95ᴛʜ Annual Review, New Fellows, and Featured Awards

Jennifer Alexander

For over 22 years, Colonel (Ph.D.) Jennifer Alexander has supported Air Force, Army, and NASA air and space operations throughout the United States, Spain, Saudi Arabia and Afghanistan. She has also served on a variety of AMS committees, to include the AMS Council and Executive Committee. Colonel Alexander is currently assigned to the U.S. Air Force Academy, Colorado, as Permanent Professor and Department Head, Department of Economics and Geosciences.

Richard A. Behnke

Richard Behnke is Head of Geospace in the Division of Atmospheric and Geospace Sciences at the NSF. Since its inception in 1995 to the present, he has served as chair or co-chair of the Committee for Space Weather, the multi-agency group coordinating federal activities in space weather research and operations. He has been a pioneer in integrating space weather into the AMS and serves on the AMS Scientific and Technological Activities Commission Space Weather Committee.

Anton Beljaars

Anton Beljaars received a Ph.D. in Physics and worked for 10 years in boundary layer research in The Netherlands. Then he joined the European Centre for Medium-Range Weather Forecasts (ECMWF, UK), first as Boundary Layer Meteorologist and later as Section Head with responsibility for the research and further development of sub-grid process modelling. His own research is on the representation of boundary layer, land surface, sub-grid orography, air-sea interaction, hydrological cycle, clouds, and numerics in Numerical Weather Prediction Models.

Cecilia M. Bitz

Cecilia Bitz is a professor in Atmospheric Sciences at the University of Washington, and she is part of the UW Program on Climate Change. Cecilia's research focus is on climate and climate change in the high latitudes, especially involving the cryosphere. She is currently working on Arctic sea ice predictability, the hydroclimate of Antarctica, and climate control of snow depths on sea ice. Cecilia is an active volunteer and science advisor to Polar Bears International.

Larry E. Brazil

Dr. Brazil is the President and CEO of Riverside Technology, Inc., where he provides corporate direction for the development and implementation of decision support systems for water management. His work has included applications of water resources modeling and forecasting for water supply, hydropower, and emergency management in more than 30 countries. Prior to joining Riverside, he spent 11 years as a Research Hydrologist at the National Weather Service developing components of real-time hydrometeorological forecast systems.

James M. Cantore, CBM

Jim Cantore, on-camera meteorologist and storm tracker for The Weather Channel, is one of the most recognized faces in weather. Known for live reports from severe weather events, he has covered every major weather event over the last 25 years. When not in the field, he covers the latest forecast and weather news on Weather Center Live. Cantore graduated with a bachelor's degree in meteorology from Lyndon State College.

John A. Church

John Church is a CSIRO Fellow with the Centre for Australian Weather and Climate Research. His area of expertise is the role of the ocean in climate, particularly anthropogenic climate change and sea-level rise. He is the author of over 130 refereed publications, over 80 other reports and co-edited three books. He is a Fellow of the Australian Academy of Science and the Australian Academy of Technological Sciences and Engineering.

Amy C. Clement

Dr. Amy C. Clement is a professor of Atmospheric Science at the University of Miami's Rosenstiel School of Marine and Atmospheric Science. Dr. Clement and her research group use computer models of the climate together with satellite and surface based observations to understand how the climate changes on timescales ranging from years to millennia. She received a Bachelor's degree and a Ph.D. from Columbia University and has been a faculty member at the University of Miami since 2001.

Thomas L. Delworth

Dr. Thomas Delworth earned his Ph.D. from the University of Wisconsin. He is a Physical Scientist at GFDL/NOAA in Princeton, New Jersey, where he uses climate models and observations to study decadal to centennial scale climate variability and change. His research foci include the role of the ocean in the climate system, and decadal scale changes in hydroclimate including drought. He is also a Lecturer at Princeton University in the Atmospheric and Oceanic Sciences Program.

Qingyun Duan

Dr. Qingyun Duan is a professor at College of Global Change and Earth System Science in Beijing Normal University in China. He held scientist positions at Lawrence Livermore National Laboratory and NOAA Hydrology Laboratory. His research interests include surface hydrology, development and calibration of hydrologic models, hydrometeorological ensemble forecasting, and uncertainty quantification of large complex system models. He is a fellow of the American Geophysical Union and Hydrology Editor of *BAMS*.
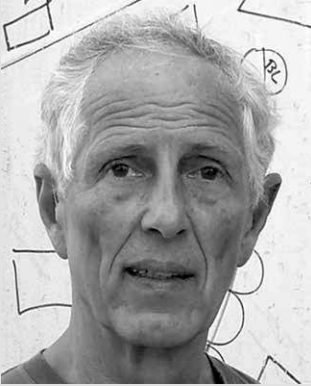
Claude Frankignoul

Claude Frankignoul is Professor Emeritus at the University Pierre et Marie Curie in Paris, member of the Institut universitaire de France, and adjunct scientist at WHOI. Prior to joining UPMC, he worked at the Max-Planck-Institute für Meteorologie, Hamburg, and at MIT. Current research foci include the ocean response to stochastic atmospheric forcing, the Atlantic meridional overturning circulation, and the ocean influence on the atmosphere, using theoretical models and statistical analysis of observations and climate models.

James J. Hack

James J. Hack directs the National Center for Computational Sciences, a DOE leadership computing complex at Oak Ridge National Laboratory. He received a Ph.D. in Atmospheric Dynamics from Colorado State University spending the majority of his career at NCAR, serving in a variety of roles including Climate and Global Dynamics Division Deputy Director. He remains active on a number of national and international advisory and steering committees among which include DOE, NOAA, and NSF appointments.

Martin Hoerling

Dr. Martin Hoerling is a meteorologist in NOAA's Earth System Research Laboratory in Boulder, Colorado. He is Co-Editor of the Special Supplement to the *Bulletin of the American Meteorological Society* on Explaining Extreme Events from a Climate Perspective. Dr. Hoerling has published over 70 scientific papers exploring climate dynamics. These include studies on African and Indian monsoons, middle latitude variability linked to ENSO, causes of extreme weather and climate events, and climate predictability assessments.

Conrad C. Lautenbacher, Jr.

Lautenbacher served as Administrator of the National Oceanic and Atmospheric Administration (NOAA) from 2001-2008 after four decades of Navy service retiring as Vice Admiral. He serves as CEO of GeoOptics, a commercial weather satellite data service. The Fair Weather report was issued on his watch, and he remains dedicated to building and maintaining a unified weather enterprise. He serves on the AMS Weather and Climate Enterprise Steering Committee, and Forecast Improvement Group.

Amanda H. Lynch

Amanda Lynch is the Director of the Institute at Brown for Society and Environment and a Professor in the Department of Earth, Environmental and Planetary Sciences at Brown University. Lynch has published more than 100 articles, policy briefs, book chapters and books in climate and meteorological modeling and adaptation policy, particularly in the polar regions. Presently, Lynch is Chief Editor of the journal of *Weather, Climate, and Society,* and President of the Society of Policy Scientists.

