrice Taylor**

Depts. of Education and Biology, Virginia Polytechnic Institute and State University. Perspectives on Collaboration in an STS Landfill Restoration Project: Scientist, Classroom Teacher, and Researcher.

## ENVIRONMENTAL SCIENCE

**Kelly M. Alexander**

Dept. of Biology, Chemistry, and Environmental Science, Christopher Newport University. Methane Emissions Associated with *Sagittaria graminea* Michx., Arrowhead, under Enriched Atmospheric CO<sub>2</sub>.

## GEOGRAPHY

**Amy B. Cohen and Dominic Pisciotta** (co-recipients)

Dept. of Geology and Geography, James Madison University.

Spatial Distribution of Hispanics in the City of Harrisonburg, Virginia.

## GEOLOGY

**Anita A. Williams**

Dept. of Geography and Earth Systems Science, George Mason University. Sediments of Gunston Cove, Potomac River, Virginia.

## MATERIALS SCIENCE

**Kevin C. Stewart**

Dept. of Materials Science, University of Virginia. Modelling of Crevice Chemistry.

## PSYCHOLOGY

**Kathryn J. Karageorge**

Dept. of Psychology, College of William and Mary. Sexual Assault and Its Impact on Relationship Patterns: A Developmental Approach.

## STATISTICS

**Milan Mangeshkar**

Dept. of Statistics, Virginia Polytechnic Institute and State University. A Procedure for Estimation of Partial Group Delay.

## HONORABLE MENTIONS

## AERONAUTICAL AND AEROSPACE SCIENCES

**Wayne D. Carlsen**

George Washington University, Joint Institute for the Advancement of Flight Sciences NASA-Langley Research Center. Comparison of USM3D and Experiment: How Well Does an Euler Code Predict Transonic Drag Rise?

**Christine Schleicher**

Dept. of Aerospace Engineering, Old Dominion University. Application of a Higher-Order Theory to Orthotropic and Laminated Beams.

## ARCHAEOLOGY

**Suanna C. Selby**

Archaeology Department, Mount Vernon Ladies' Association, Mount Vernon, VA 22121. The Dogue Run Survey: Searching for George Washington's Sixteen-sided Barn.

## ASTRONOMY, MATHEMATICS, AND PHYSICS

**Richard G. Grant**

Department of Physics, Old Dominion University. Identification of the Iron-Zinc Phases in Commercially Produced Galvannealed Steel.

**Tae H. Kimn**

Department of Physics, Old Dominion University. Mossbauer and X-Ray Study of the Iron Nitride, Fe<sub>4</sub>N.

## BOTANY

**Kathryn S. Tolliver**

Dept. of Biology, Virginia Commonwealth University. Potential Allelopathic Effects of *Myrica cerifera* on *Pinus taeda*.

**David Seaborn**

Dept. of Biological Sciences, Old Dominion University. Annual Phytoplankton Dynamics in the Pagan River, Virginia.

## EDUCATION

**Kenneth Lawwill**

Fairfax County Schools, Chantilly High School. Encouraging Question Asking and Writing in the Science Classroom.

## ENVIRONMENTAL SCIENCE

**Keitha M. Dattilo**

Biology Department, Mary Washington College. Isoiation of Kerosene-Degrading Bacteria from Kerosene-Contaminated Soil.

**Donald Morgan**

Biology Department, George Mason University. Effects of Watershed Urbanization on Stream Fish Communities in Prince William County, Virginia.

**GEOGRAPHY****Matthew J. Humke**

Dept. of Geology and Geography, James Madison University. Environmental Assessment of the Riparian Zone of the South Fork of the Shenandoah River, Va.

**GEOLOGY****Roger Decker**

Dept. of Geology and Geography, James Maddison University. Hydraulic Conductivity and Retention of Hydrocarbon Fuel in Soils.

**Patricia I. Autrey**

Dept. of Geology, College of William and Mary. Hydrogeochemistry of Traver-tine Deposition at Burwell's Bay in Isle of Wight County, Virginia.

**MATERIALS SCIENCE****Martin H. Ettenberg**

Dept. of Materials Science, University of Virginia. Characterization of Ohmic Contact Solders to High Performance Thermoelectric Materials for Cooling Applications.

**PSYCHOLOGY****Lawrence J. Prinzel III**

Dept. of Psychology, Old Dominion University. Intrahemispheric Interference of Emotional Stimuli as a Function of Hand Use, Gender, Ear of Input, and Task Complexity Across Motor and Cognitive Tasks.

**Douglas M. Kaufman**

Dept. of Psychology, Washington and Lee University. Implicit and Explicit Memory in Children.

**Monica A. Rickard**

Dept. of Psychology, Old Dominion University. Goal Setting and Self-Efficacy in Amateur Athletes.