

JUN WANG

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<http://arroma.uiowa.edu>; <https://scholar.google.com/citations?user=2bYutiAAAAAJ&hl=en>

EDUCATION (INCLUDING POSTDOC)

2005-2007	Postdoc Fellow, Harvard University; School of Engineering & Applied Sciences
1999-2005	Ph.D., Atmospheric Science, University of Alabama in Huntsville
1996-1999	M.S., Institute of Atmospheric Physics, Chinese Academy of Sciences
1992-1996	B.S., Nanjing University of Information Science and Technology, China

EMPLOYMENT/WORK EXPERIENCE

8/2022-present	Interim Department Executive Officer (Chair), Dept. of Chemical and Biochemical Engineering, U. Iowa.
8/2020-present	<i>James E. Ashton Professor</i> , College of Engineering, University of Iowa (U. Iowa)
8/2018-present	<i>Assistant Director</i> , University of Iowa Technology Institute (formerly Center for Computer-Aided Design)
8/2016-present	<i>Professor</i> , Dept. of Chemical and Biochemical Engineering (tenure home), U. Iowa
8/2022-present	<i>Professor (secondary)</i> , Dept. of Electric and Computer Engineering, U. Iowa
8/2019-present	<i>Professor (secondary)</i> , Applied Mathematical & Computational Sciences graduate program, U. Iowa
8/2016-present	<i>Professor (secondary)</i> , Informatics graduate program, U. Iowa
8/2017-present	<i>Professor (secondary)</i> , Dept. of Civil and Environmental Engineering, U. Iowa
1/2018-present	<i>Professor (secondary)</i> , Dept. of Physics and Astronomy, U. Iowa
8/2015- 8/2016	<i>Susan J. Rosowski Professorship</i> (university level), University of Nebraska-Lincoln (UNL)
4/2015-8/2015	<i>Visiting faculty</i> , Lab for Atmospheric Chemistry Observations & Modeling, National Center for Atmospheric Research (NCAR)
8/2013-8/2016	<i>Associate Professor</i> , Department of Earth & Atmospheric Sciences, UNL
8/2007-7/2013	<i>Assistant Professor</i> , Department of Earth & Atmospheric Sciences, UNL
6/2010-7/2010	<i>Visiting Faculty</i> , NOAA Joint Center for Satellite Data Assimilation
4/2009-8/2009	<i>Visiting Faculty</i> , Climate and Global Dynamics Division, NCAR
1/2008-8/2008	<i>Yoram Kaufman Visiting Research Scientist</i> , Goddard Earth Science and Technology Center (GEST), University of Maryland - Baltimore County (UMBC)
2005-2007	Work at Lab for Atmospheres (613.2), NASA Goddard Space Flight Center <i>NOAA Climate and Global Change Postdoctoral Fellow</i> , UCAR Visiting Scientist Program
1999-2005	Work at Harvard University <i>Graduate Research Assistant</i> , Department of Atmospheric Sciences, University of Alabama in Huntsville

GRANTS AND CONTRACTS

PI or co-PI of 61 research projects funded by federal agencies (NASA, NOAA, NSF, USDA, DoT, and DoD), the private sectors (Ball Aerospace, Raytheon, IBM, etc.), and non-profit organizations (such as EarthWatch). Co-I (or institutional PI) of ~16 other federally funded projects. Discretionary \$18.5M (to Wang's lab) out of \$236M from all projects in total as PI, co-PI, or co-I since 2003.

OUTREACH AND COMMUNICATION

Passionate about communicating science and research to the public. [Have been interviewed by NASA, American Geophysical Union \(AGU\), TV and radio stations, newspaper, and other media.](#)