Gloria L. Manney

Manney is a Senior Research Scientist at NorthWest Research Associates, an Adjunct Professor of Physics at New Mexico Tech, and a co-investigator on NASA's JPL-based Aura Microwave Limb Sounder project. Her 160+ peer-reviewed publications include landmark papers using satellite and meteorological data to quantify Arctic ozone loss, as well as studies of stratospheric sudden warmings and dynamics and transport in relation to the stratospheric polar vortex, upper tropospheric jets, and the tropopause.

Robert D. Palmer

Robert D. Palmer received his doctorate in electrical engineering from the University of Oklahoma in 1989. Dr. Palmer currently holds the Tommy C. Craighead Chair in the School of Meteorology at the University of Oklahoma, and serves as the Associate Vice President for Research. His research interests focus on the application of advanced radar signal/array processing techniques to observations of severe weather, particularly related to phased-array radars and other innovative system designs.

Lorenzo M. Polvani

Polvani has taught at Columbia University for 25 years, for which he has received many accolades, including the Great Teacher Award from the Society of Columbia Graduates. He has published 130 refereed papers in atmospheric and climate dynamics, notably on stratospheric variability and on the impact of ozone depletion on the climate system. He is past chair of the AMS Committee formerly known as Waves and Stability, and of the Committee on Middle Atmosphere.

Warren L. Qualley

Warren Qualley is the Senior Weather Expert for Harris Corporation. He has 35+ years of aviation meteorology experience, having worked the majority of his career as manager of weather services at American Airlines. Qualley is the chair of the AMS Committee on Open Environmental Information Services, chairs the International Air Transport Association's Flight Operations Support Task Force, and is active in many other industry groups. Qualley and his wife live in the Washington, DC, area.
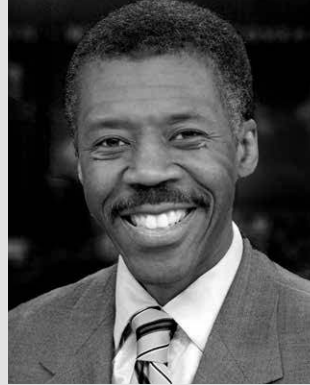
Alan Sealls, CBM

Sealls is an award-winning broadcast meteorologist and a part-time meteorology professor. He is a past president of the Chicago Chapter of the AMS, and a past chair of the AMS Board of Broadcast Meteorology. Alan Sealls has reached tens of thousands of kids and adults in public presentations promoting meteorology. He has produced more than 30 weather videos for kindergarten to college level, used throughout the U.S.

Mark C. Serreze

Mark Serreze is Director of the National Snow and Ice Data Center and Professor of Geography at the University of Colorado, Boulder. His research has focused largely on Arctic climate and the environmental changes unfolding in the region. He has authored or co-authored over 100 refereed articles and has played a prominent role in science communication. Serreze is lead author of the award-winning textbook, *The Arctic Climate System*, which is now in its second edition.

Matthias Steiner

Steiner is a scientific program manager at NCAR's Research Applications Laboratory. He is interested in mitigation of avoidable weather impacts on various sectors based on creatively drawing upon his expertise in hydrometeorology, cloud and precipitation physics, mountain meteorology, radar and satellite meteorology, and aviation weather. Steiner has served AMS as a member of the Radar Meteorology Committee and the Aviation, Range, and Aerospace Meteorology committees, organizer of conferences, reviewer of countless manuscripts, and facilitator of best student paper awards.

Gregory J. Tripoli

Professor Tripoli has published over 80 scientific papers since beginning his career almost 50 years ago with the inspiration of James Witt while attending Lakeland High School. His research focuses on atmospheric dynamics, thermodynamics and microphysics on scales ranging from global to micro scale. Tripoli was the original developer of the FSU Tropical Analysis system, GFDL nested hurricane model, the GFDL ocean analysis system, the CSU cloud-mesoscale and RAMS models, and the UW-NMS model.

D. Randolph Watts

Professor Watts is an international expert in the dynamics of energetic ocean current regimes, how they transport heat and affect ocean circulation. He developed the Inverted Echo Sounder with Current Meter and Bottom Pressure (CPIES), which are used to map time-varying currents, probing frontal and mesoscale processes over a range of space and time scales. He has participated in 14 large field programs world-wide, and is known for outstanding mentorship and unselfish cooperation in research.

Frank J. Wentz

Mr. Wentz is the CEO of Remote Sensing Systems (RSS), a company specializing in microwave remote sensing of the Earth. Using microwave observations from over 35 satellites, RSS produces climate records of atmospheric temperature/moisture and sea-surface temperature/winds. These satellite records span 35 years and contribute significantly to the IPCC Assessment Reports. He is an author on over 100 refereed articles and is an Elected Fellow of AGU and AMS.

Jack C. Williams

Jack Williams helped create the USA TODAY Weather page and was its editor when the paper began publication in 1982. The USA TODAY *Weather Book*, published in 1991, was the first of his seven books. It and *Hurricane Watch*, co-written with Dr. Bob Sheets, won AMS Battan Awards. After retiring from USA TODAY in 2005, Williams wrote the *AMS Weather Book*, published by the Society in 2009. He's now a freelance writer focusing on meteorology.
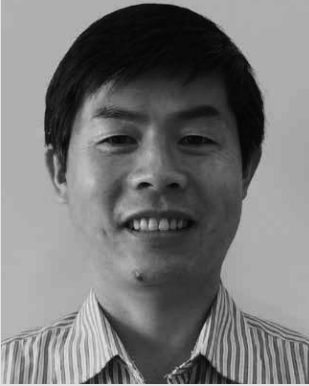
Fuqing Zhang

Fuqing Zhang is a professor in Department of Meteorology and Department of Statistics at Penn State University. He directs the Penn State center on Advanced Data Assimilation and Predictability Techniques. His research interests include atmospheric dynamics and predictability, data assimilation, tropical cyclones, and gravity waves. He has 140+ journal publications. He received the AMS Clarence Meisinger Award in 2009 and the Banner Miller Award in 2015. He was elected as a fellow of AMS in 2015.


Renyi Zhang

Renyi Zhang is holder of the Harold J. Haynes Endowed Chair and University Distinguished Professor in the Departments of Atmospheric Sciences and Chemistry at Texas A&M University. He earned a Ph.D. from MIT and completed postdoctoral work at Caltech/NASA Jet Propulsion Laboratory. Zhang is editor for *Journal of the Atmospheric Sciences*, served as editor of the *Journal of Geophysical Research–Atmospheres*, and chaired the AMS Atmospheric Chemistry Committee. He is also an AGU Fellow.

