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17th Symposium on Education

P1.21

Demand on online weather and atmosphere courses offered by CSUN

Gong-Yuh Lin, California State Univ., Northridge, CA

At California State University, Northridge, the online teaching program began in fall 1999 with 8 GE courses offered. In order to encourage faculty members to be engaged in teaching GE online courses, the University's Office of Online Instruction offered webct workshops every semester. An estimate of more than 700 faculty members have attended the workshops during the past eight years. The workshop covered the topics of creating Homepage, Image Database, Content Modules, Quiz, Bulletinboard, and Chatroom using WebCT software. The university provided an incentive program awarding faculty members who teach a GE online course the first time with a stipend of \$2,000. The stipend had been reduced to \$1,000 subsequently and phased out last year (2006) due to the increasing number of online courses offered. In Spring 2007, the Office of Online Instruction awarded more than 20 faculty members with a stipend of \$500 each for their attendances at four series of workshops aiming at improving fully online teaching skills such as using Podcasting and Eluminate programs for more dynamic course presentation. The purpose of the university's online teaching policy is to accelerate the rate of graduation for undergraduate students. As a result, the university fully online courses have increased from 8 courses in 1999 to 116 courses in Fall 2007. A total of 7 fully online weather-related courses are listed in the University's fully online schedule for fall 2007. More than 700 faculty members have their course WebPages and about 23,000 students have their online course accounts at the present time.

The author began to teach a fully online atmosphere course (Geography 311) in fall 2003. So far, the author has developed 4 completely online courses: Weather (Geography 103), Atmosphere, Air Pollution (Geography 415), and Boundary-layer Climatology (Geography 412). Weather course fulfills lower-division GE science requirement whereas Atmosphere course fulfills upper-division GE science requirement. Air Pollution and Boundary-layer Climatology meet the major's requirement. All GE classes that the author offered reached full enrollment within a few days of the opening of registration. In fall 2007, fully online Weather and Atmosphere Laboratory Courses (Geography 105OL and Geography 311LOL) are offered the first time to meet the new GE science laboratory requirements. Exercises in Weather Studies Investigation Manual published by AMS were uploaded to Weather Laboratory course (Geography 105OL) website using Respondus software. Fifteen exercises were placed in Quizzes (exercises) and Assignments tools. Students are expected to complete one exercise in Quizzes tool each week. For those exercises and questions that require drawings such as isobars, isotherms, and station plots are placed in the Assignments tool. The data

sheet obtained from the AMS Weather Studies website can be downloaded to a student's computer desktop. Mappings are achieved by using PC Paint program, photoshop, or other graphic software available to students. The completed maps are then uploaded to the Assignments tool for instructor's evaluation. The Assignments tool provides figures, tables, and exercise-related materials in addition to the instruction of completing questions in Quizzes tool. Course grades are determined by 3 examinations placed in the Quizzes tool. The similar method is used to create fully online atmosphere laboratory (Geography 311LOL) website with a different textbook and the accompanied laboratory manual.

The demand data for online and inclass courses for the period from spring semester 2004 through fall semester 2006 are available from the University's Institutional Research. Demand data (Dnmd) refer to the unduplicated count of regular qualified students that attempted to enroll in a course but were unable to. The Demand unmet (Unmet) data are defined as students in demand that are still unable to enroll in a course. Both Dnmd and Unmet data show consistently higher numbers semester after semester for online courses than their counterpart inclass courses. The strong demand for online courses may be attributable to two facts: (1) students are highly interested in taking online courses; and (2) fewer online sections are offered than inclass sections for the same course. It is foreseeable that offering more class sections should reduce the course demand. It was notable that In Fall Semesters of 2004 and 2005, two Atmosphere online sections (Geography 311OL) were offered whereas only one inclass section was offered. This is reflected by an almost double enrollment in online course than in inclass course. However, the demand and unmet data still show a much higher value for online course than for inclass course. Hence, it may be concluded that students are indeed highly interested in taking online courses.

The average demand enrollment is 77 students per semester for online Atmosphere course (Geography 311OL) and 6 students per semester for inclass course (Geography 311). For Weather course (Geography 103), the average demand enrollment is 85 students per semester for online course against 50 students per semester for inclass course. Unlike inclass Geography 311, inclass Geography 103 has a strong demand. It appears that 2 additional class sections can be opened for both online Atmosphere and Weather courses assuming the enrollments are 40 students per class. One additional inclass section is needed for Weather course (Geography 103). The demand data are useful for a chairperson to plan the number of classes to be offered for a given course.