2023	Interviewed by local TV station KGRC on “Univ. of Iowa Professor helps develop Time Magazine Invention of the Year”.
2023	Interviewed by several medias on “Wildfires have erased two decades' worth of air quality gains in western US” for the paper published on <i>Lancet Planetary Health</i> . The research findings were reported by more than 60 media outlets including CBS, the Hills, etc.
2022	Interviewed by American Geophysical Union (AGU) EOS magazine on NASA’s TEMPO mission.
2022	Interviewed and reported by Daily Iowans on the research project “next leap forward” for the NOAA’s satellite mission planning to study aerosol plume height in 2030s.
2021	Interviewed by KGAN/CBS, “Iowa research detecting wildfires before they rapidly grow”.
2021	Interviewed by 1540 KXEL Radio on space research and exploration following the launches of Virgin Galactic and Blue Origin.
2021	Interviewed by Daily Iowan, “NASA grants research fellowship to UI grad student to track nighttime air quality”
2021	Interviewed by Iowa Now, “UI engineer wins NASA funding to study effects of wildfires”
2021	Author, “Unprecedented fire season”, in 2020 Annual Report of Center for Global and Regional Environmental Research
2021	Interviewed by Iowa State University, “Iowans advise NASA on which satellites should stay in orbit”
2019	Showcased the precision farming project to the state legislatures during their visits to U. Iowa in coordination with the VPR office.
2019	Panelist on WorldCanvass talk: "Joint UI-ISU research to provide weather/soil intelligence to Iowa’s farmers", with U. Iowa VPR Prof. J. Martin (Marty) Scholtz and Prof. Brian Hornbuckle (Iowa State University). Made available through podcast to PRX and iTunes. Further interviewed by two local TV stations, KCRG and KWWL, and the Daily Iowan on smart sensing for farming.
2018	Interviewed by IowaNow: “UI researchers explain ammonia distribution in Earth’s upper atmosphere”.
2017	Interviewed by NASA Earth Observatory for “Finding fires before they rage”.
2016	Interviewed by Nebraska Today: “Fires a growing threat to air quality”.
2015	Interviewed by UNL for “Monitoring the planet’s air”
2009	Sole organizer and host of “View Atmosphere from Space” summer workshop for ~30 K-12 teachers in the midwest (as part of a NASA project).

DEI, TEACHING, & ACADEMIC SERVICES

- Chair of DEI committee in Iowa Technology Institute in UIowa 2021 - 2022, focuses on DEI matters in research settings, including resources and support for international students and scholars in the midst of pandemic.
- Alumni of Wang’s lab include 49 in total of undergraduates, graduate, and scholars, in which 19 or (40%) are female (https://arroma.uiowa.edu/the_alumni.php)
- Current members of Wang’s lab include 19 people in in which 9 (~50%) are female. All research staff and postdoctoral researcher (4 in total) are female in Wang’s lab (https://arroma.uiowa.edu/the_team.php).
- Have developed and taught ~10 courses on different subjects from statistics, satellite image processing, and thermodynamics to particle scattering, radiative transfer, data assimilation, atmospheric chemistry, atmospheric chemistry modeling, and machine learning. Taught 7 different courses in UIowa, including new courses (for Prof. Wang when he joined U. Iowa) such as atmospheric modeling for graduate students, machine learning and thermodynamics for undergraduates.
- Served on multiple committees at departmental, college, and university level. Severed as committee chair for faculty and staff hires. Familiar with processes and procedures for peer evaluation, tenure, promotion, as

well as award nomination and recognition, student advising and graduation, and all other routine departmental work as an academic faculty.

RESEARCH INTERESTS AND APPROACHES

Interest:	Interaction between atmospheric composition and climate change. Impacts of aerosols on air quality, weather, and climate. Interdisciplinary research related to cloud and trace gases, air quality and public health, irrigation, land use, fire, and precision agriculture, and climate change.
Approaches & Specialty:	Remote sensing from different (ground, sub-orbital, and orbital) platforms, meteorology-chemistry coupled modeling, data assimilation, and inverse modeling. Specialized in fire and aerosol remote sensing.

