

Lourdes B. Avilés

Associate Professor of Meteorology

Judd Gregg Meteorology Institute

Department of Atmospheric Science and Chemistry - MSC 48

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EDUCATION

- Ph.D. Atmospheric Sciences - 2004 - University of Illinois at Urbana-Champaign
- M.S. Physics - 1997 - University of Puerto Rico, Mayagüez
- B.S. Physics - 1992 - University of Puerto Rico, Mayagüez

WORK EXPERIENCE

- 2009-present – Associate Professor of Meteorology
- 2004-2009 – Assistant Professor of Meteorology
Department of Atmospheric Science and Chemistry (2004-present)
Plymouth State University, Plymouth, NH
- 1996-2004 – Teaching/Research Assistant (Atmospheric Sciences)
Department of Atmospheric Sciences
University of Illinois at Urbana-Champaign, Urbana, IL
- 1993-1995 – Adjunct Faculty (Mathematics, Physical Sciences)
Department of Mathematics and Sciences
Pontifical Catholic University of Puerto Rico, Mayagüez, PR
- 1992-1996 – Teaching/Research Assistant (Physics)
Department of Physics
University of Puerto Rico, Mayagüez, PR

TEACHING AREAS

- Have taught a variety of atmospheric science courses throughout the B.S. Meteorology core curriculum, as well as upper level elective and M.S. applied and specialized courses, and general education courses for non-majors
- Current course rotation:
Dynamic Meteorology I and II, Atmospheric Physics, Air Quality, Tropical Weather and Climate, Severe and Hazardous Weather, Senior Research, Graduate Thesis Research
- Courses previously taught (atmospheric sciences and meteorology):
Introduction to Meteorology, Weather, Weather Laboratory, Climatology, Radio Forecasting Practicum, Multimedia Forecasting Practicum, Graduate Seminar
- Courses previously taught (physics and mathematics):
Physical Sciences, Physics Laboratory for Engineers, Physics Laboratory for Biologists, College Algebra, Pre-Calculus, Remedial Mathematics

CURRENT RESEARCH AREAS

- History of Meteorology
Integrated history and science of past weather events (hurricanes, blizzards, etc.)
Integrated history and science of weather folklore, sayings and myths
History of hurricane knowledge, forecasting, monitoring and general practices
History of forecasting, atmospheric monitoring (instrumentation) and data visualization
Historical figures in meteorology and related sciences

SELECT PUBLICATIONS AND PRESENTATIONS

Avilés, L. B., 2014: Using Historical Data to Inform a General-Audience-Level Narrative of the Great New England Hurricane of 1938. 31st Conference on Hurricanes and Tropical Meteorology, San Diego, CA.

Avilés, L. B., 2014: Finding the Storm: Resource and Archival Research on the Great New England Hurricane of 1938. 17th Conference of Atmospheric Science Librarians International, 94rd Annual Meeting of the American Meteorological Society, Atlanta, GA.

Avilés, L. B., 2014: Seventy Five Years Later: Little Known, Updated and New Information Related to the Great New England Hurricane of 1938. 12th History Symposium, 94rd Annual Meeting of the American Meteorological Society, Atlanta, GA.

Avilés, L. B., 2014: Introducing General Audiences to Atmospheric Science Topics through Historical Weather Events: The Great New England Hurricane of 1938. 23rd Symposium on Education, 94rd Annual Meeting of the American Meteorological Society, Atlanta, GA.

Avilés, L. B., D. Vallee, B. Avery and S.A. Jasko, 2014: The 1938 Hurricane, a Junior Forecaster, and Public Understanding. 105th Annual Eastern Communication Association Convention, Providence, FL.

Avilés, L. B., 2014: Fire Island Past, Present, and Future: The Environmental History of a Barrier Beach. Book Review. *Environmental History* 19(2), 375-377 pp.

Avilés, L. B., 2013: *Taken by Storm, 1938: A Social and Meteorological History of the Great New England Hurricane*. American Meteorological Society, 384 pp.

Avilés, L. B. (curator), 2013: The Great Blowdown: Effects of the 1938 Hurricane in Northern New England. Museum of the White Mountains panel exhibit.

Avilés, L. B., 2013: On the Nuances Associated with Analyzing Historical Rainfall Observations before and during the Great New England Hurricane of 1938. 11th History Symposium, 93rd Annual Meeting of the American Meteorological Society, Austin, TX.

