

# Appalachian Remote Sensing Conference

Mountainlair, West Virginia University, Morgantown, WV  
May 14, 2003

## Conference at a glance

8:30	<b>Registration</b>	Outside Rhododendron Room
9:00	<b>Keynote address</b>	Rhododendron Room
9:50	<b>Break &amp; Posters</b>	Mountaineer Room
10:10	<b>Paper Session 1</b>	Rhododendron Room
11:55	<b>Lunch</b>	Hatfields
1:15	<b>Paper Session 2</b>	Rhododendron Room
3:00	<b>Break &amp; Posters</b>	Mountaineer Room
3:20	<b>Paper Session 3</b>	Rhododendron Room
5:05	<b>Closing remarks</b>	Rhododendron Room
5:15	<b>Conference ends</b>	

## Posters

### **Mountaineer Room (9:50-10:10 and 3:00-3:20)**

*Land Cover Mapping in an Urban Setting: The integration of IKONOS imagery, image segmentation, and decision trees.*

**Tom Miewald**, Canaan Valley Institute, **Drannon Buskirk**, Paxton Creek Watershed Association, and **Janette Bennett**, Canaan Valley Institute.

*The Application of Remotely Sensed Imagery in Archaeological and Historical GIS.*

**Susan Bergeron**, and **L. Jesse Rouse**, Department of Geology and Geography, WVU.

*Using Remote Sensing to Enhance Science Education in West Virginia Middle Schools.*

**Michael Ferber**, Department of Geology & Geography, WVU.

*Analysis of the Urban Forest Structure of Morgantown, WV: Role of Remote Sensing in Sampling.*

**Sandhya Mohan and Jonathan R. Cumming**, Department of Biology, WVU.

*Integrating Digital Ortho Quad Quadrangle and Interactive Geo-Visualization for Transportation Decision-Making: A case study of the Appalachian Corridor H transportation development project, West Virginia.*

**Ram Alagan**, Department of Geology and Geography, WVU

*Evaluation of Airborne Thermal Infrared Imagery for Locating Mine Drainage Sites in the Lower Kettle Creek and Cooks Run Basins, Pennsylvania, USA.*

**Garret A. Veloski**, NETL, US DOE, and **James I Sams III**, USGS, Water Resources Discipline.

## Schedule

### **8:30 Registration: Outside Rhododendron Room**

### **9:00 Welcome and Keynote Address: Rhododendron Room**

9:00 *Welcome and introduction of Key note speaker.*  
**M. Duane Nellis**, Dean, Eberly College of Arts and Sciences, West Virginia University.

9:10 *Keynote address. Remote Sensing and Geospatial sciences in service of society.*  
**Kamlesh Lulla**, NASA.

### **9:50 Mountaineer Room: Tea and Coffee Break & Posters**

### **10:10 Paper Session 1: Rhododendron Room**

10:10 *West Virginia View: A state remote sensing consortium within the AmericaView Program.*  
**Timothy Warner**, Department of Geology and Geography, **M. Duane Nellis**, Eberly College of Arts and Sciences & Department of Geology and Geography, **and Paddington Hodza**, Department of Geology and Geography, WVU

10:25 *Censusing and modeling the dynamics of a population of Eastern Hemlock (*Tsuga canadensis*) using remote sensing.*  
**W. Robert Lamar and James McGraw**, Department of Biology, WVU.

10:40 *Remote Census of *Ailanthus altissima* (tree of heaven) in West Virginia Using High Spatial Resolution Color Imagery.*  
**Rick Landenberger**, Department of Biology, WVU.

10:55 *Remote sensing of forest evergreen understory communities in the central Appalachian highlands.*  
**Robert Chastain**, University of Maryland Center for Environmental Science, Appalachian Laboratory.

11:10 *Satellite Imagery Classification with ER Mapper in the Mountains of Kyrgyz Republic.*  
**Galina N. Fet, and James O. Brumfield**, Geobiophysical Modeling Program, Marshall University.

11:25 *Using Landsat imagery and FIA data in an original approach to map and describe forest dynamics in south-central Pennsylvania.*  
**Clay Baros and Phil Townsend**, University of Maryland Center for Environmental Science, Appalachian Laboratory.

11:40 *The use of remotely sensed data in the Exploring the Environment online curriculum series.*  
**Cassie Doty**, Center for Educational Technologies.