HONORS, AWARDS, & RECOGNITIONS

- One of ~20 investigators on TEMPO that is named by Time magazine as one of the best inventions of 2023. TEMPO, or Tropospheric Emissions: Monitoring of Pollution, is satellite mission led by Kelly Chance at the Harvard & Smithsonian Center for Astrophysics, and was launched by SpaceX in Cape Canaveral, Florida on 7 April 2023. Prof. Wang was invited by NASA to watch the launch.
- Appointed by NASA as one of 13 members of the NASA Earth Science senior review panel, 2023.
- [AGU ASCENT Award](#) for “seminal and innovative remote sensing of fires and aerosols and outstanding contributions to the understanding of emissions, air quality, and climate impacts”, American Geophysical Union (AGU), 2022.
- Journal highlight article selected and summarized by Editor-in-Chief of *GeoHealth* [for the AGU Science News magazine Eos, July 2022.](#)
- Invited by John D. and Catherine T. MacArthur Foundation as a reviewer (2002) and invited nominator (2023) for MacArthur Fellows Program
- [“The most popular session convener”](#), the Asia Oceania Geosciences Society annual meeting, 2023.
- [“The most popular session convener”](#), the Asia Oceania Geosciences Society annual meeting, 2022.
- [“The most popular session convener”](#), the Asia Oceania Geosciences Society annual meeting, 2021.
- Journal cover article, *Environmental Science and Technology*, May 2021.
- Member of NASA’s Health and Air Quality Applied Science Team since 2021.
- Finalist for Charles C. Shephard CDC award for “exceptional approach to solving a public health problem”, 2020.
- Certificate for “professionalism, dedication, and teamwork demonstrated in support of the Atmospheric Chemistry Committee”, AMS, 2020.
- Journal cover article, *Atmosphere*, March 2020.
- Appointed by NASA as one of 13 members of the NASA Earth Science senior review panel, 2020.
- Journal highlight article, *Atmospheric Measurement Technique*, June 2019.
- 2019 Faculty Excellence Award for Research “in recognition of extraordinary contribution to the College and the University”, College of Engineering, U. Iowa.
- 2018 U. of Iowa Innovator Award
- AGU 2017 Editors’ Citation for Excellence in Refereeing
- Appointed by NASA as one of 14 members of the NASA Earth Science senior review subcommittee, 2017.
- Science team member for various NASA satellite missions including Glory (2010–2013), Suomi-NPP (since 2011), TEMPO (since 2012), Aura (2014), DSCOVR (since 2014), CLARREO (since 2014), MAIA (since 2016), Terra and Aqua (since 2018), and SAGE/ISS (since 2021).
- Journal cover article, *IEEE Transactions on Geoscience & Remote Sensing*, Sept. 2016.
- Journal cover article, *IEEE Geoscience and Remote Sensing Letters*, June 2015.
- Susan J. Rosowski Professorship Award in recognition of “distinguished scholarship and creative activity,” UNL, 2015.

- Alan Berman Research Publication Award (for a co-authored paper), Naval Research Lab, 2014.
- J. B. Hoffman Faculty of Excellence award, Dept. of Earth & Atmospheric Sciences, UNL, 2013.
- NASA Group Achievement Award – Suomi-NPP “for extraordinary dedication, skill, teamwork, and perseverance in developing and delivering the Suomi NPP Mission for the Nation,” 2014.
- NASA Group Achievement Award –TEMPO “for success in capturing a major competitively awarded Earth Science Venture Class mission through outstanding professionalism and technical excellence,” 2013.
- Academic Star award for “taking the art of mentoring to new heights” and “bringing extraordinary collegiality and significant research funding,” College of Arts and Sciences, UNL, 2009.
- Yoram Kaufman Visiting Scientist/Faculty Fellowship, NASA Goddard Space Flight Center / Goddard Earth Sciences & Technology Center, UMBC, Jan. 2008 - Aug. 2008.
- NASA New Investigator Award, 2008.
- NOAA Climate and Global Change Postdoctoral Fellowship, 2005.
- NASA Earth System Science Graduate Student Fellowship, 2003.
- Student poster award, AMS 13th Conference on Satellite Meteorology and Oceanography, 2004.
- Best graduate research assistant award, University of Alabama – Huntsville, 2003.
- Best student poster award, AMS 12th Conference on Satellite Meteorology and Oceanography, 2002.

PROFESSIONAL ACTIVITIES AND SERVICES

Session Chairs/Conveners: IEEE Geoscience and Remote Sensing Society 2020-2022; GEOS-Chem meetings (2018, 2016, 2014, 2012, 2010), AMS 2015- 2022, AGU Fall 2005, 2009, 2011, and 2014-2018, 2021, AOGS 2015, 2016, & 2019-2021, Goldschmidt 2014, NCAR ECSA Junior Faculty Forum on Future Scientific Directions 2010, EastFIRE conference 2010.

Proposal panel reviewer: NOAA, NASA, DOE, and NSF (in average 2.5 times per year since 2008). NASA Senior Review for Earth Science Division (2017, 2020).