The official class sizes vary from 40 students per class for Weather course to 30 students per class for Atmosphere course. The instructor increased each class size substantially to meet student demand. The average class student drop rate is about 15% for fall 2006. There is a large variation in the drop rate from class to class.

The online Ocean Studies course can be developed in the same manner as the online weather and atmosphere courses at CSUN. However, it is required the approval of Geology Department and the Education Policy Committee through the normal course development cycle. The oceanography course is offered by Geology Department

instead of Geography Department. The author is planning to contact the instructor who teaches oceanography for online course development and provides needed assistance.

 [Extended Abstract \(228K\)](#) Please click on me (PDF icon) to open it for figures.


[Poster Session 1, Educational Initiatives Poster Session](#)
Sunday, 20 January 2008, 5:30 PM-7:00 PM, Exhibit Hall B

[Previous paper](#) [Next paper](#)

[Browse or search entire meeting](#)

[AMS Home Page](#)

17th Symposium on Education (Expanded View)

*  - Indicates paper has been withdrawn from meeting

Program Chairpersons:
David R. Smith, United States Naval Academy
Rajul E. Pandya, UCAR/DLESE

[Compact View of Conference](#)

Sunday, 20 January 2008


7:30 AM-9:30 AM, Sunday 2008
Short Course Registration

9:00 AM-6:00 PM, Sunday 2008
Conference Registration

12:00 PM-4:00 PM, Sunday 2008, Exhibit Hall B
7th Annual WeatherFest

5:30 PM-7:00 PM, Sunday 2008, Exhibit Hall B
[Poster Session 1 Educational Initiatives Poster Session](#)

Cochairs: Kathleen A. Murphy, AMS Education Resource Educator, St. Louis, MO; Marianne J. Hayes, AMS Education Resource Educator, Columbus, OH

- P1.1 [New NOAA-NWS Education Products](#)
Ron Gird, NOAA/NWS, Silver Spring, MD
- P1.2 [Clustering key concepts when teaching Oceanography online](#)
Horacio Ferriz, California State Univ., Turlock, CA
- P1.3 [Visualizing the environment: processing data and imagery to produce effective communication and education tools](#) 
Daniel P. Pisut, I.M. Systems Group, Silver Spring, MD; and A. Powell, T. Loomis, and M. Pulliam

- P1.4 [Weather Break: meteorological outreach, university recruiting, and improvement of student communication skills via a radio program](#)
Jon M. Schrage, Creighton Univ., Omaha, NE
-  P1.5 [An Online Oceanography Studies Experience in Conjunction with TESSE and GAMEP Programs at Dillard University During Spring 2008](#)
Abdalla Darwish, Dillard Univ., New Orleans, LA
- P1.6 [Rewriting an earth systems science course at Gallaudet University](#)
Henry David Snyder, Gallaudet Univ., Washington, DC
- P1.7 [Fostering GK-12 International Activities between U.S. and Senegal Middle Schools](#)
Tamara L. Battle, Howard Univ., Washington, DC; and J. Perrella, M. Alfred, and G. S. Jenkins
- P1.8 [Oceanography on the High Plains of Texas \(Wayland Baptist University\)](#)
Tim R. Walsh, Wayland Baptist Univ., Plainview, TX; and M. Bryan
- P1.9 [Using Online Ocean Studies to Chart a New Course in Science Teacher Education](#)
Julie Lambert, Florida Atlantic Univ., Key Biscayne, FL; and J. Hargis
- P1.10 [Online weather at Gavilan in 2007](#)
Andrew H. Van Tuyl, Gavilan College, Gilroy, CA
-  P1.11 [Online Ocean Studies brings the sea to the Mid-Continent USA](#)
Virginia M. Ragan, Metropolitan Community College, Kansas City, MO
- P1.12 [Status of the Online Oceanography Course at California State University, Los Angeles](#) 
Pedro Ramirez, California State Univ., Los Angeles, CA; and S. LaDochy
- P1.13 [Teaching the course of Online Ocean Studies at Houston Community College System, Southeast College](#)
Cheng Ting, Southeast College, Houston, TX
- P1.14 [Integrating OWS materials into an existing introductory meteorology class](#)
Meredith L. Leonard, Los Angeles Valley College, Los Angeles, CA
- P1.17 [Introduction of Online Ocean Studies to New Mexico Junior College](#)
Roene Neu, New Mexico Junior College, Hobbs, NM
-  P1.15 [Initial progress in three-stage plan to implement On-line Ocean Studies at New Jersey City University](#)
John M. O'Brien, New Jersey City Univ., Jersey City, NY
-  P1.16 [Online Weather Studies for the Millennial Generation](#)
Erik N. Christensen, South Florida Community College, Avon Park, FL
- P1.18 [An oceanography course to enhance earth sciences offerings at an HBCU](#)
David Padgett, Tennessee State Univ., Nashville, TN
- P1.19 [The use of near real-time data for research and teaching at an HSI: leveling the playing field](#) 
LeeAnne Martínez, Colorado State Univ., Pueblo, CO
- P1.20 [Oceans affecting Environment at Rosebud Indian Reservation](#)
Subodh Singh, Sinte Gleska Univ., Mission, SD; and N. Singh and V. K. Singh
- P1.21 [Demand on online weather and atmosphere courses offered by CSUN](#) 
Gong-Yuh Lin, California State Univ., Northridge, CA
- P1.22 [Implementing Online Weather into the quarter system using archive files](#) 
Steve LaDochy, California State Univ., Los Angeles, CA
- P1.23 [Incorporating the AMS Online Weather Studies resources in the design of a new meteorology course](#)
Stephen L. Arnold, Allan Hancock College, Santa Maria, CA
- P1.24 [The sea and sky connection in a high school physical science class](#)
Ann Kelly, AMS/AERA, St. Louis, MO

