



UALBANY
State University of New York

DEPARTMENT OF

ATMOSPHERIC &
ENVIRONMENTAL SCIENCES

ALUMNI NEWS

2019-2020



THE CHAIR'S CORNER

It gives me great pleasure to welcome you to our 6th edition of our departmental newsletter. For those who are unaware, I took over as DAES Chair from Chris Thorncroft in February when he assumed the position of Interim Director of the Atmospheric Sciences Research Center (ASRC). I would like to thank Chris for his 11 years of service as DAES Chair, during which time the department underwent substantial growth in a number of fronts, including faculty, graduate students, and undergraduate student opportunities. That expansion set the stage for some of the highlights of the past year, which are distributed throughout this newsletter. Chris remains active within the department and I look forward to working with

him to further enhance atmospheric science research and education in his new role.

DAES faculty experienced a number of milestones in the past year. I am very proud to say that Andrea Lang, Brian Rose, and Brian Tang were promoted to Associate Professor with tenure, while Oliver Elison-Timm received tenure. Lance Bosart retired from teaching after 50 years – his contributions are recognized later in this newsletter. Rob Fovell recently received the 2019 Dean's Award for Outstanding Achievement in Teaching. Finally, DAES has an ongoing search for a new assistant professor with research expertise in Earth System Science.

The Department had another strong year raising federal funds for research. We currently boast 42 active federal awards from a variety of agencies including NOAA, NSF, NASA and ONR. The funding supports students and postdocs in the Department. Indeed, DAES welcomed 10 new graduate students for the Fall 2019 semester. The incoming class hails from six different states, while another is from Switzerland. These students will research topics such as hurricane intensification, the role of terrain in convection initiation, and Congo Basin rainfall variability. Furthermore, the department graduated 11 Ph.D and 9 M.S. students over the past year. The UAlbany Weather and Climate Center has been developing numerous forecast applications for numerous public and private entities. Finally, the New York State Mesonet celebrated collecting its billionth observation since its inception.

Our undergraduate atmospheric and environmental science majors continue to give us much to celebrate, including numerous awards and presentations at major research conferences. Thanks to generous donations from alumni and collaborating companies, we are able to send our students to national conferences. In addition, our students have participated in international internship opportunities in South America, Greenland, and Taiwan.

Construction of the ETEC building, which will house DAES, ASRC, New York State Mesonet, and the Albany National Weather Service office, is proceeding in earnest. The DAES building committee toured the building in August and came away excited for the opportunities that the building would present. The newsletter contains a detailed discussion of the building and photos from the tour. There is a time-lapse camera showing building progress that can be seen at the following website: <https://www.workzonecam.com/projects/turnerz>. We still expect to move into this building during the summer of 2021.

Enjoy!

Ryan Torn
Professor and Chair

DEPARTMENT HIGHLIGHTS

UAlbany Students Explore the Greenland Ice Sheet on Research Expedition



From left: Celia Werner '21, Chelsea Snide '19, and Allison Finch '20.

In June, three UAlbany undergraduate students spent their first days of summer far away from sandy beaches and scorching temperatures – instead conducting experiments around the second-largest ice sheet on the planet.

The students were part of a large team of researchers, also including undergraduates from the University of Michigan and Virginia Tech, who recently returned from an 11-day expedition to the Greenland Ice Sheet.

Led by Perry Samson '72, '74, a University of Michigan professor and **Department of Atmospheric and Environmental Sciences** (DAES) double alum, and supported by the National Science Foundation (NSF), the trip offered undergraduate students an opportunity to explore authentic atmospheric and space science issues on the massive, Arctic island.

It also commemorated a University of Michigan Greenland expedition in 1926, led by professor William Herbert Hobbs. His team's journey led to some of the island's first meteorological and geological observations.

"The power of experiential learning opportunities such as this is less what is learned during the expedition and more about the creation of new questions which will drive curiosity afterward," said Samson. "When I was a student at UAlbany it was an opportunity like this that galvanized my interest in atmospheric studies. It's my sincere hope that the students who participated in this expedition will be challenged to deepen their exploration of the science of climate."

Students first joined at UAlbany for several days of preparation, including a training session in the **College of Emergency Preparedness, Homeland Security and Cybersecurity** (CEHC) drone lab, where they learned how to visually map conditions of the ice sheet. They then climbed aboard a United States Air Force Guard LC-130 at Stratton Air National Guard Base in Schenectady on June 18, traveling more than 1,800 miles north.

Their expedition was based in Kangerlussuaq, a community on the island's southwestern coast. Starting from base camp, the students ventured out over the tundra to conduct experiments around the Greenland Ice Sheet, and also flew to its nearby Summit Station, a year-round remote research station managed by the NSF.