Proposal non-panel reviewer: NSF, NOAA, NASA, DoD (Navy and Army), [Graduate Women in Science \(GWIS\) National Fellowship Program](#) Fellowship Competition (2022), UK Natural Environment Research Council (2011), Office for Space Technology and Industry of Singapore (2013), The Netherlands Organization for Scientific Research (2010), Swiss National Science Foundation (2016), Instituto Serrapilheira (2017), Germany Deutsche Forschungsgemeinschaft (DFG, 2018, 2019)

Committees: AMS Atmospheric Chemistry Committee (2014 – 2019), Hyperspectral Imaging and Sounding of the Environment (HISE) Committee for the Optical Society of America (2014), AMS committee on satellite meteorology, oceanography, and climatology (2019 – present)

Leaderships: Co-lead for NASA GEO-CAPE aerosol working group (2012-2018), Atmospheric Environment (journal) editorial advisory board (2012-), Member of Harvard GEO-Chem model steering committee (2012-), and Co-Lead for GEOS-Chem data assimilation and adjoint modeling group.

Editorships: Associate Editor (2022-) and Guest Associate Editor (2020-2021) for J. Geophys. Res. – Atmosphere, Editor and Atmospheric section board member for *Remote Sensing* (2018-), Associate Editor for *Atmospheric Measurement Technique* (2018-), Editor for *Earth Science Review* (2018-), New Direction section editor for Atmospheric Environment (2013-2017), Guest editor for *Remote Sensing* (special issue for remote sensing of air pollution, 2016-2017; special issue for remote sensing of fires and atmospheric composition in Asia, 2019-2020).

Memberships: American Geophysical Union and American Meteorological Society since 1999.

Frequent (30+ /yr since 2005) reviewer: Atmospheric Measurements Technique, Journal of Quantitative Spectroscopy & Radiative Transfer, Journal of Atmospheric Science, Journal of Geophysical Research, Geophysical Research Letter, Atmospheric Research, Atmospheric Environment, Atmospheric Physics and Chemistry, Quarterly Journal of Royal Meteorological Society, Annales Geophysicae, Remote Sensing Environment, Tellus, Journal of Selected Topics in Earth Observations and Remote Sensing, Applied Optics, Advances in Atmospheric Sciences, Remote Sensing, Aerosol Science and Technology, Transactions on Geoscience and Remote Sensing, Environmental Science & Technology, Frontiers of

Earth Science, Total Environment, Proceedings of the National Academy of Sciences, Nature Geosciences, Nature Food, Science Advances, Scientific Report.

UNIVERSITY/COLLEGE SERVICES

Committees at UIowa: Co-Chair, Search Committee for Dean of College of Engineering (2023); Search Committee for Senior HR Hire, College of Engineering (2022); Governmental Relations Committee, University of Iowa (2020-); College of Engineering Dean's Advisory Faculty Promotion and Tenure Committee (2021-2022); CBE Faculty Search Committee Chair (2021-2022); CBE Graduate Admission Committee (2021-2022); College of Engineering Advisory Committee for Associate Dean for Research (2019-2022); Chair, Search Committee for Communication Specialist for CCAD (2020), College of Engineering; Inaugural Chair, DEI committee in Iowa Technology Institute, 2021 – 2022; College of Engineering Ad Hoc Committee/Working group for entry-level Machine Learning courses (2018-2020); College of Engineering Dean's Advisory Instructional Faculty Promotion Committee (2018-2020); UIowa Informatics Showcase Organization Committee (2017, 2018); Review Committee for Chemical and Biochemical Engineering Department Executive Officer (Chair) 2017; UIowa High Performance Computing Policy Committee (since 2016); Various Committees in the Department of Chemical and Biochemical Engineering (Research Task Force Committee 2020-2021; Faculty Tenure and Promotion Committee, Post-tenure Review Committee, etc.).

Committees at UNL: UNL Parking Appeal Committee (2012-2016), the advisory board for UNL Super Computing Facility (2010-2016), Department Graduate Committee (2013-2015) and Information Committee (2009-), Department Salary Advisory Committee (2010), Department faculty search committee (2008).

July-Sep. 2014, UNL Co-Lead 3-day “Environmental Characterization” workshop sponsored by UNL’s Office for Research and Development (ORED) and School of Natural Resources.