- P1.25 [Creating user-friendly tools for data analysis and visualization in K-12 classrooms: A Fortran dinosaur meets Generation Y](#) 
Lin H. Chambers, NASA/LaRC, Hampton, VA; and S. Chaudhury, M. T. Page, A. J. Lankey, J. Doughty, S. Kern, and T. M. Rogerson
- P1.26 [NWS & AMS—Education Outreach at its Best](#)
Robert P. Wanton, NOAA/NWS, Mt. Holly, NJ; and J. D. Moore and J. Poirier
- P1.27 [DLESE-Facilitating High Quality Earth Science Education](#) 
Steve Michael Carlson, AMS/NOAA Project Atmosphere AREA, White Salmon, WA
- P1.28 [Enhancing Elementary School Students' Understanding of Hurricanes](#)
William R. Huskin, Central Bucks School District, Doylestown, PA
- P1.29 [Kids' Weather Hour at WFO Amarillo—using NOAA All-Hazards Weather Radio as an educational tool](#) 
Matthew R. Kramar, NOAA/NWSFO, Amarillo, TX; and J. J. Brost
- P1.30 [Meteorology in an integrated activity-based Summer Science Institute for middle school students](#)
Richard Wagner, Metropolitan State College of Denver, Denver, CO; and L. S. Johnson
- P1.31 [Teaching an online oceanography laboratory course using the American Meteorological Society Online Ocean Studies Curriculum](#)
Jacquelyn Hams, Los Angeles Valley College, Valley Glen, CA
- P1.33 [Updated Tornado Safety Preparedness for Schools](#)
Timothy W. Troutman, NOAA/NWS, Huntsville, AL; and H. M. Allen, J. M. Coyne, and D. Nadler
- P1.34 [Science on a Sphere - educational applications at the Nauticus museum](#)
John Anderson, Hampton Univ., Hampton, VA; and W. L. Smith, R. L. Beale, B. H. Maggi, S. Ackerman, and M. Fisher
-  P1.32 [Discoveries and Breakthroughs Inside Science-STEM Education for the General Public](#)
Emilie Lorditch, American Institute of Physics, College Park, MD
- P1.35 [Two courses missing from US university meteorology programs](#) 
Michael W. Douglas, NOAA/NSSL, Norman, OK; and J. Murillo and J. F. Mejia
- P1.36 [International Summer Experiences for Students in Senegal – Year 2](#)
Gregory Jenkins, Howard Univ., Washington, DC
- P1.37 [European Meteorological Society and education in atmospheric sciences](#)
Tomas Halenka, Charles Univ., Prague, Czech Republic; and M. Belda
- P1.38 [Radar-Based Laboratory Exercises Taught at Lyndon State College](#)
Nolan T. Atkins, Lyndon State College, Lyndonville, VT
-  P1.39 [Constant Proportions in the Ocean: A Constructivist approach to teaching seawater composition](#)
Andrew C. Muller, United States Naval Academy, Annapolis, MD
- P1.40 [Kean University's Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ \(Kean University's WHERE – UR – in New Jersey!\)](#) 
Paul J. Croft, Kean Univ., Union, NJ
- P1.41 [Integrating Weather in a tank: From non-major freshmen to junior meteorology majors and graduate dynamicists](#)
Amit Tandon, Univ. of Massachusetts, North Dartmouth, MA; and L. Illari, J. Marshall, S. Lee, G. McKinley, M. C. Morgan, R. D. Clark, T. W. N. Haine, and K. Mackin
- P1.42 [Teaching with tanks: geophysical fluid experiments in undergraduate education](#)
Richard D. Clark, Millersville Univ., Millersville, PA; and S. Clevensine, L. Illari, J. Marshall, A. Tandon, S. Lee, T. W. N. Haine, G. McKinley, M. Morgan, and K. Mackin
- P1.43 [Summer Season Convective Initiation – Students as Independent Researchers](#) 