THE Award for Outstanding Student Chapter of the Year

SOUTHWEST PENNSYLVANIA STUDENT CHAPTER
California, Pennsylvania.
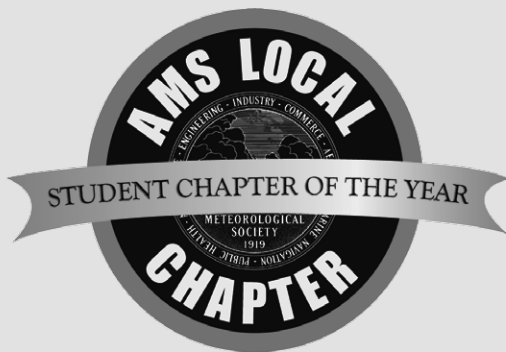
For its long-standing educational outreach, its strong, multifaceted focus on member education, and exemplary interaction with other local chapters.

THE Award for Outstanding Chapter of the Year

BLUE RIDGE CHAPTER
Blacksburg, Virginia.
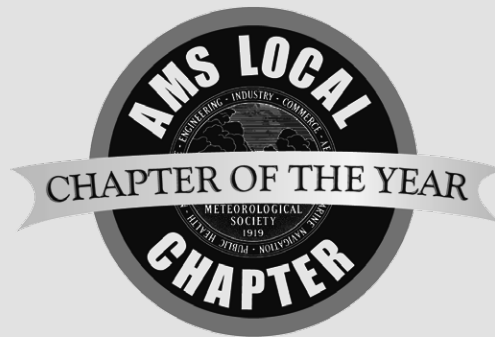
For outreach in raising community awareness about severe weather, and excellence in career building through a diverse speaker series and networking opportunities for chapter members.

The Award for an Exceptional Specific Prediction

NOAA National Weather Service
Forecast Office, Norman, Oklahoma

For detailed, life-saving forecasts provided days through hours leading up to the EF-5 tornado that struck Newcastle, Moore, and Oklahoma City on May 20, 2013.

The Award for Distinguished Science Journalism in the Atmospheric and Related Sciences

Doyle Rice
Weather Reporter, USA TODAY, McLean, Virginia.

For accurate, engaging reporting that brought forward the latest science to inform the public about a wide range of weather and climate topics.

Doyle Rice has covered weather and climate for USA TODAY since 2004. He also oversees the newspaper weather page and the online weather section. A former reporter for a weekly newspaper in Massachusetts, he graduated from Oberlin College (BA) and the University of Massachusetts-Boston (MA). Doyle's most vivid weather memories are of snowy Ohio winters in the '70s and of Hurricane Bob in New England in 1991. He now lives with his wife and two kids in Silver Spring, Maryland.

THE Louis J. Battan Author's Award

Ian Roulstone
Professor, Department of Mathematics,
Faculty of Engineering and Physical Sciences,
University of Surrey, Guildford, England.

John Norbury
Supernumary Fellow, Lincoln College,
Oxford, United Kingdom

For Invisible in the Storm, which illuminates the mathematical foundation of weather prediction with lucid prose that provides a bridge between meteorologists and the public.

Ian Roulstone studied for his DPhil at Oxford, supervised by Roger Penrose and Andrew Hodges. After 15 years as a research scientist at the UK Met Office, Ian joined the University of Surrey, where he holds a Chair in Mathematics. In 2013 he published, with his co-author John Norbury, Invisible in the Storm: the role of mathematics in understanding weather, and has since been actively engaged in public outreach and school liaison.

John Norbury obtained his Ph.D. in applied mathematics from Cambridge University. From 1984 John has held a fellowship in applied mathematics at Lincoln College, Oxford, and engaged in research at Oxford University in analytical and numerical methods for the solution of the equations used in weather forecasting.

THE Louis J. Battan Author's Award—K–12

Seymour Simon

For <u>Extreme Earth Records</u>, which, by virtue of its dynamic photos and conversational tone, engages kids' curiosity about record-breaking events as a springboard for explaining science.

Seymour Simon, whom the *New York Times* called "the dean of the [children's science] field," has written nearly 300 children's science books. He has received the *AAAS/Subaru Lifetime Achievement Award* for his lasting contribution to children's science literature, and his website, www.SeymourSimon.com, is both a Webby Honoree and one of ALA's "Great Websites for Kids." More than 75 books written by Seymour Simon have been designated "Outstanding Science Trade Books K-12" by the National Science Teachers' Association.

EDITOR'S AWARD
Bulletin of the American Meteorological Society

ROBERT J. KULIGOWSKI

Meteorologist, NOAA / NESDIS / Center for Satellite Applications and Research (STAR), College Park, Maryland.

For providing comprehensive, timely reviews that provided valuable stylistic and technical insights with unusual precision and thoughtfulness.

Bob Kuligowski has been at NESDIS since 1999. He received his B.S. and M.S. degrees in Meteorology and a Ph.D. in Civil Engineering (hydrology) from Penn State University, and also previously worked as an operational weather forecaster. His current projects include developing the operational rainfall algorithm for the GOES-R series of geostationary satellites and improving the Ensemble Tropical Rainfall Potential (eTRaP) product for forecasting short-term rainfall from tropical systems.

EDITOR'S AWARD
Bulletin of the American Meteorological Society

JOHN W. NIELSEN-GAMMON

Regents Professor and Texas State Climatologist, Texas A&M University, College Station, Texas.

For extraordinary effort and thoroughness in evaluating a wide range of challenging and novel studies with versatility and perceptiveness.

John Nielsen-Gammon received his Ph.D. from the Massachusetts Institute of Technology in 1990 and joined the faculty of Texas A&M University a year later. His research interests include synoptic and mesoscale meteorology, data assimilation, air pollution meteorology, and applied climatology. He has served as Chair of the AMS Board on Higher Education and President of the International Commission on Dynamical Meteorology.

EDITOR'S AWARD
Journal of Hydrometeorology

FAISAL HOSSAIN

Associate Professor, Department of Civil and Environmental Engineering, University of Washington, Seattle, Washington.

For numerous detailed, constructive, and timely reviews, often submitted well before the due date.

Faisal is an associate professor at University of Washington where he conducts research on satellite remote sensing, water management, and understanding human impacts of hydroclimatology. His research has an underlying theme of making research innovation relevant for societal applications and technology transfer, particularly in the developing world. He has served as associate editor for the *Journal of Hydrometeorology* and he recently edited the water volume of Climate Vulnerability Encyclopedia.

EDITOR'S AWARD
Weather and Forecasting

CRAIG SCHWARTZ

Research Meteorologist, National Center for Atmospheric Research, Boulder, Colorado.

For dedication to maintaining the journal's high standards by providing perceptive and constructive reviews of many manuscripts spanning a broad range of topics.