TEACHING IN UNIV. OF IOWA

Undergraduate only: ENGR2130, Fundamentals of Engineering III: Thermodynamics (co-teach)
ENGR2995, Intro to AI and Machine Learning in Engineering (co-teach)
CBE3020, Applied Statistics for Chemical & Natural Resources Eng.

Graduate & Undergraduate: CBE5415, Satellite Image Processing & Remote Sensing of Atmosphere
CBE5417, Physical Meteorology and Radiative Transfer
CBE3415, Statistical & Computational Analysis of Weather & Climate Data

Graduate only: CBE6415, Advanced Satellite Remote Sensing
CBE6435, Atmospheric Radiative Transfer
CBE5412, Atmospheric Modeling

TEACHING IN UNIV. OF NEBRASKA - LINCOLN

Undergraduate only: Weather & Climate

Graduate/ undergraduate: Physical Meteorology, Statistical Analysis of Atmospheric Data, Air Pollution, Satellite Remote Sensing of Atmosphere,

Graduate only: Advanced Satellite Remote Sensing, Atmospheric Radiative Transfer

SUPERVISION OF GRADUATE STUDENTS, POSTDOCS & RESEARCH SCIENTISTS

Staff Scientist Xi Chen (2022-), Lorena Garcia (2021-), Huaxing Zhang (2021-), Xiaoguang Xu (2016-2018), Cui Ge (2016-2018)

Current Postdoc Lakhima Chutia (2022-), Zhixin Xue (2022-), Megan Christiansen (2022-)

Current Ph.D. Chengzhe Li, Zhedong Lu, Weizhi Deng, Hyerim Kim (co-advising with G. Carmichael), Qiyu Wang, Steven Tammes, William Julstrom, Sue Park, Yingchieh Chen

<i>Current MS</i>	Shen (Jerry) Wang
<i>Current Undergraduates</i>	Margaret Praska, Hadley Mosby
<i>Past Postdoc:</i>	Sunwook Park (Jan. 2011 – Aug. 2012), Feng Zhang (Aug. 2013 – Dec. 2013), Dong Han (May 2014 – May 2015), Shouguo Ding (2013-2015), Xiaoguang Xu (2015-2016), Cui Ge (2008-2016), Weizheng Hou (2014-2016), Kenneth Christian (2017-2018), Nathan Janecek (2019-2021), Lorena Garcia (2017-2021), Huaxing Zhang (2017-2021), Yi Wang (2019-2021); Jing Wei (2021-2022)
<i>MS completed:</i>	Amy Gehring (2012), Zhifeng Yang (2013), Jacob Anderson, Phil Mykleby (co-advising with John Lanterns), Eric Holt, David Peterson (2010), Ambrish Sharma (2015), Thomas Polivka (2015), Chase Calkins (2015), Clinton Aegerter (2016), Yun Yue (2016), Elizabeth Lennartson (2018), Sepehr Roudini (2019), Zeyuan Ru (2022)
<i>Ph.D. completed:</i>	David Peterson (2012), Xiaoguang Xu (2015), Yi Wang (2019), Meng Zhou (2023)
<i>Visiting Scholar</i>	Tong Sha, Yanyu Wang, Juanxiao Gong (2020-2021), Disong Fu (2019), Hyunkwang Lim (2018), Seoyoung Lee (2018), Xi Chen (2015-2016), Imran Shahzad (2015-2016), Jun Zhu (2015-2016), Weijun Qu (2012-2013)

SUPERVISION OF VISITING SCHOLARS

Tong Sha	Nanjing University of Information Science & Technology, Nov. 2019 – Nov. 2020
Yanyu Wang	FuDan University Oct 2019 – Nov 2020
Juanxiao Gong	Lanzhou University Feb. 2020 – Feb. 2021
Disong Fu	Chinese Academy of Sciences March – June 2019
Hyunkwang Lim	Yonsei University March – April 2018
Seoyoung Lee	Yonsei University March – April 2018
Jingjing Song	Chinese Academy of Sciences Oct. 2017 – Oct. 2018
Xi Chen	Chinese Academy of Sciences Oct. 2015 – Oct. 2016
Imran Shahzad	The Hong Kong Polytechnic University July 2015 – July 2016
Jun Zhu	Chinese Academy of Sciences July 2015 – July 2016
Weijun Qu	Ocean University of China Feb 2012 – Feb. 2013