Greenland's "melt season" typically runs from June to August, with the bulk of melting occurring in July. But this year, the island is experiencing unusual ice melt, losing an estimated 2 billion tons in just a single day last month. A previous study published in 2016 by UAlbany atmospheric scientist Jiping Liu found a link between Arctic sea ice loss and Greenland's shrinking ice sheet, which in turn is contributing to rising global sea levels.

The students' experiment results will help record a snapshot of the current state of Greenland's climate conditions.

"Our expedition to Greenland centered on recreating atmospheric measurements made by Prof. Hobbs in 1926," said Chelsea Snide, a 2019 DAES graduate. "Seeing the ice sheet up close was breathtaking. I could not believe how large it was, and how surprisingly sandy it gets. Most unexpected though was the amount of glacial melt that we saw both first hand and through our plane window."

"Being able to go to Greenland was truly a once in a lifetime experience," added Allison Finch, a DAES senior. "The knowledge I've come back with, whether it be about the katabatic winds, climate change, or sled dogs, is something I would have never been able to learn and understand in a classroom setting. It has shown me how important field work and first hand experiences are for students."

DEPARTMENT HIGHLIGHTS

Investigating Arctic Weather CONTINUED

“This trip to Greenland was a unique opportunity to experience taking atmospheric and climate measurements out in the field,” said Celia Werner, a DAES junior. “Seeing the glaciers and ice sheets of Greenland, that have such a huge affect on our global climate, was life changing and affirmed me in my studies of atmospheric science.”

The research team returned to the U.S. on June 28.

The Summit Camp, also known as the Summit Station, is a year-round research station on the apex of the Greenland Ice Sheet. Its coordinates are variable, since the ice is constantly moving.



AGU, UAlbany Partnership Seeks to Increase Diversity in Geosciences



2018 Department of Atmospheric and Environmental Sciences female PhD graduating class with professors Kristen Corbosiero (left) and Andrea Lang (right).

A new program designed to diversify the geosciences community is partnering with UAlbany’s Weather-Climate Enterprise.

The **American Geophysical Union’s (AGU) Bridge Program** launched this year to develop, adopt and share inclusive practices for recruiting, admitting and retaining women and underrepresented minorities who are pursuing graduate degrees in the earth and space sciences.

Partners, which include the **Department of Atmospheric and Environmental Sciences (DAES)** and **Atmospheric Science Research Center (ASRC)** at UAlbany, will be given access to the AGU Bridge Program’s bachelor and master’s student applicant database to identify and recruit qualified students.

AGU has announced 14 partnering institutions – from 52 applications – to join the program.

“DAES is proud to be one of four primarily atmospheric science departments to be selected in the inaugural cohort, particularly given the number of institutions that applied,” said DAES Chair and Professor Ryan Torn. “We look forward to partnering with the AGU Bridge Program to increase the representation of underrepresented groups in our field.”

“ASRC is thrilled to be part of this program as we continue to encourage excellence through increased diversity and a culture of inclusiveness,” added ASRC Interim Director Christopher Thorncroft.

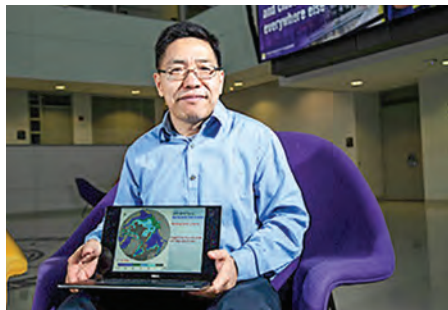
Beginning December 2019, students who want to join the Bridge Program can use a free common application.

Once accepted, students will be able to take advantage of professional development opportunities, including workshops and conferences, and connect with faculty and other students who are part of the program.

“The AGU Bridge Program is an asset to institutions seeking to increase diversity in their departments and the larger geosciences community,” said AGU Executive Director and CEO Chris McEntee. “By working together, we can create a more welcoming environment in the Earth and space sciences for everyone. Congratulations to the 2019 AGU Bridge Partner institutions.”

DEPARTMENT HIGHLIGHTS

Aiguo Dai Listed Among the World's Most-Cited Scientists in New Database



*Aiguo Dai, Professor in the Department of Atmospheric and Environmental Sciences.
(Photo by Patrick Dodson)*

A new global database of the top 100,000 most-cited scientists has placed **Department of Atmospheric and Environmental Sciences (DAES)** Professor Aiguo Dai among the elite in his field and across all disciplines.

The rankings, developed by a group of researchers at Stanford University, assessed scientists across the globe based on their research citations. Based on 2017 citations alone, Dai is ranked No. 2 in the field of meteorology/ atmospheric science and within the top 380 of all ranked scientists. In the paper's career-wide analysis, which dates back to 1996, he ranked No. 24 in his field and just outside the top three percent overall.