Craig joined NCAR's Mesoscale and Microscale Meteorology (MMM) division in 2009 after completing his Master's degree at the University of Oklahoma. His research focuses on using various data assimilation techniques to improve weather forecast models, with an emphasis on high-resolution numerical weather prediction.

EDITOR'S AWARD
Journal of Climate

JOHN FASULLO
Project Scientist, NCAR, Boulder, Colorado.

For timely and thoughtful reviews of a large number of manuscripts.

Dr. John Fasullo is a Project Scientist in the Climate and Global Dynamics Division at NCAR and a Research Associate at the University of Colorado. He is actively involved in studies aimed at understanding climate variability and change, as well as in community activities such as the https://climatedataguide.ucar.edu/, Climate Data Guide, and http://www2.cesm.ucar.edu/working-groups/cvcwg/cvdp, Climate Variability Diagnostics Package. Dr. Fasullo served as a contributing author to both the IPCC Fourth and Fifth Assessment Reports.

EDITOR'S AWARD
Journal of Climate

COURTNEY SCHUMACHER
Professor, Department of Atmospheric Sciences, Texas A&M University, College Station, Texas.

For high-quality reviews that help authors place their work into a broader context.

Dr. Courtney Schumacher received her Ph.D. from the University of Washington in 2003 after which she joined the faculty of the Department of Atmospheric Sciences at Texas A&M University. She has been happily teaching courses on tropical and radar meteorology ever since. Dr. Schumacher's research interests focus on convective processes and mesoscale organization. Her work provides insight on storm structures and how they relate to the large-scale atmospheric circulation.

EDITOR'S AWARD
Journal of Atmospheric and Oceanic Technology

Renzo Bechini
Radar Meteorologist, Arpa Piemonte, Torino, Italy.


For thorough, thoughtful reviews of a large number of manuscripts, completed in a timely manner.

Renzo Bechini is a radar meteorologist at Arpa Piemonte, the regional agency for environmental protection in northwestern Italy. He has a masters degree in physics and he is currently a Ph.D. candidate at Colorado State University, Fort Collins, Colorado, where his research focuses on radar data assimilation into numerical weather prediction models. Before joining Arpa Piemonte, he was a weather forecaster at CESI (Milan), a global provider of engineering services in the power industry.

EDITOR'S AWARD
Journal of Atmospheric and Oceanic Technology

James C. McWilliams
Professor, Department of Atmospheric and Oceanic Sciences, UCLA, Los Angeles, California.
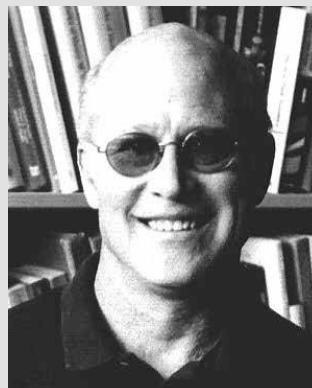
For timely, high-quality reviews of manuscripts related to numerical ocean modeling.

James McWilliams received his B.S. in 1968 from Caltech and Ph.D. in 1971 from Harvard in Applied Mathematics. He worked at the National Center for Atmospheric Research. In 1994 he became the Slichter Professor of Earth Sciences at UCLA. His primary area of scientific research is the fluid dynamics of Earth's oceans and atmosphere. He is a fellow of the AGU and a member of the U.S. National Academy of Sciences.

EDITOR'S AWARD
Monthly Weather Review

Jason Sippel
HWRF Support Scientists—
NCEP EMC, College Park, Maryland.

For providing insightful and constructive feedback on numerous submissions on a broad range of topics, and for undertaking such reviews with extremely tight deadlines.

Dr. Sippel attended Texas A&M University from 1999 to 2008, where he earned a B.S., M.S., and Ph.D. in Atmospheric Sciences. After leaving Texas A&M, he spent two years under the NASA Postdoctoral Program at Goddard Space Flight Center. He subsequently continued at Goddard under the GEST and GESTAR cooperative agreements, where he primarily worked on the Hurricane and Severe Storm Sentinel experiment. He recently left Goddard and joined the HWRF team at NCEP EMC.

EDITOR'S AWARD
Monthly Weather Review (and) Weather and Forecasting

Russ S. Schumacher
Assistant Professor, Department of Atmospheric Science, Colorado State University, Fort Collins, Colorado.

For thorough reviews of a large number of manuscripts, considerably improving their scientific quality and thereby helping maintain the high standards of the two journals.

Russ Schumacher has been assistant professor in the Department of Atmospheric Science at Colorado State University since 2011. He received his B.S. from Valparaiso University, and earned his M.S. and Ph.D. in atmospheric science from Colorado State University. He received a CAREER award from the National Science Foundation in 2010, and students selected him Outstanding Professor of the Year in 2012. His research and teaching interests include mesoscale meteorology, extreme precipitation, and numerical weather prediction.

EDITOR'S AWARD
Journal of Physical Oceanography

LAURENCE PADMAN
Senior Scientist, Earth & Space Research, Corvallis, Oregon.

For consistently providing insightful and thorough reviews in true collegial spirit.

Laurence Padman is Vice-President and a Senior Scientist at Earth Space Research. He received his Ph.D. in Oceanography from the University of Sydney in 1987, and then worked at Oregon State University until moving to ESR in 1997. His research focuses on interactions between the polar oceans, sea ice and ice shelves, including ocean-forced thinning of Antarctica's ice shelves and how tidal currents and turbulence affect Arctic sea ice.

EDITOR'S AWARD
Journal Applied Meteorology and Climatology

TREVOR ALCOTT
Meteorologist, National Weather Service, Western Region Headquarters, Salt Lake City, Utah.

For an exceptionally thoughtful and detailed set of reviews on a complicated manuscript that provided excellent insights and helped improve the paper.

Alcott grew up in New Hampshire's White Mountains, where at an early age he developed a fascination with mountain weather. He earned his B.S. in atmospheric science from SUNY Albany in 2007, and then joined the Mountain Meteorology Group at the University of Utah, where he earned a Ph.D. in atmospheric sciences in 2012. Alcott's current research is focused on understanding predictability and improving forecasts in the complex terrain of the western U.S.

EDITOR'S AWARD
Journal of the Atmospheric Sciences

Evgeni Fedorovich
Professor, School of Meteorology, University of Oklahoma, Norman, Oklahoma.

For insightful, timely, and thorough reviews and re-reviews of several manuscripts during the last two years.

Fedorovich's principal areas of activities are boundary-layer meteorology and environmental fluid dynamics. He received a Ph.D. in Geophysics (1986). Fedorovich joined OU in 1999 after working in Russia (Voeikov MGO), France (Ecole Centrale de Nantes), Italy (University of Genoa), and Germany (University of Karlsruhe). He received the Humboldt Research Fellowship (1991), Humboldt Research Award (2009), AMS *Journal of the Atmospheric Sciences* Editor's Award and Dean's Award from College of Atmospheric and Geographic Sciences, OU (2008). Fedorovich is the recipient of Edith K. Gaylord Presidential Professorship, OU (2012). He is Co-Editor-in-Chief of *Boundary-Layer Meteorology* since 2014.