UNDERGRADUTE RESEARCH ASSISTANT SUPERVISION

Adam Swartzendruber	May 2023 - present
Vincent Hodges	May 2023 - present
Cheryl Reuben	May 2022 - present
Carsen Ramsage	May 2020 – Fall 2022
Ross Brown	May 2021 – May 2022, co-advise with Joe Gomes
Jacob Sint	August 2020 – August 2021, co-advise with Fatima Toor
Steve Tammes	May 2020 – August 2021, co-advise with Phil Kaaret
Teagan Bell	May 2021– May 2023
Marie Ohlinger	May 2021– May 2023
Margaret Praska	May 2021– May 2023
Hadley Mosby	May 2021 – May 2023
Daven Aman	May 2019 – present, NRL summer internship 2019, 2020
William Julstrom	May 2020 – July 2022
Calvin Hynek	Sep. 2019 – January 2020
Clarissa Dietz	May 2018 – May 2020

Cassandra Joyce	Oct. 2018 – May 2020
Nathaniel R. Le Sage	Oct 2016 – May 2019
Rachel Phinney	Oct 2014-Aug 2016
Haylie Mikulak	Oct 2014-May 2015
Clinton Aegerter	Aug. 2013 – July 2014
Francis Wiles	Jan. 2013 – May 2013, JPL internship in summer 2013
Levi Boggs	Jan. 2013 – May 2013
Megan Vokal	Aug. 2009 – May 2013
Carly Baumann	May 2012 – May 2013, JPL internship in summer 2012
Laura Judd	Aug. 2011 – May 2012, NASA Student Airborne Research Program (SARP) in summer 2012
Samantha Strong Henninger	Aug. 2011 – May 2012
Collin Holmquist	Aug. 2011 – May 2012, JPL internship in summer 2011, and UNL undergraduate honor program
Larry Selk	Jan. 2010 – May 2010
Amy Gehring	Aug. 2009 – May 2010, NASA GSFC summer internship 2009
Nicole Pothier	Aug. 2009 – May 2010, NASA LARC summer internship 2009
Mellisa Hoffmann	Aug. 2009 – May 2010
Jacob Anderson	Aug. 2009 – Dec. 2009
Jacob Worley	Aug. 2009 – Oct. 2009
Jordan Schleif	Jan. 2009 – May 2009, UNL undergraduate honor program
Cathy May	Sep. 2008 – May 2010, NASA GSFC internship in 2010.

MS/PH.D COMMITTEE MEMBER (Chair person is listed at the end of each row)

Beiming Tan	2023	Chemical Engr., UIowa	Prof. Greg Carmichael
Gonzalo A. Ferrada	2022	Chemical Engr., UIowa	Prof. Greg Carmichael
Chenchong Zhang	2022	Environ. Engr., WUSTL	Prof. Rajan Chakrabarty
Jie Zhong	2019	Chemistry, UNL	Prof. Xiaocheng Zeng
Chun-Shang Won	2018	Physics & Astronomy, UIowa	Prof. John A. Goree
Amir A. Shishavan	2018	Elec. & Comp. Engr., UIowa	Prof. Fatima Toor
Zhoyang Zhang	2017	Geoinformatics, HongKong PolyU	Prof. Janet Nichol
Lina Yu	2017	Computer Sci. &Engr., UNL	Prof. Hongfeng Yu
Curtis Walker	2017	Earth & Atmos. Sci., UNL	Prof. Mark Anderson
Shruti Daggumati	2015	Computer Science &Engr./UNL	Prof. Hongfeng Yu
Gabriel Lojero	2012	Earth & Atmos. Sci./UNL	Prof. Matthew Van Den Broeke

PRESENTATIONS/MEETING ABSTRACTS¹

Invited talks: ~105 in total. UC-Davis International Aerosol Modeling Algorithms Conference (2023), Washington University in St. Louis (2023), Univ. of Alabama – Huntsville (2023), Missouri University Science and Technology (2023), South Dakota State University 2022, The International Cooperative for Aerosol Prediction (ICAP) Workshop 2022 & 2023, Michigan Technological Institute (2022),

¹ Full list can be found in the appendix (the last section) of this CV.