A composite score was awarded based on six different citation metrics. More weight was given to the total number of times a scientist was listed as the single, lead author, or last author of a cited research paper. Self-citations were excluded to provide a more accurate representation of scientific impact. The top-cited scientists were selected from about 7 million around the world who have published at least five papers in their career. Scientists are classified into 22 scientific fields and 176 subfields.

More than 60 UAlbany faculty are listed on the database, including numerous researchers from the School of Public Health, College of Arts & Sciences, School of Business, School of Criminal Justice, College of Engineering & Applied Sciences, School of Education, Rockefeller College of Public Affairs & Policy, and the Center for Technology in Government. To view the full list of faculty, visit the *PLOS Biology* article at <https://doi.org/10.1371/journal.pbio.3000384>.

"This ranking represents a new milestone in quantitative evaluation of the impact of scientists in their fields," said Dai. "It's an honor to be recognized. I'm grateful to UAlbany for providing me with an excellent environment to do research and for my colleagues at DAES who continue to support me."

"Professor Dai's research is a great example of the high-impact work in weather and climate that is occurring at UAlbany," said DAES Chair and Professor Ryan Torn. "I am happy that Aiguo's work has been recognized by scientists around the world and congratulate him on a significant personal achievement."

Dai has published more than 140 peer-reviewed research articles among dozens of well-respected journals in atmospheric and climate sciences. He is the most cited scholar at UAlbany, according to Google Scholar, with a total of more than 33,000 citations, an annual citation rate exceeding 4,200 per year, and an h-index of 70.

He is currently working on several climate change-related projects, including how Arctic rapid warming and sea-ice loss may affect mid-latitude weather and climate; how future precipitation and atmospheric thermodynamic conditions may change under increasing greenhouse gases; and how precipitation, droughts and other hydroclimate fields have changed since the 1950s.

DEPARTMENT HIGHLIGHTS

K – 12 Outreach



Over this past year, the DAES Outreach Program has maintained a strong presence in the local community through participation in numerous outreach events, establishing new partnerships and continuing relationships with previous organizations. In February, students performed experiments and shared their journeys to becoming atmospheric scientists with children and their parents at the Guilderland Library's STEAM (Science, Technology, Engineering, Art and Mathematics) Night.



UAlbany hosted its 7th Annual Family Earth Day Event in April, featuring various interactive demonstrations and hands-on activities related to atmospheric and environmental science as well as sustainability. Children were also able to meet and take pictures with the Weather Friends, superheroes with powers related to various atmospheric and environmental phenomena, and their polar bear friend, Pax.

We also partnered with the Rise High Program for our third annual outreach event in April. In an effort to assist

the program's mission to expose under-resourced youth to careers in STEM, undergraduate and graduate students led interactive demonstrations and activities that allowed participants to step into the shoes of several atmospheric and environmental science professions including being a broadcast meteorologist, research scientist, and forecaster.

Over the summer, we collaborated with Girls Inc. — a program dedicated to developing strong, smart, and bold girls — for a second year. Students spent a week with the DAES and the ASRC listening to several professionals share their paths to their current career and what it entails, participating in hands-on experiments related to a variety of atmospheric and environmental science careers and taking a field trip to visit a Mesonet weather station. Additionally, a small group of teachers from the local area gathered together in August to learn about how they can better engage their students in atmospheric and environmental sciences.

Last, but certainly not least, women from the department have attended the Flying Cloud Institute's Girls Science Clubs throughout the past year. These after-school clubs are designed to inspire upper elementary and middle school students from low-income and disadvantaged families toward STEM careers by engaging them in dynamic, interactive science demonstrations that challenge them to think critically about the world around them.

Our undergraduate and graduate students have had so much fun sharing their passion for atmospheric and environmental sciences this past year and cannot wait to engage even more people this next year!

DEPARTMENT OF ATMOSPHERIC & ENVIRONMENTAL SCIENCES

DEPARTMENT HIGHLIGHTS

ETEC the Emerging Technology and Entrepreneurship Complex

A collaborative space is taking shape ... along with DAES and ASRC, the College of Emergency Management, Homeland Security and Cybersecurity, as well as the Department of Environmental and Sustainable Engineering will be located in the new Emerging Technology and Entrepreneurship Complex.



Construction on the ETEC building has proceeded in earnest over the past year and the building is visibly taking shape in the Harriman Campus. The final steel column was put in place on Valentine's Day and the building is enclosed as of this writing.

The DAES building committee was able to take a tour of the building in August, during which time we were able to take some photos of the DAES spaces, some of which are included here.



Just off the main entrance of the building is the Science on a Sphere Room. The audio-visual equipment within this room will allow projections of geophysical data on a sphere, such as satellite and climate data, as part of courses and community outreach events. Within the main atrium area is a 200-person training and conference room that can support seminars, or small conferences.