EDITOR'S AWARD
Journal of the Atmospheric Sciences

Judith L. Lean
Senior Scientist, Sun-Earth System Research, Naval Research Laboratory, Washington, D.C.

For her expert reviews that were always constructive, probing, and encouraging.

Judith Lean's research focuses on the mechanisms and measurements of variations in the Sun's radiative output at all wavelengths, and the effects of this variability on Earth, including space weather, the ozone layer and climate change. She was elected an AGU Fellow in 2002, a member of NAS in 2003, and a member of the APS in 2013. She has authored 150 published papers in scientific literature and has made 300 presentations.

EDITOR'S AWARD
Weather, Climate, and Society

Carla Roncoli
Senior Research Scientist, Department of Anthropology,
Emory University, Atlanta, Georgia.

For two independent, thorough, thoughtful, constructive reviews requested simultaneously by the editor.

Carla Roncoli is Senior Research Scientist in the Department of Anthropology at Emory University. For the last 20 years she has conducted interdisciplinary research on the human dimension of climate change, focusing on the climate knowledge and risk management strategies of smallholder farmers in Africa and in the American South. She advises global and regional agencies on the development of climate services for agriculture. Dr. Roncoli has published extensively in scholarly journals and is a contributing author for the Africa Chapter of the 5th TAR of the IPCC.

The Max A. Eaton Student Prize

Allison A. Wing

NSF Postdoctoral Research Fellow, Lamont-Doherty Earth Observatory, Columbia University, Palisades, New York.

For her paper, "Physical mechanisms controlling self-aggregation of convection in idealized numerical modeling simulations."

Allison Wing is currently a NSF Postdoctoral Research Fellow at Columbia University's Lamont-Doherty Earth Observatory in Palisades, NY. She received her Ph.D. in Atmospheric Science in 2014 from the Massachusetts Institute of Technology's Department of Earth, Atmospheric and Planetary Sciences. Prior to attending MIT, she received her Bachelor of Science, Summa Cum Laude in 2008 in Atmospheric Science from Cornell University's College of Agriculture and Life Sciences.

The Peter V. Hobbs Student Prize

Zhujun Li

Ph.D. Student, University of Miami, Miami, Florida.

For her paper, "On simulated trade-wind cumulus convection and cold pools."

Li graduated with a bachelor's degree in Atmospheric Science from Sun Yat-Sen University (Guangzhou, China) in 2008. She received a Ph.D. degree in Meteorology and Physical Oceanography in August 2014, from University of Miami, Florida. Li started working as a postdoctoral fellow at the NASA Langley Research Center in November 2014.

95TH ANNUAL AWARDS BANQUET

Wednesday, 7 January 2015

AMERICAN METEOROLOGICAL SOCIETY 1919

ENGINEERING · INDUSTRY · COMMERCE · AERIAL AND MARINE NAVIGATION · PUBLIC HEALTH · AGRICULTURE ·

THE ROBERT E. HORTON LECTURER IN HYDROLOGY FOR 2015

P. C. D. (CHRIS) MILLY

Research Hydrologist, U. S. Geological Survey, Princeton, New Jersey.

For contributions to understanding the earth's hydrological cycle, climate-related land-atmosphere processes, and implications of climate trends and variability on hydrology and water resources.

P. C. D. (Chris) Milly is a research hydrologist for the U. S. Geological Survey and a research affiliate at NOAA's Geophysical Fluid Dynamics Laboratory. Research interests include global hydrology, the continental land mass as part of the climate system, modeling of water and energy balances of the continents, unsaturated-zone soil-water transport, and hydrologic aspects of climate change. Milly is a Fellow of AMS and the American Geophysical Union and recipient of the AGU Hydrologic Sciences Award.

THE BERNHARD HAURWITZ MEMORIAL LECTURER FOR 2015

NGAR-CHEUNG LAU

AXA Professor, Geography and Resource Management, The Chinese University of Hong Kong, Shantin N.T., Hong Kong.

For pioneering work on atmospheric circulation systems, from oceanic storm tracks to atmospheric "bridges" connecting ocean anomalies in different basins, using observations and global models.

Ngar-Cheung Lau received the B.Sc. degree in physics from The Chinese University of Hong Kong (CUHK), in 1974, and the Ph.D. degree in atmospheric sciences from the University of Washington in Seattle in 1978. He then went to Princeton and was associated with the research and teaching programs at the NOAA Geophysical Fluid Dynamics Laboratory throughout the 1978-2013 period. He returned to Hong Kong in 2013, to rejoin CUHK as a faculty member.

The Walter Orr Roberts Lecturer in Interdisciplinary Sciences for 2015

Paul B. Shepson
Distinguished Professor, Purdue University,
West Lafayette, Indiana.
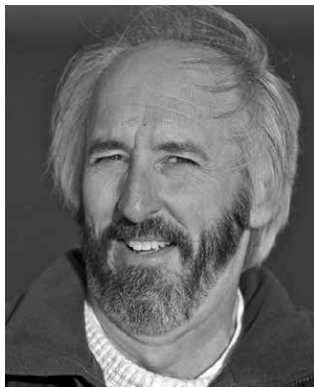
For outstanding and unique contributions to advancing our understanding of the atmospheric processes that govern the Arctic atmospheric boundary layer.

Paul Shepson was born in Elmira, New York. He received his B.S. degree in Chemistry from the State University of NY College at Cortland in 1978, and his Ph.D. in Atmospheric Chemistry from Penn State in 1982. He worked as a Research Chemist at Mobil in 1982, the U.S. EPA from 1982-1987, and then began his academic career at York University in 1987. Since 1994, he has been a Professor at Purdue University.

SPECIAL AWARD
UW-Madison CIMSS Tropical Cyclone Group

For providing the weather community with valuable tropical cyclone-related satellite information and derived products for over two decades.

Left to Right: Christopher Velden, Derrick Herndon, Steven Wanzong, Sarah Griffin, David Stettner, Timothy L. Olander. Far Right, Top to Bottom: Jason P. Dunion, Anthony Wimmers, John Sears.

CHRISTOPHER VELDEN, Senior Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

TIMOTHY L. OLANDER, Associate Instrument Innovator/Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

DERRICK HERNDON, Research Specialist, UW-Madison-CIMSS, Madison, Wisconsin.

ANTHONY WIMMERS, Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

DAVID STETTNER, Associate Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

STEVEN WANZONG, Associate Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

SARAH GRIFFIN, Associate Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

JOHN SEARS, Associate Researcher, UW-Madison-CIMSS, Madison, Wisconsin.

