

Urban Meteorology: Forecasting, Monitoring, and Meeting Users' Needs

Committee

John T. Snow

Co-Chair

Dr. John T. Snow is a Regents' Professor of Meteorology and Dean Emeritus of the College of Atmospheric & Geographic Sciences at the University of Oklahoma. He earned both his B.S. and M.S. in Electric Engineering from Rose-Hulman Institute of Technology, and his Ph.D. in Atmospheric Science from Purdue University. Currently, Dr. Snow's professional interests lie in the field of "Earth System Science," merging research in the Earth and Life Sciences to generate a comprehensive explanation for "how the world works." In recent years, Dr. Snow has been involved in a number of local and regional economic development projects and technology transfer efforts. Dr. Snow is involved with a number of professional organizations, serving as an American Meteorological Society (AMS) Fellow, a Royal Meteorological Society Fellow, and a member of the NSF Geosciences Advisory Committee to name a few. The AMS has honored Dr. Snow with the Charles Anderson Award for his efforts in improving education and diversity in the atmospheric sciences, and the Cleveland Abbey Award for his excellent service to both the Society and profession. While his NRC committee membership extends back to the late 1980s, Dr. Snow is currently a member of both BASC and the Panel on Digitization and Communications Science.

Xubin Zeng

Co-Chair

Dr. Xubin Zeng is a Professor in the Department of Atmospheric Sciences at the University of Arizona (UA), as well as the Director of the UA Climate Dynamics and Hydrometeorology Center (CDHC). He holds a Ph.D. in Atmospheric Science from Colorado State University. Through over 100 peer-reviewed publications, Dr. Zeng's research interests include land-atmosphere-ocean interface processes, climate modeling, hydrometeorology, remote sensing, and nonlinear dynamics. He has given over 80 invited talks at conferences and institutions. His research products (including models, algorithms, and value-added datasets) have been used worldwide by numerous groups (including NCAR, NCEP, ECMWF). In addition to being an elected member of the American Meteorological Society's Executive Committee and Council, he was recently named an AMS Fellow. This year, Dr. Zeng was named a Galileo Circle Fellow, the highest recognition awarded by the UA College of Science. Dr. Zeng served on two NRC Committees before. Since 2008, he has also served as a member of the National Academies' Board on Atmospheric Sciences and Climate (BASC).

Petra Klein

Member

Dr. Petra M. Klein is an Associate Professor and Edith Kinney Gaylord Presidential Professor at the University of Oklahoma's School of Meteorology. She earned both her undergraduate degree in Physics and Ph.D. in Civil Engineering from the University of Karlsruhe in Germany. Dr. Klein's research broadly focuses on atmospheric boundary layer research and tropospheric pollution problems. Specific areas of study include urban meteorology, focusing on the modification of the atmospheric boundary layer structure in urban areas; air pollution studies, notably the dispersion of traffic emissions and the long-range transport of Ozone and its precursor pollutants; as well as wind-tunnel modeling of atmospheric flows. Dr. Klein has served as a member and chair of the AMS Board on the Urban Environment, and is currently a Board member of the International Association for Urban Climatology. She is further a member of the Editorial Board of the Journal Environmental Fluid Mechanics, and a reviewer for Atmospheric Environment, Atmospheric Research, Boundary Layer Meteorology, Environmental Fluid Mechanics, Environmental Management, and the Journal of Applied Meteorology.

Stefanie Sarnat

Member

Dr. Stefanie Ebel Sarnat is an Assistant Professor in the Department of Environmental Health at Emory University in Atlanta, GA. She earned both her B.S. and M.S. from the University of British Columbia, and her Doctor of Science from Harvard School of Public Health. Dr. Sarnat's research addresses environmental impacts on human health. With a particular interest in the health effects of air pollution, she is conducting population-based studies in several US cities, including Atlanta, Birmingham, Dallas, and St. Louis, in which she investigates the association between air pollution and health care usage for cardiovascular and respiratory diseases. Her studies have also addressed the impact of automobile-related air pollution on asthmatic children and other susceptible populations, as well as the impacts of climate and meteorological conditions on acute morbidity. Dr. Sarnat is a member of the American Thoracic Society, the International Society for Environmental Epidemiology, and the International Society of Exposure Science.

J. M. Shepherd

Member

Dr. Shepherd is a Professor in the Department of Geography's Atmospheric Sciences Program at the University of Georgia (UGA). Dr. Shepherd earned his B.S., M.S., and Ph.D. in physical meteorology from Florida State University. Prior to joining the UGA Faculty, Dr. Sheppard spent 12 years as a research meteorologist at NASA Goddard Space Flight Center. During that time, he served as Deputy Project Scientist for the Global Precipitation Measurement Mission. Dr. Sheppard is an AMS/TRW Industry and Dolores Auzene Fellow, and National Achievement Scholar. His research interests include the urban climate, tropical precipitating systems, hydroclimate variability, satellite remote sensing of weather and hydroclimate, as well as the development of innovative outreach strategies and applications for research data. In May 2004, Dr. Shepherd was awarded the Presidential Early Career Award for his work on how urban environments affect precipitation. He has since been elected a Fellow of the American Meteorological Society. Dr. Shepherd has well over 65 scholar publications, and he serves as an Editor for the Journal of Applied Meteorology and Climatology. He served on the National Academies of Science Committee on National Security Implications of Climate Change on U.S. Naval Forces, and presently serves on the NOAA Climate Working Group, the University Space Research Association Earth Science Advisory Committee, and is a Project Associate for the Urbanization and Global Environmental Change project.

Ellis M. Stanley, Sr.

Member

Mr. Ellis M. Stanley, Sr. is the Vice President of Western Emergency Management Services at Dewberry's office in Los Angeles. Dewberry is a respected professional services firm that serves both the public and private sectors. Mr. Stanley has been directing emergency management programs for over thirty years, including ten years spent as the general manager for the Los Angeles Emergency Preparedness Department. He earned his bachelor's degree in political science from the University of North Carolina, Chapel Hill, and recently received an honorary doctoral degree for public service from the University of Maryland Eastern Shore (UMES). Mr. Stanley is a faculty member at both Harvard University and American University, where he teaches meta-leadership, and senior crisis management, respectively. In addition, he serves on board of directors for the National Institute of Urban Search and Rescue, and the board for the Disaster Recovery Institute International. He also is a member of Operation Hope, Inc. and the American Red Cross of Greater Los Angeles.