- Paul J. Croft**, Kean Univ., Union, NJ
- P1.44 [Implementing Weather Studies in Multiple Formats for Non-Science and Science Majors](#) 
Bruce E. Allison, Wesley College, Dover, DE
- P1.45 [Ocean studies: from the virtual world to the real](#) 
Barbara Hillery, SUNY, Old Westbury, NY
- P1.46 [Online Lab Science Course: Meeting the needs of a non-traditional student](#)
James E. Edson Jr., Univ. of Arkansas, Monticello, AR
- P1.47 [Developing online teaching tools using Python, Zope, and Plone](#)
Jeffrey G. Pittman, Lamar Univ., Beaumont, TX
- P1.48 [An assessment of a weather forecasting contest in multi-leveled meteorology classes](#) 
Joby Hilliker, West Chester Univ., West Chester, PA
- P1.49 [YouTube as a tool for meteorological education](#)
Timothy J. Wagner, CIMSS/Univ. of Wisconsin, Madison, WI; and S. Ackerman
- P1.50 [Lessons learned from Katrina - diabetes preparations before the next storm](#)
Peggy B. Bourgeois, Southeast Association of Diabetes Educators (S'eLADe), Baton Rouge, LA
- P1.51 [Service learning through Earth Gauge](#)
Redina L. Herman, Western Illinois Univ., Macomb, IL
- P1.52 [A new operational forecasting webpage at the University of Oklahoma](#)
Kevin H. Goebbert, Univ. of Oklahoma, Norman, OK; and C. M. Shafer, P. T. Marsh, and M. J. Laufersweiler
- P1.53 [Hurricane Weather Support and Education at Embry-Riddle Aeronautical University](#) 
Randell J. Barry, Embry-Riddle Aeronautical Univ., Daytona Beach, FL
- P1.54 [International focus group— virtually there with VISITview](#) 
Bernadette H. Connell, CIRA/Colorado State Univ., Ft. Collins, CO; and V. Castro, M. Davison, A. Mostek, and **T. M. Whittaker**
- P1.55 [An Online Textbook: A Rich Resource for Tropical Meteorology Education](#) 
Arlene Laing, UCAR/COMET, Boulder, CO; and J. L. Evans and W. Abshire
- P1.57 [Cyclones, cones, and confusion: Perspectives from forecasters](#)
Gina M. Eosco, Cornell Univ., Ithaca, NY
- P1.58 [The IODP "School of Rock: Exploring Ocean Cores at the Gulf Coast Repository"](#)
Michael J. Passow, Columbia Univ., Palisades, NY; and L. Peart, M. Leckie, D. Thomas, and S. Katz Cooper
- P1.59 [The NCAR Climate Discovery Online Course Sequence for Middle and High School Educators](#)
Roberta M. Johnson, UCAR, Boulder, CO; and S. Henderson, L. Gardiner, B. Hathaway, K. Meymaris, R. Russell, D. Ward, and S. Foster
- P1.60 [Online Ocean Studies](#)
Carlos J. Ayarza Real, Univ. of Puerto Rico, San Juan, PR

Monday, 21 January 2008

7:30 AM-5:30 PM, Monday 2008


Registration continues through Thursday, 24 January


8:30 AM-10:45 AM, Monday 2008, 209

[Joint Session 1 Increasing public awareness on tropical cyclone forecasting \(Part 1\) \(Joint between the 17th Symposium on Education and the Tropical Meteorology Special Symposium\)](#)