JASON P. DUNION, Meteorologist, University of Miami/CIMAS-NOAA/AOML/Hurricane Research Division, Miami, Florida.

The Award for Outstanding Services to Meterology by a Corporation

Lockheed Martin
Bethesda, Maryland.

For over five decades of outstanding contributions to atmospheric, ocean, and heliophysic science and operational forecasting through production of satellites, radars, sensors, and information technology.

Lockheed Martin is a global security and aerospace company principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. Headquartered in Bethesda, Maryland, the company employs approximately 113,000 people worldwide. Lockheed Martin serves both domestic and international customers with products and services that have applications in defense, space, intelligence, homeland security and information technology, including cyber security.

THE AWARD FOR BROADCAST METEOROLOGY

LISA SPENCER
Chief Meteorologist, WSMV-TV Channel 4,
Nashville, Tennessee.

For her professionalism and long-standing dedication to her viewers and community, through countless outreach efforts and promotion of severe weather preparedness.

Lisa Spencer is chief meteorologist at WSMV-TV Channel 4 in Nashville. She has served Middle Tennessee viewers for the past 14 years, and is known for her calm voice during severe storms. She spearheads an ongoing weather safety outreach program in her area. Lisa has earned the CBM seal from the AMS. She has served as the Chair of the AMS Broadcast Board and on several ad hoc committees relating to the creation and revision of the CBM program.

THE HENRY T. HARRISON AWARD FOR OUTSTANDING CONTRIBUTIONS BY A CONSULTING METEOROLOGIST

STEVEN R. HANNA
Hanna Consultants, Kennebunkport, Maine.

For a distinguished career of providing innovative, pertinent solutions to clients, delivered with utmost integrity and grounded upon broad scientific expertise.

Dr. Hanna received his Ph.D. from Penn State. He is a specialist in atmospheric turbulence and dispersion, in the analysis of meteorological and air quality data, and in the development, evaluation, and application of air quality models. During his career he has worked for NOAA, for ERT, and co-founded Sigma Research Corporation in 1985. Since 1997 he has had his own consulting company, Hanna Consultants, and is an Associate Professor at Harvard School of Public Health.

The Banner I. Miller Award

Fuqing Zhang, Yonghui Weng, John F. Gamache, Frank Marks

For valuable insights into incorporating real-time airborne Doppler radar measurements via ensemble data assimilation, leading to improvements in forecasts of tropical cyclone track and intensity.

Fuqing Zhang, Professor, Pennsylvania State University, University Park, Pennsylvania.

Fuqing Zhang is a professor in the Department of Meteorology and the Department of Statistics at the Pennsylvania State University. He also directs the Penn State center on Advanced Data Assimilation and Predictability Techniques (ADAPT). His research interests include atmospheric dynamics and predictability, data assimilation, tropical cyclones and gravity waves. He has published 140+ peer-reviewed journal papers. He received the AMS Clarence Meisinger Award in 2009 and the AMS Banner Miller Award in 2015. He was elected as a fellow of AMS in 2015.
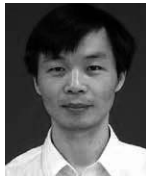
Yonghui Weng, Research Associate, Penn State University, University Park, Pennsylvania.

Dr. Yonghui Weng graduated from Chinese Academy of Sciences and has been working in Penn State University as a research associate for limited area atmosphere data assimilation and hurricane prediction.

John F. Gamache, Meteorologist, NOAA/AOML/HRD, Miami, Florida.

Dr. Gamache, a 1983 graduate of the University of Washington, has been a meteorologist with the Hurricane Research Division of AOML since 1985. He heads the radar group responsible for getting quality-controlled real-time airborne Doppler-radar observations and analyses from NOAA aircraft into operational and research models.

Frank Marks, Director, Hurricane Research Division, AOML/NOAA, Miami, Florida.

Dr. Marks was a Meteorologist at the NOAA/Atlantic Oceanographic and Meteorology Laboratory, Hurricane Research Division since 1980, and Director since 2003. He received a B.S. in Meteorology from Belknap College and a M.S. and Sc.D. in Meteorology from MIT. He joined the AMS in 1971 and became a Fellow in 2000. He was a member of Committee on Radar Meteorology from 1984-91. He was the recipient of the Verner E. Suomi Medal in 2011.

The Helmut E. Landsberg Award

Jeffrey C. Luvall
Senior Research Scientist, NASA Marshall Space Flight Center, Huntsville, Alabama.

Dale A. Quattrochi
Senior Research Scientist, NASA Marshall Space Flight Center, Huntsville, Alabama.

For original contributions and leadership in using high-resolution thermal remote sensing data to understand the urban heat island effect and its environmental consequences.

Dr. Luvall's research has focused on the use of aircraft borne visible thermal sensors to quantify the surface energy budgets. These investigations have resulted in the development of a Thermal Response Number (TRN) that quantifies the land surface's energy response in terms of kJ m-2 C o -1 which can be used as a functional classification of urban surfaces for use in urban climate models.

Dr. Quattrochi received his B.S. from Ohio University, his M.S. from the University of Tennessee, and his Ph.D. from the University of Utah, all in geography. His research focuses on remote sensing of the urban heat island effect and the applications of remote sensing to public health.

The Award for Outstanding Achievement in Biometeorology

Xuhui Lee
Sara Shallenberger Brown Professor of Meteorology, Yale University, New Haven, Connecticut.

For masterfully combining theory and observations to gain new insights into the nature and consequences of biosphere-atmosphere interactions.

Xuhui Lee is the Sara Shallenberger Brown Professor of Meteorology, in the School of Forestry and Environmental Studies, Yale University, and the editor-in-chief for the international journal, *Agricultural and Forest Meteorology*. He received his Ph.D. degree from the University of British Columbia, Canada. His research and teaching concern the interactions between the terrestrial biosphere, the atmosphere, and anthropogenic drivers.

The Award for Outstanding Contribution to the Advance of Applied Meteorology

Jon Davis
Meteorology Team Lead, Chesapeake Energy Corporation, Chicago, Illinois.

For a distinguished career in advancing the application of weather and climate information to the energy, agriculture, and other weather-sensitive industries.

Davis is in his 30th year in the private sector focusing on Applied Meteorology primarily in energy and agricultural. His 18 years at Citigroup, 10 years at Chesapeake Energy, and now Meteorology Team Lead at Earth Risk Technologies were, and continue to be, highlighted by adopting the findings of theoretical research to suit specific applications within the global energy and global agricultural arenas. During the past three decades, the thousands of speeches, reports, and studies by Davis and his teams have helped to "educate" the private sector to a large degree.

THE FRANCIS W. REICHELDERFER AWARD

RICHARD SMITH

Warning Coordination Meteorologist, NOAA/NWS Forecast Office, Norman, Oklahoma.