Most of the DAES space is on the 4th floor of the building, including faculty, staff and graduate student offices, three state-of-the-art classrooms, and numerous conference rooms. In addition, there will be a new high-tech map room with a large 4 x 3, 16-ft. video wall and equipment that will permit interactive map discussions. The map room will be located just down the hall from the Albany National Weather Service Forecast Office, which will allow for joint weather discussions during major events.

Finally, the upper floor contains a 270-degree view observation deck that has excellent views of the west and south, which will provide great views of incoming weather. Just outside of the observation deck is a green teaching roof and associated instrumentation.



In addition to DAES, ETEC will house a number of related units that present new partnership opportunities. For the first time, DAES and ASRC will be within the same building. In particular, the building will house the College of Emergency Management, Homeland Security and Cybersecurity and the Department of Environmental and Sustainable Engineering, which will encourage new and exciting academic and research collaborations.

We look forward to providing updates in future newsletters and welcoming everyone to the new home of DAES in Summer 2021!



DEPARTMENT HIGHLIGHTS

Earth Science Teacher Workshop



In August, Ross Lazear led a full-day workshop for regional earth science teachers. Visiting teachers first learned about opportunities for students in DAES, followed by an exploration of weather data and visualization tools in the DAES weather map room. Rob Fovell conducted an introductory weather and climate lecture, graduate students Emily Paltz and Alex Tomoff led educational demonstrations, and then the group visited the operations center at the New York State Mesonet. Lunch was hosted by DAES in the map room, giving faculty an opportunity to talk with the teachers and learn about their own K–12 programs, and for faculty to inform teachers about the opportunities available at UAlbany for their own students interested

in atmospheric or environmental sciences. Mathias Vuille's PIRE–CREATE group, led by Project Manager Natalia Ruiz Menal, postdoc Ernesto Tejedor Vargas, and Ph.D student Rebecca Orrison, introduced the teachers to dendrochronology and sampled the core of several campus trees. Finally, the workshop concluded with a visit to the Voorheesville Mesonet site at Indian Ladder Farms, with a tour led by atmospheric science major Ashley Williamson. The workshop has already fostered collaborations between DAES and regional high schools, and class field trips have taken place as well. A similar workshop will take place in DAES on July 29, 2020.

DAES welcomed 10 new students for the Fall 2019 semester



Left to right: Natalie Rivera Torres, Kathrin Alber, Elizabeth McCabe, Patrick Naple, Scott Feldman, Alejandro Ayala, Adam Sisco, Matthew Jenkins, Brennan Stutsrim, and Matthew Seymour.

VISITING SCHOLARS & Ph.D STUDENTS (1/1/2019 thru 12/31/2019)

Visiting Scholars

Pengyuan Li

Affiliation

Ocean University of China

Visiting PhD Students

Yuyang Guo

Yanyi He

Kanzhuo Suonan

Yiming Zhang

Wanxin Zhang

Affiliation

Chinese Academy of Sciences

Beijing Normal University

China University of Geosciences (Wuhan)

Nanjing University of Information Science and Technology

Nanjing University of Information Science and Technology



DAES on TWITTER

twitter.com/UAlbanyDAES



DAES on FACEBOOK

See link at www.albany.edu/atmos

DEPARTMENT OF ATMOSPHERIC & ENVIRONMENTAL SCIENCES

AWARDS CEREMONY

Honoring Legacies and Celebrating Excellence

The outstanding academic achievements of select undergraduate and graduate students was recognized and celebrated thanks to the generosity of the families of past and present professors on November 1, 2019 during the DAES Annual Award Ceremony.

The 2019 recipients are:

- **Bernard Vonnegut Teaching Award** to Minghao Zhou
- **Arthur Loesch Scholarship** to Erin Leghart
- **Bosart Family Scholarship** to Katy Hollinger
- **Narayan R. Gokhale Research Award** to Joshua Alland
- **George Tai-Jen Chen, PhD '71 Scholarship** to Christina Talamo
- **Vince and Carol Idone Endowed Scholarship** to Haley Gronlund
- **DAES Distinguished Service Award** to Sarah Ditchek



Left: From left to right, Erin Leghart, Katy Hollinger, Joshua Alland, Christina Talamo, and Minghao Zhou. (not pictured, Sarah Ditchek)



Right: From left to right, Haley Gronlund, Professor Vincent Idone '77, and Carol Idone '78.

COMMENCEMENT AWARDS Congratulations Class of 2019!

Outstanding ATM Student: Chelsea Snide

Outstanding ENV Student: Aleks Siemenn

Atmospheric Science Program Best Forecaster: Michaela Kawczak

Bachelor of Science – Atmospheric Science

Jessica Blair, Joan Grossman, Michaela Kawczak, Jared Milano, Hyewon Park, Jacob Shultis, Chelsea Snide, and Brennan Stutsrim.

Bachelor of Science – Environmental Science

Terence Allard, Michael Cardom, Emily Dillon, Heather Dormady, Victoria Dugan, Dennis Dunne, Rachel Kearns, Kendra Lopez, Claire Morrison, Diana Phillips, and Aleks Siemenn.