**11:55 Lunch. Hatfields Restaurant (First floor of the Mountainlair). Southwest chicken and beef fajitas buffet & desert. (Included in conference registration).**

**1:15 Paper session 2. Rhododendron Room**

1:15 *Mountain Top Removal Identification and Change Detection Using Remote Sensing Techniques.*

**Ryan Langford**, The Project for Appalachian Community and Environment 'PACE' & Geography Department, Appalachian State University, **Eric Woolridge**, The Project for Appalachian Community and Environment 'PACE,' and **Jamie Robertson**, The Project for Appalachian Community and Environment 'PACE' & Geography Department, Appalachian State University.

1:30 *Evaluation of Airborne Thermal Infrared Imagery for Locating Mine Drainage Sites in the Lower Kettle Creek and Cooks Run Basins, Pennsylvania, USA.*

**Garret A. Veloski**, NETL, US DOE, and **James I Sams III**, USGS, Water Resources Discipline.

1:45 *High- resolution digital imagery for mining impact assessment studies in the central Appalachians.*

**Charles B Yuill**, Davis College of Agriculture, Forestry and Consumer Sciences, WVU.

2:00 *Space Borne and Aerial Image Basemap Selection for a Geospatial Representation of the GPS collected for Abandoned Mine Inventory of the Monongahela National Forest.*

**John R. Ferguson II**, U.S. Army Corps of Engineers and **James O. Brumfield**, Department of Biological Science, Marshall University.

2:15 *Relative Efficiency of Adaptive Filters in Suppressing Noise and Preserving Sharpness in Multi-Spectral Images.*

**Shivaji Prasad**, Department of Geography, Frostburg State University.

2:30 *Exploring the Linkage between Water Chemistry and Land Cover in Deckers Creek, 1974 – 1999.*

**Qingyun Sun** and **Trevor Harris**, Department of Geology and Geography, WVU.

2:45 *ARSHUS (Airborne Remote Sensing of Hydrologic Systems Under Stress).*

**Paige Baldassaro**, **John Spadaro**, **Dorene Dixon**, and **Joe Gardner**. Institute for Scientific Research, Inc., Fairmont. WV.

**3:00 Mountaineer Room: Tea and Coffee Break & Posters**

**3:20 Paper Session 3: Rhododendron Room**

- 3:20 *Integration of the Image Based Web Server and Crime Scene Mapping on Transportation Routes.*  
**Sang H. Yoo**, Graduate Geobiophysical Modeling Program, Marshall University, **Juan D. Barrios**, Nick J. Rahall Appalachian Transportation Institute, **Sean Litteral**, Nick J. Rahall Appalachian Transportation Institute, **Graham Rankin** (Forensic Science Program, Marshall University, and **James Brumfield**, Biological Sciences, Physical Sciences and Geobiophysical Modeling, Marshall University.
- 3:35 *A comparison of change detection techniques for monitoring land-cover change in an arid urban environment.*  
**Abdullah Almutairi**, Department of Geology and Geography, WVU.
- 3:50 *Remote Sensing of Historic Landscapes: A Case Study of The National Road near Wheeling, West Virginia.*  
**Brian Renzella**, Department of Geology and Geography & Institute for the History of Technology and Industrial Archaeology, WVU.
- 4:05 *The History of Presque Isle and the City of Erie, Pennsylvania: A Remote Sensing Case Study.*  
**Chris Schaney**, Department of Geology and Geography, WVU.
- 4:20 *An Evaluation of LIDAR Accuracy for Three West Virginia Watersheds.* **Michael Shank**, TAGIS, West Virginia Department of Environmental Protection.
- 4:35 *Enhancing GIS and LIDAR data through Virtual Reality.*  
**Trevor M. Harris**, Department of Geology and Geography, WVU, **Vic Baker**, West Virginia Virtual Environments Laboratory, WVU, **L. Jesse Rouse**, Department of Geology and Geography, WVU, and **Adam Horne**, West Virginia Virtual Environments Laboratory, WVU.
- 4:50 *Identification of individual trees in leaf-off, small footprint lidar data.*  
**Timothy Warner**, Department of Geology and Geography, WVU, **Tomas Brandtberg**, Department of Geology and Geography, WVU, **James McGraw**, Department of Biology, WVU, and **Rick Landenberger**, Department of Biology, WVU.

**5:05 Closing Remarks: Rhododendron Room**