For vision, long-standing dedication, and the use of innovative technologies to enhance public safety in preparing for, and responding to, severe weather.

Rick is the Warning Coordination Meteorologist at NWS Norman, Oklahoma, and leads the office's decision support, preparedness, and outreach activities. His specialties include communication and societal response to hazardous weather. A graduate of the University of Memphis, Rick has been with the NWS since 1992, and worked in Memphis, Tulsa, and Fort Worth before assuming his current position in 2002. Rick lives in Norman with his wife, Christina, their four children, and two dogs.

THE NICHOLAS P. FOFONOFF AWARD

ANDREW HOGG

Associate Professor, Australian National University, Acton, Canberra, Australia.

For fundamental advances in understanding the impact of ocean eddies on the large-scale circulation, flow through straits, and turbulent mixing.

Dr. Hogg undertook his Ph.D. at the University of Western Australia, investigating the dynamics of flow through ocean straits. His postdoctoral years were spent at the National Oceanography Centre, Southampton, and involved a shift towards researching large-scale ocean circulation. In 2004, he moved to the Research School of Earth Sciences at the Australian National University. His primary research interests include the dynamics of the Southern Ocean, and the role of eddies in the climate system.

The Henry G. Houghton Award

Yi Ming
Head, Atmospheric and Climate Group, NOAA/Geophysical Fluid Dynamics Laboratory, Princeton, New Jersey.

For major advances in the understanding and modeling of the role of atmospheric aerosols in the radiative forcing of regional and global climate.

Yi Ming received his Bachelor degrees from Tsinghua University, and Ph.D. from Princeton University. He is the Head of the Atmospheric Physics and Climate Group at the NOAA/Geophysical Fluid Dynamics Laboratory, and a Lecturer in the Atmospheric and Oceanic Sciences Program at Princeton University. His previous honors include the Presidential Early Career Award for Scientists and Engineers, and the World Meteorological Organization Norbert Gerbier-MUMM International Award. He has authored more than 50 peer-reviewed papers.

The Clarence Leroy Meisinger Award

Paul Markowski
Professor of Meteorology, Pennsylvania State University, University Park, Pennsylvania.

For advancing knowledge about the genesis of tornadoes through a rich mix of observations, theory, and numerical modeling.

Paul Markowski is a Professor of Meteorology at the Pennsylvania State University, where he specializes in severe storms research. He is the recipient of the NWA's Fujita Award, ESSL's Dotzek Award, AMS Editor's Award, and NSF's CAREER Award. He also co-organized the second Verification of the Origins of Rotation in Tornadoes Experiment (VORTEX2), has co-authored a textbook, Mesoscale Meteorology in Midlatitudes, and serves as Chief Editor of *Weather and Forecasting*.

The Joanne Simpson Mentorship Award

Eugenia Kalnay
Distinguished University Professor, Atmospheric and Oceanic Science, University of Maryland, College Park, Maryland.

For effectively mentoring many early career scientists, with her unstinting generosity of time and attention in providing advice, encouragement, leadership, and inspiration.

Eugenia was born in 1942 in Buenos Aires where she received an outstanding free science education. At MIT she was the first woman to earn a Ph.D. in Meteorology, under Jule Charney, and the first to become Professor. She became Branch Head at NASA Goddard (1979-1986), and Director of NOAA/NCEP/EMC (1987-1997). She is a Distinguished University Professor at UMD, member of the UN Scientific Advisory Board on Sustainability, and has advised 26 doctoral students.

The Kenneth C. Spengler Award

Barry Lee Myers
Chief Executive Officer, AccuWeather, Inc., State College, Pennsylvania.

For outstanding, highly principled leadership of the American weather industry over five decades and fostering strong cooperation between private sector and government weather services.

Barry Lee Myers is the Chief Executive Officer of AccuWeather, Inc., a position he has held since late 2007. AccuWeather is an American iconic brand now known around the world and is the globe's largest mobile weather provider. Known for its precision and accuracy, it is estimated that AccuWeather information is accessible on about 1.5 billion devices. Recognized as an expert in public/private relationships in the weather and weather media industry worldwide, Mr. Myers has served as special advisor to three separate directors of the National Weather Service. He has been an invited speaker at the World Meteorological Organization and the World Federation of Scientists, on the topics of weather data exchange and public-private sector relationships.

The Charles E. Anderson Award

Dr. Kevin Kloesel
Director, Oklahoma Climatological Survey,
Norman, Oklahoma.

For over two decades of dedication to engaging minority and under-represented groups in the atmospheric sciences through community outreach and academic leadership.

As Director of OCS, Kevin is charged with providing weather and climate data, analysis, and expertise to stakeholders and decision makers throughout Oklahoma. His teaching interests include an OU Presidential Dream Course on indigenous perspectives of earth sciences. Kevin also provides weather forecasts and weather safety information and education to the OU Office of Emergency Preparedness before, during, and after weather threats of all types on the OU campus.

The Cleveland Abbe Award For Distinguished Service to Atmospheric Science

Dixon Matlock Butler
Consultant, Butler Consulting, Washington, DC.

For visionary, dedicated leadership in Earth observation, science education, and federal management of science which has had lasting impact on the development of Earth System Science.

Dr. Butler received degrees from Harvard and Rice and joined NASA in 1976 where he did ozone depletion research, managed stratospheric and solar terrestrial research, led the planning of EOS, and oversaw all Earth science satellite operations and data systems and the early development of EOSDIS. From 1996 to 2003 at GLOBE, he was Chief Scientist and eventually Director. From 2003 through 2010, Dr. Butler served on the staff of the House Committee on Appropriations.

THE EDWARD N. LORENZ TEACHING EXCELLENCE AWARD

GARY M. LACKMANN

Professor, Atmospheric Sciences, North Carolina State University, Raleigh, North Carolina.

For his passion and extraordinary commitment to teaching and mentoring students, and his ability to make complex material lucid and approachable.

Dr. Gary Lackmann is a Professor and Director of Graduate Programs, Department of Marine, Earth, & Atmospheric Sciences, North Carolina State University. Dr. Lackmann earned B.S. and M.S. degrees from the University of Washington, and a Ph.D. from the State University of New York, University at Albany. Prior professional appointments include a postdoctoral position at McGill University and a faculty position at SUNY, College at Brockport. He joined the North Carolina State University faculty in 1999.

THE CHARLES FRANKLIN BROOKS AWARD

DAVID P. JORGENSEN

Meteorologist, NOAA/National Severe Storms Laboratory, Norman, Oklahoma.

For over two decades of substantial contributions to, and visionary leadership of, the Society's all-important scientific publication process, including tireless service as Publications Commissioner (2007-2012).