GRADUATE DEGREE RECIPIENTS

The department is proud to announce the recent Masters and Ph.D. graduates of Atmospheric Science.

Masters: **Fall 2018:** Jason Covert

Spring 2019: Tomer Burg and Meghan Conway

Summer 2019: Matthew Campbell, Ernesto Findlay,
Alexander Kubinieć, Daniel Reese, and Eli Turasky

Ph.D.: **Fall 2018:** Oscar Chimborazo, Lawrence Gloeckler III, and Chao-Yuan Yang

Spring 2019: Joshua Alland, Yuan-Ming Cheng, and Jennifer Gahtan

Summer 2019: Di Chen, Sarah Ditchek, T. Connor Nelson, and Casey Peirano



STUDENT NEWS

Graduate students **Kevin Biernat** (MS '18), **Massey Bartolini**, **Peyton Capute**, **Alex Gallagher**, **Alex Mitchell**, **Matt Seymour**, **Brennan Stutsrim**, and **Alex Tomoff** and Assistant Professor **Kristen Corbosiero** (MS '00, PhD '05) participated in the August 2019 National Weather Service Partners meeting at the University at Albany.

Senior Environmental Science undergraduate student **Mitchell Campbell** completed a 2-month internship at the Argentinean Institute for Snow, Glacier and Environmental Sciences in Mendoza, Argentina.

PhD student **Lauriana Gaudet** won an Outstanding Student Presentation Award in the 11th Symposium on Aerosol–Cloud–Climate Interactions.

PhD students **Lauriana Gaudet**, **Kevin Lupo**, and **Emily Paltz** attended the 2019 National Center for Atmospheric Research Advanced Study Program Summer Colloquium on Quantifying and Communicating Uncertainty in High-Impact Weather Prediction.

Undergraduate students **Katy Hollinger** and **Luke LeBel** received the Saraswati (Sara) Bahethi and Jay Fein, respectively, American Meteorological Society Named Scholarships.

PhD student **Tyler Leicht** participated in the summer 2019 Atmospheric River Colloquium Summer School at Scripps Institution of Oceanography in La Jolla, California.

In July, PhD student **Yan Jiang** published a paper, *A Longer Dry Season in the Congo Rainforest*, in *Nature Climate Change*.

PhD student **Hing Ong**'s poster presentation was selected as the First Place Poster among student entries in the 7th Symposium on the Madden–Julian Oscillation and Sub-Seasonal Monsoon Variability.

PhD Students **Rebecca Orrison**, **Zhaoxiangrui He** and **Tommy Favata** and Senior Environmental Science undergraduate student **Gabriela Cohen** participated in a Summer School on tree-ring research and cave monitoring in the Atlantic rain forest in São Paulo State, Brazil.

PhD student **Emily Paltz** participated in the Organization of Tropical East Pacific Convection (OTREC) field campaign in August 2019. She collected radar data and flew in the National Oceanic and Atmospheric Administration's P3 research aircraft.

PhD student **Heather Sussman** accepted the Science, Mathematics, and Research for Transformation (SMART) Fellowship from the Department of Defense.

Undergraduate **Kayleen Torres Maldonado** participated in the summer 2019 National Center for Atmospheric Research Undergraduate Leadership Workshop.

FEATURED ALUMNUS

**Elizabeth Moran**

**Environmental Policy Director,
New York Public Interest Research Group (NYPIRG)**

What got you interested in environmental science?

I've always been passionate about protecting the environment - but it didn't click with me right away as a student that environmental science would be the right fit! I started out in college thinking I'd major in biology, then I thought chemistry, but neither seemed quite right. Eventually, I realized environmental science incorporated both disciplines and much more, and I could focus on societal issues that mean a lot to me.

What made you choose UAlbany?

I have to admit, I didn't expect to stay at UAlbany! I came in as a transfer student from a private school, and I thought I might go to another school after a year (I'm from the area originally, so I didn't think I'd want to stay so close to my hometown,) but I ended up loving UAlbany. I found home in the DAES and through my peers in the campus clubs I was involved with. I loved that UAlbany, despite being a huge school, was able to offer me a tight community of people to become my colleagues and friends.

Give us a synopsis of what you enjoyed about our program.

There's so much I loved about the environmental science program. Many courses offered hands-on experiences, like field trips to see wind farms and hydroelectric facilities firsthand. I also loved the interdisciplinary nature of the program that enables students to get a diverse learning experience. But what really made the program for me was the people. The professors encouraged me to pursue my passion in environmental advocacy and encouraged debate and discussion in the classroom, and my peers felt like teammates.

Who were your most memorable professors or courses at UAlbany?