Cochairs: David R. Smith, United States Naval Academy, Annapolis, MD; Robert Hart, Florida State University, Tallahassee, FL

8:30 AM Welcoming Remarks
David R. Smith, United States Naval Academy, Annapolis, MD; and R. Hart

8:45 AM J1.2 [Preparing the public for the onset of the next hurricane](#) 
Ahsha Tribble, NOAA/NWS/NCEP/TPC, Miami, FL

9:15 AM J1.3 [Introducing America's Emergency Network](#) 
Bryan Norcross, WFOR/CBS-TV, Miami, FL

9:30 AM J1.4 [Building hurricane awareness in Florida](#)  
Paul Ruscher, Florida State Univ., Tallahassee, FL; and B. Nelson


9:45 AM J1.5 [Hurricane research to operations: Bridging the "valley of death"](#)
Christopher Landsea, NOAA/NWS/NCEP/TPC, Miami, FL

10:15 AM-10:45 AM, Monday 2008
Coffee Break (Mon a.m.)

10:45 AM-11:45 AM, Monday 2008, 209

[Joint Session 2 Increasing public awareness on tropical cyclone forecasting \(Part 2\) \(Joint between the 17th Symposium on Education and the Tropical Meteorology Special Symposium\)](#)

Cochairs: Robert Hart, Florida State University, Tallahassee, FL; David R. Smith, United States Naval Academy, Annapolis, MD

10:45 AM J2.1 [Improving Public Awareness to Enhance National Preparedness](#) 
John P. Philbin, FEMA, Washington, DC

11:15 AM J2.2 [Communicating hurricane awareness through distance learning](#)
Timothy Spangler, UCAR/COMET, Boulder, CO



11:45 AM-1:30 PM, Monday 2008



Opening Plenary Session Featuring Mayor Nagin of New Orleans (Cash & Carry Lunch)

1:30 PM-2:30 PM, Monday 2008, 209

[Session 1 Informal Educational Outreach](#)

Cochairs: Susan Q. Foster, UCAR, Boulder, CO; Shirley T. Murillo, NOAA/AOML/HRD, Miami, FL

1:30 PM 1.1 [Why does NOAA Invest in Education?](#)  
Louisa Koch, NOAA, Washington, DC

2:00 PM 1.2 [Solar max and the radio wave : MIT Haystack Observatory's multifaceted approach to Space Weather outreach](#)  
Madeleine Needles, MIT Haystack Observatory, Westford, MA; and P. J. Erickson and P. Pratap








2:15 PM 1.3 [CoCoRaHS \(The Community Collaborative Rain, Hail and Snow Network\) the Accidental Network: Evolving Collaborations](#)  
Henry Reges, CoCoRaHS/Colorado State Univ., Fort Collins, CO; and N. J. Doesken, R. C. Cifelli, and J. Turner

2:30 PM-4:00 PM, Monday 2008, Exhibit Hall B
Formal Poster Viewing with Coffee Break (mon p.m.)

4:00 PM-5:30 PM, Monday 2008, 209

Session 2 K-12 EDUCATIONAL OUTREACH

Cochairs: Shirley T. Murillo, NOAA/AOML/HRD, Miami, FL; Susan Q. Foster, UCAR, Boulder, CO

- 4:00 PM 2.1 [NSTA National Meetings: Wild About Weather Short Courses](#) 
Kathleen A. Murphy, AMS Education Resource Educator, St. Louis, MO; and J. Kramper and K. Ehrhardt
- 4:15 PM 2.2 [Discovery of coastal environments](#) 
Barbara K. Walton-Faria, Thompson Middle School, Newport, RI
- 4:30 PM 2.3 [Understanding clouds, weather, climate, and modeling: education and outreach from the Center for Multi-scale Modeling of Atmospheric Processes](#) 
Susan Q. Foster, UCAR, Boulder, CO; and S. Denning, D. A. Randall, R. M. Johnson, J. Bergman, H. Drossman, L. Gardiner, B. Hatheway, R. Russell, B. Jones, J. Lanting, R. Pandya, L. Pitot, and D. Swartz
- 4:45 PM 2.4 [Atmospheric Science and Climate Literacy Workshop Progress Report](#) 
Roberta M. Johnson, UCAR, Boulder, CO; and J. T. Snow, S. Q. Foster, S. M. Buhr, M. McCaffery, F. Niepold, P. Pennington, and C. Manduca
- 5:00 PM 2.5 [EarthWatch Institute's Climate Change at Arctic's Edge: Live from the Field](#) 
John D. Moore, Burlington County Institute of Technology, Medford, NJ
- 5:15 PM 2.6 [Earth system science education for teachers in western Washington](#)  
Michael R. Witiw, Seattle Pacific Univ., Seattle, WA; and E. Close