Advancement of POLarimetric Observations – 2022; Goddard Earth Sciences Technology and Research GESTAR II Seminar Series 2022; NOAA Climate and Global Change Workshop (2022); MDPI Workshop on Environmental Sensors (2022); Committee on Earth Observation Satellites (CEOS) – 2022; Rochester Institute of Technology -2022; George Mason University Air Quality - 2022, NASA LaRC 2021, UC-Davis 2021, Penn. State, 2021, CEOS AC-VC 2021, 2022, and 2023, AGU 2021, George Mason University 2021, NOAA GEO-XO townhall 2021, AGU 2020, COAA 2020, International Smoke Symposium 2020, Rochester Institute of Technology (2020), International Workshop on “Advancement of POLarimetric Observations: calibration and improved aerosol retrievals” (APOLO-France) 2019, KNMI 2019, FuDan University (2019), NASA JPL (2019), Columbia University (2018), AGU-Xing (2018), IAP-CAS (2018), PKU (2018), CGRER (2018), COAA (2018), University of Montana (2018), APOLO2017 - China, NCAR Fire Data and Analysis workshop 2017, University of Michigan, 2017, Nanjing University of Information Science and Technology (2017), National University of Singapore 2017, WMO Global Atmosphere Watch Program 2017, National University of Seoul 2017, AMS 2017, ECMWF/Univ. of Reading 2016, Yonsei University 2016, Optical Society of America 2016, NCAR/Radiation 2016, NCAR/ASP 2016, NCAR/ACOM 2015, Univ. of Alibaba – Huntsville 2015, Univ. of Iowa 2015, American University 2015, AMS 2013, AGU 2012, Nebraska Department of Environmental Quality 2012, AGU 2010, NASA GSFC Atmosphere Lab 2010, NCAR 2010, Atmospheric Chemistry Society – Midwest region 2008, Amazon Aerosol Workshop 2008, NOAA ARL 2007, University of Maryland – College Park 2007, University of Minnesota 2007, NASA GSFC AEROCENTER 2006, GSFC GMAO 2006, Texas A&M 2006, Saint Louis University 2006, NCAR workshop on remote sensing of air quality 2006, Harvard 2005, Institute of Atmospheric Physics 2005.

Other presentations: ~340 poster and talks presented in venues such as IEEE, AGU, EGU, AMS, AAAR, IGAC, Electromagnetic and Light Scattering conference, Gordon conference, International Symposium for Remote Sensing of the Environment, science team meetings for SNPP, Aura, TEMPO, GEO-CAPE, and NASA’s Interdisciplinary Science, NOAA’s Air Quality team meeting, NASA’s A-train meeting, Nebraska Academy of Sciences, etc.

BOOKS EDITED

1. Islam, T., Y. Hu, A. Kokhanovsky, and **J. Wang** (editors), Remote Sensing of Aerosols, Clouds, and Precipitation, pp347, ISBN: 9780128104378, Elsevier, 2018.
2. Liu, Y., **J. Wang**, and O. Torres (editors), Remote Sensing of Atmospheric Pollution, ISBN 978-3-03842-640-0, pp342, ISBN 978-3-03842-640-0, MPDI, 2018.

RECENT BOOK CHAPTERS

1. Xu, X. and **J. Wang**, UNL-VRTM, a testbed for aerosol remote sensing: model developments and applications, In Springer Series in Light Scattering, edited by Alexander Kokhanovsky, pp. 1-69, Natural Hazard Springer Nature Switzerland AG, ISBN 978-3-030-20586-7, 2019.
2. Xu, X., **J. Wang**, Y. Wang, and A. Kokhanovsky (2017), Passive remote sensing of aerosol height, in Remote Sensing of Aerosols, Clouds, and Precipitation, edited by T. Islam, Y. Hu, A. Kokhanovsky, and J. Wang, pp.1-22, Elsevier, Cambridge, MA, doi: 10.1016/B978-0-12-810437-8.00001-3, 2018.
3. Ichoku, C., L. Ellison, Y. Yue, **J. Wang**, and J. Kaiser, Chapter 14: *Fire and Smoke Remote Sensing and Modeling Uncertainties*, In AGU Monograph 223, Characterizing Uncertainties in Assessment: Modeling and Decision Support, 215-230, 2016.
4. West, J., L. Emberson, and other 28 authors (including **J. Wang**), Chapter 5: *Impacts on Health, Ecosystems, and Climate*. In F. Dentener, T. Keating, and H. Akimoto (Eds), Hemispheric transport of air pollution 2010, Part A: ozone and particulate matter (pp:159-251), New York and Geneva, United Nations Publication, ISBN 978-92-1-117043-6, 2010.