Professor Delano and Professor Vuille both taught my favorite courses, were incredibly kind, and did more than simply teach the curriculum well - they provided students with wise advice for life "in the real world." Professor Delano is the reason I switched my major to environmental science, and he encouraged and supported me as I pursued my passion in environmental advocacy and New York politics. As my advisor, he helped me incorporate coursework towards my environmental science major that fit in with my career path.

How has your career evolved since you completed your degree (i.e., how did you end up at your current position at NYPIRG)?

I got involved in the organization I work for (NYPIRG, the New York Public Interest Research Group) while I was a student at UAlbany. NYPIRG offers students internships in their Albany office, where you can learn the ins and outs of New York State politics firsthand by walking the halls in the Capitol. That internship made me realize I wanted to combine my interest in science with my interest in politics and pursue a career in environmental policy and advocacy. My first job in the field was one year after graduating, at Environmental Advocates of New York. The position focused exclusively on water policy, which I am proud to say has given me expertise in that area. Now, at NYPIRG, I lead the organization's work on an array of environmental issues - from stopping plastic pollution, to combating climate change, to ensuring drinking water is safe for all New Yorkers.



ALUMNI NEWS

Josh Alland (PhD '19) started working as an Advanced Study Program Postdoctoral Fellow at the National Center for Atmospheric Research in Boulder, CO.

Hannah Attard (BS '12, MS '15, PhD '18) is an Assistant Professor of the Practice at Embry-Riddle University.

Jessica Blair ('19), **Chelsea Snide** (BS '19), and current undergraduate **Jacob Dolinger** participated in the July 2019 Mind the Gap workshop on better connecting the academic and private sector meteorology communities co-organized by Associate Professor **Andrea Lang** and **Larry Gloeckler** (BS '11, MS '15, PhD '19).

Matthew Campbell (MS '19) is a National Weather Service meteorologist in Wilmington, Ohio.

Oscar Chimborazo (PhD '18) started working as an Adjunct Professor at the Technological University of Ambato, in the city of Ambato, Ecuador.

Michael Fischer (PhD '18) and **Larry Gloeckler** (BS '11, MS '15, PhD '19) received the 2018-2019 Distinguished Doctoral Dissertation Award. This prize is awarded to the best dissertation in any field in the College of Arts and Sciences.

Reid Kisselback (BS '17) is a broadcast meteorologist at WNYT in Albany, NY.

Pablo Paiewonsky (PhD '17) is a post-doctoral research assistant in paleoclimate analysis at the University of Reading, School of Archaeology Geography & Environmental Science.

Casey Peirano (PhD '19) is working as a scientist at Electro Magnetic Applications in Pittsfield, Massachusetts.

Daniel Reese (MS '19) is a National Weather Service meteorologist in Topeka, Kansas.

Aleks Siemenn (BS '19) received an NSF Graduate Research Fellowship.

Michael Slifer (BS '17) is a broadcast meteorologist at WCSH in Portland, ME.

Chelsea Snide (BS '19) received honorable mention for her proposal, NSF Graduate Research Fellowship.

Stephanie Stevenson (PhD '18) and **Rosimar Rios-Berrios** (PhD '19) participated in a panel discussion on hurricane forecasting moderated by Assistant Professor **Kristen Corbosiero** (MS '00, PhD '05) during the November 2019 RISE conference held at the University at Albany.

Christian Yarleque (PhD '18) accepted a position as Deputy Director of Information and Analysis at the Peruvian National Institute for Glacier and Mountain Ecosystem Research in Huaraz, Peru.

DAES Hosts 10th Annual Alumni Reception in Phoenix, Arizona



On January 8, 2019 DAES hosted the 10th annual alumni reception at the American Meteorological Society (AMS) annual meeting at the Sheraton Grand Phoenix. Over 150 faculty, students, alumni and friends of the department were in attendance.

Special thank you to MESO, Inc., Citadel, AccuWeather, Riskpulse, and our colleagues at the UAlbany Alumni Association for sponsoring the event and for contributing to the attendance for six undergraduate students.

Join us on Tuesday January 14, 2020 6:30pm – 9:00pm at the 11th annual alumni reception in Boston, Massachusetts. Alumni and friends of the department are invited.



DEPARTMENT OF ATMOSPHERIC & ENVIRONMENTAL SCIENCES

FACULTY RETIREMENT

Distinguished Professor Lance F. Bosart

Contributor: Research Professor Daniel Keyser



Distinguished Professor Lance F. Bosart formally retired from the University at Albany (UAlbany) on 1 September 2019, marking the conclusion of a remarkable and legendary 50-year career as a faculty member in the Department of Atmospheric and Environmental Sciences (DAES). “Formally retired” is the intended term, since Lance is continuing in the DAES as a research professor and at the National Center for Atmospheric Research as an affiliate scientist, maintaining the same demanding and hyperactive work and travel schedule prior to his retirement and not showing any signs of slowing down.