5:30 PM-7:30 PM, Monday 2008, Exhibit Hall A









Formal Opening of Exhibits with Reception (Cash Bar)

Tuesday, 22 January 2008

8:30 AM-9:45 AM, Tuesday 2008, 209

Session 3 Technology and Teaching Tools in the University Classroom

Cochairs: Donna J. Charlevoix, Univ. of Illinois, Urbana, IL; Diane M. Stanitski, Geocation, LLC, Boulder, CO

- 8:30 AM 3.1 [Integrating LEAD Research in Education](#) 
Sepideh Yalda, Millersville Univ., Millersville, PA; and E. N. Wiziecki, R. D. Clark, E. C. Meyers, H. Gadde, T. Daley, R. Junod, S. States, S. Cecelski, and J. Kurdzo
- 8:45 AM 3.2 [Reflections on a large-lecture, introductory meteorology course: Goals, assessment and opportunities for improvement](#) 
Jonathan D. W. Kahl, Univ. of Wisconsin, Milwaukee, WI
- 9:00 AM 3.3 [Technology & Research Integration – An Atmosphere of Learning for Students \(TRIALS\)](#) 

Paul J. Croft, Kean Univ., Union, NJ
- 9:15 AM 3.4 [Experiences in undergraduate teaching with 'Weather in a tank'](#)  
Lodovica Illari, MIT, Cambridge, MA; and J. Marshall, A. Tandon, R. D. Clark, S. Lee, T. W. N. Haine, G. McKinley, M. C. Morgan, and K. Mackin
- 9:30 AM 3.5 [Use of a business process model as a teaching tool in an undergraduate weather forecasting course](#)  
John M. Lanicci, Embry-Riddle Aeronautical Univ., Daytona Beach, FL

9:45 AM-11:00 AM, Tuesday 2008, Exhibit Hall B







Formal Poster Viewing with Coffee Break (Tue a.m.)

11:00 AM-6:00 PM, Tuesday 2008, Exhibit Hall A
Exhibits Open (Tuesday)

11:00 AM-12:00 PM, Tuesday 2008, 209

[Session 4 Extending our Reach in Atmospheric Science](#)

Cochairs: Diane M. Stanitski, NOAA, Silver Spring, MD; Donna J. Charlevoix, Univ. of Illinois, Urbana, IL

- 11:00 AM 4.1 [The National Weather Service Tallahassee Student Mentorship Program](#)  
Kelly G. Godsey, NOAA/NWS, Tallahassee, FL; and J. S. Rubio and A. I. Watson
- 11:15 AM 4.2 [A long-term plan for eliminating the lack of diversity in the atmospheric sciences](#) 
Quinton L. Williams, Jackson State Univ., Jackson, MS
- 11:30 AM 4.3 [5. A multidisciplinary research course on hurricane Katrina for Freshman students at Howard University](#) 
Gregory Jenkins, Howard Univ., Washington, DC; and G. Middendorf and J. Reidy
- 11:45 AM 4.4 [NC-FIRST: weather information and training for North Carolina emergency managers](#)  
Jessica L. Proud, Renaissance Computing Institute, Chapel Hill, NC










12:00 PM-1:30 PM, Tuesday 2008, La Louisiane

Presidential Forum: Hurricane Katrina: Looking Back to Look Ahead (Cash & Carry) (Presidential Forum will run parallel to the other sessions throughout the afternoon)

1:30 PM-3:00 PM, Tuesday 2008, 209

[Joint Session 3 Using technology to enhance learning: innovations and evidence \(Part 1\) \(Joint between the 17th Symposium on Education and the 24th Conference on IIPS\)](#)

Cochairs: Rajul Pandya, UCAR, Boulder, CO; Tom Whittaker, CIMSS/Univ. of Wisconsin, Madison, WI; Marjorie McGuirk, NOAA/NESDIS/NCDC, Asheville, NC

