CURRICULUM VITAE
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EDUCATION

- Ph.D. 2004: The Pennsylvania State University, USA (Meteorology).
- B.S. 1998: Beijing (Peking) University, Beijing, P.R. China (Atmospheric Science).

PROFESSIONAL EXPERIENCE

- 2019-Present: Robert Lowery Chair Professor, University of Oklahoma, OK
- 2018-Present: Full Professor (tenured), University of Oklahoma, Norman, OK
- 2014-2018: Associate Professor (tenured), University of Oklahoma, Norman, OK, USA
- 2014-Present: Presidential Research Professor, University of Oklahoma, Norman, OK, USA
- 2009- 2014: Assistant Professor (tenure track), University of Oklahoma, Norman, OK, USA
- 2004- 2008: Research Scientist, NOAA Earth System Research Laboratory and University of Colorado, Boulder, CO

RESEARCH INTERESTS

(i) developing new techniques and novel methodologies for data assimilation and ensemble prediction;
(ii) applying these techniques to global scale to convective scale modeling systems assimilating a variety of observations (radar, satellite, ground based remote sensing platforms, aircraft borne observations, UAV, in-situ, etc.) to improve predictive skill;
(iii) improving the understanding of atmospheric predictability and dynamics through data assimilation and ensemble approaches from global to storm scales;
(iv) transitioning research and development into operations (R2O);
(v) Interdisciplinary research: machine learning, economic values of numerical predictions

SELECTED MAJOR HONORS, AWARDS AND RECOGNITIONS

- 2020 Elected WMO WWRP Predictability, Dynamics and Ensemble Forecasting working group member
- 2019 Robert Lowry Chair Professor, University of Oklahoma

- Top 10 most impactful atmospheric scientists in the world based on the ISI Web of Science productivity and impact analysis by Chinese Academy of Science for papers published during 2011-2015.
- Wang et al. 2013 noted as "most read in the last 12 months" by Monthly Weather Review
- 2014 Presidential Research Professorship Award, University of Oklahoma
- 2014 Invited speaker of National Academy of Sciences Kavli Frontiers of Science (declined due to family commitment)
- 2012 Dean's Award for Excellence in Research and Scholarship, University of Oklahoma, USA
- 2010 NASA New Investigator Award, USA
- 2007 Innovative Research Program Award, University of Colorado/CIRES, USA

SELECTED MAJOR LEADERSHIP ACTIVITIES

- Leading and directing an 18-member research team, "**M**ultiscale data **A**ssimilation and **P**redictability (***MAP***) Lab", at University of Oklahoma.
- Co-lead the data assimilation team in US National Weather Service (NWS) National Oceanic and Atmospheric Administration (NOAA) Hurricane Forecast Improvement Program (HFIP) (2012-present)
- UCAR/NOAA/NSF Developmental Testbed Center (DTC) Science Advisory Board (2017-Present)
- US National Science Foundation (NSF) User Advisory Committee (UAC) for XSEDE (Extreme Science and Engineering Discovery Environment) high performance computing (2016-present)
- US National Science Foundation (NSF) XSEDE (Extreme Science and Engineering Discovery Environment) high performance computing User Requirements, Evaluation and Prioritization (UREP) team (2020-present)
- US Unified Forecast System (UFS) Strategic Implementation Planning (SIP) working groups for data assimilation, convection allowing modeling, verification, and ensemble (2017-present)
- Nation-wide joint effort for data assimilation initiative (JEDI) working groups 2017
- 2022 AMS NWP/WAF conferences planning committee, 2020-present
- AMS annual conference session chair, 2013, 2014, 2015, 2017, 2019, 2020
- Session chair, steering committee, panelist, advisory for 18 national and international workshops
- Member, WMO WWRP Predictability, Dynamics, and Ensemble Forecasting working group, 2020-present
- Associated Editor for Monthly Weather Review, reviewer for various journals and for various funding agencies

COMMUNITY PUBLIC CODE RELEASE AND R2O EFFORTS

- Hybrid ETKF-variational data assimilation system for the community Weather Research and Forecasting (WRF) model (released since 2008, collaborative efforts with NCAR and NOAA).

- Hybrid data assimilation system for US NWS operational Global Forecast System (GFS) (operational since 2012, collaborative MAP efforts with NOAA and NASA).
- Hybrid data assimilation system for the US NWS convection-allowing hurricane prediction system HWRF (operational since 2017, collaborative MAP efforts with NOAA).
- Direct ground based radar data assimilation capability for operational HWRF (operational since 2020, collaborative MAP efforts with NOAA)
- Direct ground based radar data assimilation capability for operational HRRR (operational since 2020, collaborative MAP efforts with NOAA)

SELECTED NEWS COVERAGE OF MAP LAB RESEARCH

"Fine-tuning forecasts of nighttime storms on plains", https://nsf.gov/discoveries/disc_summ.jsp?cntn_id=138006&org=NSF, https://phys.org/news/2016-04-fine-tuning-nighttime-storms-plains.html, https://www.tacc.utexas.edu/-/fine-tuning-forecasts-of-nighttime-storms-on-the-plains,

FUNDED GRANTS

48 awarded grants from NOAA, NSF, NASA, DOD with a total amount of $17.4 million

REFEREED PUBLICATIONS

- Published 88 peer reviewed journal articles and peer reviewed book chapters. See http://weather.ou.edu/~map/js/publication.html
- 10 additional papers accepted with revision and/or submitted.
- 20+ additional papers in preparation.
- Most papers led by students and postdocs advised.
- Wang et al. 2013 noted as "most read in the last 12 months" by Monthly Weather Review, and ranked top 2% out of ~1300 papers published in Monthly Weather Review in the last 5 years (2012-2017) in terms of number of access

STUDENT AND POSTDOC ADVISING AND SELECTED TEACHING

- OU Postdocs advised: 19
- OU MS students advised: 12
- OU Ph.D. students advised: 13
- Undergraduate research advised: 4
- International visiting Ph.D. students advised: 5
- Other OU Graduate Student Committees (not chair) served on: 47
- Students advised have won 23 various AMS awards, national fellowship, OU dissertation and publication awards, academic performance awards etc. (see http://weather.ou.edu/~map/js/news.html)
- Supervised postdocs and early career scientists to develop awarded lead PI and Co-PI proposals.
- Teach OU senior under-graduate atmospheric dynamics class; develop and teach a new OU graduate class on data assimilation

SELECTED OUTREACH ACTIVITIES

- 2014: developed and implemented a video for numerical weather prediction and data assimilation for middle school and high school students through the National Weather Center (NWC) outreach program.

INVITED KEYNOTE SPEECHES, SEMINARS, TALKS: 62

CONFERENCE PRESENTATION: 275