Lance’s career as a faculty member in the DAES is remarkable and legendary in terms of the vast scope and enormous impact of his contributions in research and education. It is said that a faculty appointment in a research university offers the opportunity to merge research and education in the sense of research and teaching informing and building synergistically off of each other. Lance seized this opportunity from the start of his UAlbany faculty career in 1969, immediately following completion of his Ph.D in meteorology at the Massachusetts Institute of Technology under the mentorship of Professor Frederick Sanders, and has merged research and education ever since, without exaggeration, more effectively than anyone who has ever worked in the discipline of synoptic-dynamic meteorology. Lance’s undergraduate and graduate teaching has been consistently informed by his research, with his courses almost always incorporating an original research project, and, throughout his career, he has conducted his research primarily through advising and mentoring legions of undergraduate and graduate students, and postdoctoral research associates, who are represented in all sectors of the weather–climate community. Lance’s legacy of outstanding and influential contributions in research and education has been recognized and honored by conferral of the Jule G. Charney Medal and the Edward N. Lorenz Teaching

Excellence Award by the American Meteorological Society and a Special Lifetime Achievement Award by the National Weather Association. Consistent with his leading stature and international reputation in synoptic-dynamic meteorology, Lance has achieved the rank of Fellow in the American Meteorological Society and the American Association for the Advancement of Science.

Lance’s passion for research and teaching is driven by his innate and intense curiosity about how the atmosphere works, and his research and teaching have been informed by continually paying close attention to the present weather from a global, multiscale perspective. In his own words, Lance states that “I have broad research interests in planetary-scale, synoptic-scale and mesoscale meteorology. I work on a variety of multiscale (time and space) research problems that relate to the weather and climate of higher- and middle-latitude regions as well as the tropics. Research problems that involve winter storms, hurricanes, organized convective systems and the predictability of individual flow regimes are especially attractive to me. I am especially interested in problems at the weather – climate interface. I am also interested in the weather analysis and forecasting process including forecast verification studies and the measurement and assessment of forecaster skill. My forecast-related activities have stimulated me to pursue numerous synoptic-dynamic research opportunities with my graduate and undergraduate students that have resulted in refereed publications.” The ongoing practice of “continually paying close attention to the present weather from a global, multiscale perspective” has been highly successful in identifying research issues and opportunities of potential interest to the synoptic-dynamic research community, which are captured and documented through the weekly review and discussion of recent weather events conducted by Lance and selected graduate students on Friday afternoons during the academic year, and disseminated on the map listserv in the form of “map posts.” In between the regularly scheduled Friday map discussions, and when classes are not in session, Lance posts frequently on the map listserv about weather events of opportunity. The map listserv,



FACULTY RETIREMENT

Distinguished Professor Lance F. Bosart CONTINUED

which is hosted by the DAES, presently comprises more than 600 domestic and international members representing the diverse constituencies of the weather – climate community, and which may be regarded as one of Lance’s signature innovations and enduring contributions to this community.

This tribute to Lance on the occasion of his formal retirement would not be complete without several remarks about him on a personal level. First and foremost, Lance is well known for his skill and aptitude for seasoning his conversations with liberal doses of puns, many of them original, often when least expected by the participants in the conversations. In addition to puns, over the course of his career, Lance has compiled a list of favorite phrases and sayings, which have been referred to as “Lance-isms,” that invariably crop up in class lectures and more often than not are invoked outside of class in presentations at conferences and workshops. Lance-isms are particularly effective in rendering Lance’s lectures and presentations distinctive and memorable, although, as with his puns, they carry the risk of taxing the patience of non-native English speakers. Well-known examples are “meteorological bombs,” “synoptic horse sense,”

“throwing the baby out with the bath water,” “waiting until the cows come home,” “taking the bait,” and “an Avogadro’s number of weather maps.” Having collaborated with Lance on a variety of research and educational endeavors, most extensively under the auspices of the Cooperative Science, Technology, and Applied Research Program, in cooperation with the Albany Office of the National Weather Service, I can state unequivocally that Lance is the embodiment of collegiality, freely, patiently, and enthusiastically sharing his knowledge and insights about how the atmosphere works and how to educate students. Indeed, Lance observes and understands, i.e., “reads,” students as perceptively and skillfully as the day-to-day weather, which, in my view, has allowed him to achieve the unparalleled degree of success in merging research and education that I noted earlier. I am confident that I speak for all who have been affiliated with the DAES during the past 50 years by stating that we are incredibly fortunate to have been the direct beneficiaries of Lance’s legacy of outstanding and influential contributions in research and education, which, given that he has only “formally retired,” I anticipate will continue for many more years.