- 1:30 PM J3.1 [Connecting students to science through the interactive use of NASA Earth science climate data](#)  
Erica J. Alston, NASA/LaRC, Hampton, VA; and L. H. Chambers, P. C. Oots, S. W. Moore, C. S. Phelps, and D. Diones
-  J3.2 [The sky's the limit – developing and implementing a technology-based, interdisciplinary course in atmospheric science for high school students](#)
Eric A. Walters, Marymount School of New York, New York, NY
- 1:45 PM J3.3 [On-line education activities and opportunities](#) 
Margaret Mooney, CIMSS/Univ. of Wisconsin, Madison, WI; and S. Ackerman, T. Whittaker, and L. Avila
- 2:00 PM J3.4 [Applications of automated weather stations in an extension service setting](#) 
Paul Ruscher, Florida State Univ., Tallahassee, FL
- 2:15 PM J3.5 [Educational mismatches between traditional dynamic meteorology lessons and applied forecaster training with high-resolution gridded diagnostics](#)  
Paul Nutter, Univ. of Northern Colorado, Greeley, CO
- 2:30 PM J3.6 [The National Severe Weather Workshop Scenario: Interactive adult learning for integrated warning team members](#)  
Dale A. Morris, CIMSS/Univ. of Oklahoma, Norman, OK; and D. Arndt, J. Burchett, S. J. Corfidi, J. T. Ferree, D. Freeman, G. Kitch, D. S. LaDue, D. McCarthy, J. McLaughlin, E. M.

Quoetone, P. T. Schlatter, R. Smith, and J. L. Winslow



2:45 J3.7A [New Tools, Old Dogs](#) 
PM **Steven A. Ackerman**, CIMSS/Univ. of Wisconsin, Madison, WI


3:00 PM-3:30 PM, Tuesday 2008, Exhibit Hall A
Coffee Break in Exhibit Hall (tues p.m.)


3:30 PM-5:30 PM, Tuesday 2008, 209



[Joint Session 4 Using technology to enhance learning: innovations and evidence \(Part 2\) \(Joint between the 17th Symposium on Education and the 24th Conference on IIPS\)](#)


Cochairs: Tom Whittaker, CIMSS/Univ. of Wisconsin, Madison, WI; Marjorie McGuirk, NOAA/NESDIS/NCDC, Asheville, NC; Rajul Pandya, UCAR, Boulder, CO



3:30 J4.1 [Are we graduating too many atmospheric scientists? An update](#)  
PM **John A. Knox**, Univ. of Georgia, Athens, GA


3:45 J4.2 [Undergraduate experience with technology in an education and research program to measure and understand the climatology of storms in Southeast Texas](#) 
PM **Larry J. Hopper Jr.**, Texas A&M Univ., College Station, TX; and C. Schumacher, K. Brugman, C. Hernandez, U. Karadkar, M. Nordt, and R. Furuta

4:00 J4.3 [Preparing a blended learning course in atmospheric sciences: curriculum, assessment and the online experience](#) 
PM **Eric R. Snodgrass**, Univ. of Illinois, Urbana, IL; and D. J. Charlevoix and J. V. Clark

4:15 J4.4 [Classroom Response Systems in Statistics Courses](#)  
PM **Michael B. Richman**, Univ. of Oklahoma, Norman, OK; and T. J. Murphy, C. C. McKnight, and R. Terry

4:30 J4.5 [Satellite observations in science education](#) 
PM **Tommy Jasmin**, CIMSS/Univ. of Wisconsin, Madison, WI; and T. Whittaker and S. Ackerman

4:45 J4.6 [Building a framework to facilitate interactive and dynamic educational case study modules](#)  
PM **Jeff Weber**, UCAR/Unidata, Boulder, CO; and B. Etherton and S. O. Holmberg

5:00 J4.7 [Utilizing UNIDATA's Integrated Data Viewer as an undergraduate meteorology classroom tool](#) 
PM **Mark S. Kulie**, Univ. of Wisconsin, Madison, WI; and S. A. Ackerman and R. Bennartz

Wednesday, 23 January 2008

5:15 PM, Wednesday 2008
17th Symposium on Education Adjourns

7:00 PM-9:00 PM, Wednesday 2008
AMS Annual Awards Banquet at the Hilton Riverside Hotel

Browse the complete program of [The 88th Annual Meeting \(20-24 January 2008\)](#)