Jorgensen is a research meteorologist and Chief of the Warnings R&D division of NOAA's National Severe Storms Laboratory in Norman, OK. His research career has spanned 40 years, first with the National Hurricane Research Laboratory in Miami, with NOAA's Boulder labs, finally with the NSSL in Norman. He has published about 60-refereed articles in AMS journals and monographs. He has served in several capacities for the AMS including program chair of the 1991 AMS Radar Conference in Paris, France; Co-Chief Editor for *Monthly Weather Review* for a decade; and on the AMS Publications Commission for the last 16 years.

The Henry Stommel Research Award

Glenn R. Flierl

Professor, Physical Oceanography, Massachusetts Institute of Technology, Cambridge, Massachusetts.
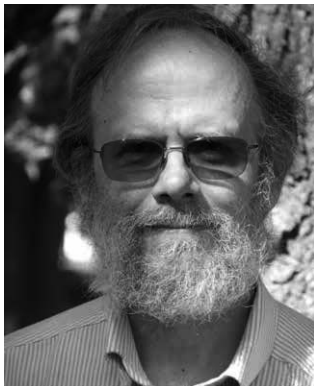
For fundamental insights into the dynamics of vortices and geostrophic turbulence and their impact on marine ecosystems.

While a physics student at Oberlin, Flierl spent summers in Falmouth, Massachusetts, with their light opera company and discovered that physicists could study the oceans. The graduate physics program at Harvard offered that opportunity. Allan Robinson introduced Flierl to the field of GFD, while studying the Gulf Stream Rings, in collaboration with the Ring Group that led to examining the impact of the flow on the ecosystem. Fascinating problems remain in both areas.

The Verner E. Suomi Award

Frank J. Wentz

CEO, Remote Sensing Systems, Santa Rosa, California.

For pioneering, painstaking work to accurately retrieve geophysical parameters from satellite microwave instruments and using these measurements to elucidate climate trends.

Mr. Wentz is the CEO of Remote Sensing Systems (RSS), a company specializing in microwave remote sensing of the Earth. Using microwave observations from over 35 satellites, RSS produces climate records of atmospheric temperature/moisture and sea-surface temperature/winds. These satellite records span 35-years and contribute significantly to the IPCC Assessment Reports. He is an author on over 100 refereed articles and is an Elected Fellow of AGU and AMS.

THE SVERDRUP GOLD MEDAL

CLAUDE FRANKIGNOUL
Emeritus Professor, University Pierre et Marie Curie,
Paris, France.
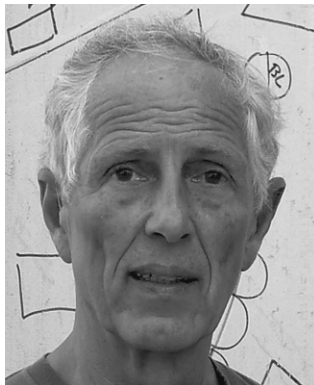
For profound contributions to the understanding of the atmosphere's stochastic forcing of the ocean and the ocean's feedback.

Claude Frankignoul is professor Emeritus at the University Pierre et Marie Curie in Paris, member of the Institut universitaire de France, and adjunct scientist at WHOI. Prior to joining UPMC, he worked at the Max-Planck-Institute für Meteorologie, Hamburg, and at MIT. Current research foci include the ocean response to stochastic atmospheric forcing, the Atlantic meridional overturning circulation, and the ocean influence on the atmosphere, using theoretical models and statistical analysis of observations and climate models.

THE JULE G. CHARNEY AWARD

ALAN ROBOCK
Distinguished Professor, Rutgers University,
New Brunswick, New Jersey.

For fundamental contributions toward understanding the climatic effects of stratospheric aerosols from volcanoes and other potential sources, and the role of soil moisture in climate.

Dr. Alan Robock is a Distinguished Professor of climate science in the Department of Environmental Sciences at Rutgers University. He graduated from the University of Wisconsin, Madison, in 1970 with a B.A. in Meteorology, and from the Massachusetts Institute of Technology with an S.M. in 1974 and Ph.D. in 1977, both in meteorology. Before graduate school, he served as a Peace Corps Volunteer in the Philippines. He was a professor at the University of Maryland, 1977-1997, and the State Climatologist of Maryland, 1991-1997, before coming to Rutgers.

The Carl-Gustaf Rossby Research Medal

Bin Wang

Professor, Department of Atmospheric Sciences,
University of Hawaii, Honolulu, Hawaii.

For creative insights leading to important advances in the understanding of tropical and monsoonal processes and their predictability.

Bin Wang is a Professor at University of Hawaii. He obtained his Ph.D. in Geophysical Fluid Dynamics from Florida State University in 1984. He specializes in Climate and Atmospheric Dynamics. Wang was elected Fellow of the American Meteorological Society and elected Fellow of the American Geophysical Union for seminal contributions to scientific understanding of the dynamics and predictability of monsoon and tropical climate. His publications have been cited more than 20,000 times with an h-index of 78 (Google Scholar).

Honorary Member

Richard A. Anthes

President Emeritus, University Corporation for Atmospheric Research, Boulder, Colorado.

Winner of the AMS Meisinger and Charney Awards, Rick served as president of the AMS in 2007. He has published over 100 peer-reviewed articles and books. He developed the first 3-D model of the hurricane and was the father of the Penn State-NCAR mesoscale model MM5. He was a key player in the radio occultation proof-of-concept GPS/MET experiment and the Constellation Observing System for Meteorology Ionosphere and Climate (COSMIC), which launched six satellites in 2006.

Honorary Member

Elbert (Joe) Friday
Professor Emeritus, University of Oklahoma, Norman, Oklahoma.

Elbert W. Friday, Jr. is Professor Emeritus at the University of Oklahoma. He is a Past President and Fellow of the AMS. He has served as the Director of the Board on Atmospheric Sciences and Climate at the National Academy of Sciences, the Director of NOAA Research, the Director and Deputy Director of the National Weather Service, and U.S. Permanent Representative to the World Meteorological Organization. He completed a 20-year career in the United States Air Force, retiring with rank of Colonel in 1981.He is the recipient of the Presidential Rank Award of Meritorious Executive, the Federal Executive Institute Alumni Association's Federal Executive of the Year for 1993, and the AMS's Cleveland Abbe Award.

Honorary Member

Eugenia Kalnay

Distinguished University Professor, Atmospheric and Oceanic
Science, University of Maryland, College Park, Maryland.

Eugenia was born in 1942 in Buenos Aires where she received
an outstanding free science education. At MIT she was the first
woman to earn a Ph.D. in Meteorology, under Jule Charney,
and the first to become Professor. She became Branch Head at
NASA Goddard (1979-1986), and Director of NOAA/NCEP/
EMC (1987-1997). She is a Distinguished University Professor
at UMD, member of the UN Scientific Advisory Board on
Sustainability, and has advised 26 doctoral students.