WELCOME NEW POST-DOCTORALS

Dr. Kevin Bachmann



Dr. Kevin Bachmann completed his Ph.D at the Ludwig Maximilian University of Munich (Germany) in May 2019. His research focused on the effects of radar data assimilation, orography, and the synoptic weather regime on predictability limits of convective precipitation. His studies

utilize a range of model configurations, from idealized simulation to operational forecasts, and various advanced verification techniques. He joined the research group of Ryan Torn in July 2019 and is now assessing the skill of probabilistic hazard forecasts derived from the HWRF ensemble prediction system. In addition, he will employ machine learning to post-process those forecasts and improve their value for forecasters.

Dr. Bruno Ribeiro



Dr. Bruno Ribeiro earned his Ph.D from the National Institute for Space Research (INPE; Brazil) in May 2018. His Ph.D research focused on synoptic/mesoscale environments associated with severe convective storms in the La Plata Basin.

Bruno participated on research field campaigns focused on severe weather in South America, such as the RELAMPAGO and the SOS-Chuva, and worked for a few years on research-to-operation activities in operational forecasting centers in Brazil. Currently, he is working on multi-scale predictability of severe weather events in the U.S. as part of the PREEVENTS project.

DEPARTMENT OF ATMOSPHERIC & ENVIRONMENTAL SCIENCES

STAFF RETIREMENT

Stephen Howe

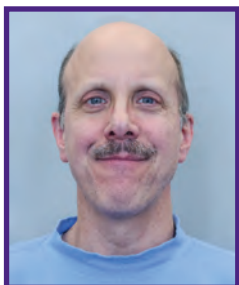
Contributor: Professor Ryan Torn



Steve Howe retired from UAlbany in August after 23 years. Steve earned his B.S. in Geology with High Distinction from the University of Rochester in 1976 and M.S. in Geochemistry and Mineralogy in 1981 from Penn State. After working for the USGS, University of Vermont, and Northwestern, Steve was hired as an Instructional Support Specialist for the mass spectrometry labs in the Department of Earth and Atmospheric Science and Chemistry Department, with Steve eventually moving to DEAS full-time, mainly working with Brad Linsley. Over his career, Steve was a co-author on 24 peer-reviewed papers, many with the department's stable isotope group. After Brad Linsley left UAlbany, activity in the mass spectrometry lab ceased, and Steve's focus turned toward teaching and supporting the Environmental Science degree. During that time, Steve was instrumental in increasing the number of internships and improving upon the laboratory exercises in numerous courses. Students in GEO 221 will miss Steve's excellent geologic tour of Thatcher Park. Finally, Steve was an active member of the undergraduate committee and in transfer advisement. In his retirement, Steve plans to spend time with his family in Vermont.

David Vollaro

Contributor: Professor John Molinari



Dave Vollaro graduated from the University at Albany in 1986 and received his M.S. degree with me as his advisor in 1988. As a student he was an extremely careful programmer who double-checked all of his calculations. Shortly after his MS graduation, I hired Dave to give programming help. That was the beginning, and we ended up working together until 2019, supported by multiple Federal agencies over the years. Dave loves work, and before he married he would come in on

David Knight

Contributor: Kevin Tyle,

Manager of Departmental Computing



David Knight retired in May 2019 after 30 years as a member of DAES. David received his Ph. D. in Atmospheric Science from the University of Washington and was hired as an Assistant Professor in our department. He spent the last quarter century as a Senior Research Associate in DAES. David's primary role was providing scientific computing support to faculty, staff and grad students. He also taught undergraduate and graduate classes in scientific programming and mesoscale processes and dynamics. David also served on the Users Committee of the Unidata Program Center in Boulder Colorado during his tenure at UAlbany. His collaboration with Unidata led to the provisioning of the National Lightning Detection Network (NLDN) realtime feed to colleges and universities in the United States, which continues to this day.

We wish David well in his retirement.

holidays "just to get a few things done." Dave was co-author on 23 papers with me and helped grad students with numerous others. One of my greatest regrets in retirement was losing the time he and I worked together. Dave is a gentleman in every sense of the word, and an incredibly talented programmer.

We got along well despite Dave being a Yankee fan. This Red Sox fan still enjoyed talking baseball, and of course we discussed our ups and downs in the football pool.

I wish Dave and Sandy and the girls the best of luck in upcoming years.



FACULTY NEWS

Associate Professor **Kristen Corbosiero** (MS '00, PhD '05) become an Editor of Monthly Weather Review in January 2019.

Professor **Robert Fovell** received the College of Arts and Sciences 2019 Dean's Award for Outstanding Achievement in Teaching.

Associate Professor **Brian Tang** was selected to participate in the American Meteorological Society's Early Career Leadership Academy.

STAFF NEWS

Administrative Manager, **Chaina Porter** (BA '99, MS '19) earned a Masters in Mental Health Counseling, a part-time endeavor, that began shortly after joining the department in 2014.

Department Secretary, **Ashley Turski**, was promoted to Administrative Assistant to the Vice President, Research in August.

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