Avilés, L. B., 2012: On the Actions and Inaction of the U.S. Weather Bureau During the Great New England Hurricane of 1938. 10th History Symposium, 92rd Annual Meeting of the American Meteorological Society, New Orleans, LA.

Nielsen-Gammon, J. W., L. B. Avilés and E. Joseph, 2009: What Does it Take to Get Into Graduate School. *Bull. Amer. Meteor. Soc.*, 90, 1698-1705.

Avilés, L. B., 2007: Integration of Lecture, Laboratory and Hands-On Activities in an Introductory Severe Weather Course for Non-Majors. 16th Symposium on Education, 87th Annual Meeting of the American Meteorological Society, San Antonio, TX.

Hoch, B. and L. B. Avilés, 2007: Using Podcasts to Distribute Real Time Multimedia Meteorological Products. 16th Symposium on Education, 87th Annual Meeting of the American Meteorological Society, San Antonio, TX.

Avilés, L. B., 2004: *African Easterly Waves: Their Evolution and Their Role in Tropical Cyclone Formation*. Ph.D. Dissertation, University of Illinois, 211 pp.

Avilés, L. B., 1997: *Evaluation of the Quasielastic Dynamic Structure Factor for Anharmonic Potentials*. M.S. Thesis, University of Puerto Rico, Mayagüez, 151 pp.

OTHER SELECT PROFESSIONAL RECOGNITIONS, ACTIVITIES AND INTERESTS

2013 Atmospheric Science Librarians International History Choice Award

Taken by Storm, 1938: A Social and Meteorological History of the Great New England Hurricane

Citation: "ASLI's Choice for its comprehensive account of this major storm, from its inception to aftermath."

2010-appointed member of drafting committee, American Meteorological Society (AMS) Curricular Guidelines for BS in Meteorology and Related Sciences

(http://www.ametsoc.org/policy/2010degree_atmosphericscience_amsstatement.html)

2008-present: planning committee and chair for various sessions, AMS Symposium of Education and Symposium on History.

2007-present: appointed member of various national committees

AMS Board on Higher Education, representative to the AMS Board on Women and Minorities, AMS Committee on the History of Atmospheric Sciences and University Consortium for Atmospheric Research (UCAR) Membership Committee, Program representative to UCAR

2006-present: anonymous reviewer

NSF grant proposals in hurricane science and AMS journal articles in atmospheric science education

2004-present: University, college, department and program service activities

- Faculty governance – faculty speaker, chair Faculty Steering Committee, member General Education committee, faculty representative to Professional and Technical staff senate, new faculty observer Welfare Committee
- More than 20 faculty and administrator searches and promotion and tenure committees in meteorology, chemistry, biology, mathematics, computer science, environmental science and information technology
- Faculty week workshops and presentations, new faculty orientation, spring fling volunteer, class visits (hurricanes, Hispanic culture, science papers)

- Department and program – chair promotion and tenure committee, department promotion and tenure guidelines drafting, meteorology program work load plan, curricular revision of B.S. in Meteorology, M.S. committees, academic advisor
- Student recruitment and orientation activities – orientation, registration, welcome to the major, introduction to academic life, prospective student visits
- Community-related activities – presentations, tours, TV interviews, newspaper interviews

1997-present: minority/underrepresented groups service and other activities

- Fellow – Minorities Graduate Incentive Fellowship
- Advisor and host to Puerto Rican students for NSF summer internship program
- Member – Plymouth State University President's Commission on Diversity
- Invited speaker for Hispanic Culture in the U.S. course
- Panelist for Diversity in America discussion
- Panelist for Women in Science and Technology Forum for high school girls
- Planner and moderator – Meteorology Girls Night Out discussion about issues related to being a woman scientist
- Invited keynote speaker – women in male dominated science fields

1992-present: have taught a large variety of courses

Climatology, Tropical Meteorology, Air Quality, Dynamic Meteorology, Atmospheric Physics, Introduction to Meteorology, Weather, Weather Laboratory, Severe and Hazardous Weather, Graduate Seminar, Graduate Thesis Research, Radio Forecasting Practicum, Multimedia Forecasting Practicum, Physics Laboratory for Engineers, Physics Laboratory for Biologists, Physical Science, College Algebra, Pre-Calculus, Remedial Mathematics

Professional Memberships

American Meteorological Society
 National Weather Association
 American Geophysical Union
 National Association of Science Teachers
 Phi Kappa Phi Honor Society