PEER-REVIEWED PUBLICATIONS (~202, * Wang’s group member, Google Scholar H-Index: 60)

Authored over 200 peer-reviewed papers, including 19 in high impact journals with impact factor (IF) larger than 10. More than 10 articles were published in each of the following journals: *Remote Sensing of Environment* (11 papers), *Atmospheric Chemistry and Physics* (23 papers), *Geophysical Research Letter* (16), *Atmospheric Environment* (15), *Journal of Geophysical Research – Atmospheres* (42), and *Journal of Quantitative Spectroscopy and Radiative Transfer* (11). Table below shows the number distribution of these papers in different journals that are sorted in order with their impact factor according to 2022 Journal Citation Reports. Note, IF can be affected by the size of research field. For example, *Journal of Quantitative Spectroscopy and Radiative Transfer* is a very specialized journal with a very focused group of readers. Detailed list of all publication can be found after the table below.

Journal Name	# of Paper Wang authored	Impact Factor in 2022
Lancet Planetary Health	1	25.7
Nature communication	2	16.6
Remote Sensing of Environment	11	13.5
Environmental Science & Technology	3	13.5
Environmental International	1	11.8
Proceedings of the National Academy of Sciences	1	11.1
Science of The Total Environment	2	9.8
Environmental Pollution	1	8.9
Computers and Electronics in Agriculture	1	8.3
IEEE Transcation on Geoscience and Remote Sensing	3	8.2
Bulletin of the American Meteorological Society	4	8.0
Environmental Research Letter	6	6.7
Agriculture Ecosystems, & Environment	1	6.6
Atmospheric Chemistry and Physics	23	6.3
Environmental Science and Pollution Research	1	5.8
Advances in Atmospheric Sciences	1	5.8
Atmospheric Research	7	5.5
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	1	5.5
Water Resources Research	1	5.4
Geophysical Research Letter	16	5.2
Geoscientific Model Development	3	5.1
Atmospheric Environment	15	5.0
Remote Sensing	5	5.0
IEEE Geoscience and Remote Sensing Letter	1	4.8
GeoHealth	2	4.8
Climate Dynamics	1	4.6
Scientific Report	1	4.6
Frontiers in Environmental Science	1	4.6
Atmospheric Pollution Research	1	4.5

Journal of Geophysical Research - Atmospheres	42	4.4
International Journal of Climatology	1	3.9
Atmospheric Measurement Technique	4	3.8
Journal of Hydrometeorology	1	3.8
International Journal of Remote Sensing	1	3.4
CMC Computers, Materials & Continua	1	3.1
Journal of the Meteorological Society of Japan	1	3.1
Journal of Applied Meteorology and Climatology	4	3.0
Atmosphere	3	2.9
Journal of the Air & Waste Management Association	2	2.7
Journal of Quantitative Spectroscopy and Radiative Transfer	11	2.3
Other Journals	14	Below 3.0

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APPENDIX: LIST OF PRESENTATIONS

INVITED PRESENTATIONS

1. **Wang, J.**, Advances in passive remote sensing of aerosol vertical profile, Darmstadt, International Cooperative for Aerosol Prediction (IACP) meeting, Germany, Nov. 2023.
2. **Wang, J.**, Aerosol optical centroid height product: applications & progress, Atmospheric Composition Virtual Constellation, Committee on Earth Observation Satellites (CEOS), Brussels, Belgium, Oct. 2023.
3. **Wang, J.**, Impacts of irrigation, agriculture, and urbanization on regional climate and air quality, Seminar Series in Chemical & Biochemical Engineering, Missouri University Science & Technology, Rolla, MO, Sep., 2023.
4. **Wang, J.**, NightHawk: A satellite mission concept for low light imaging of fires, aerosols, and beyond, Seminar Series in Earth and Atmospheric Sciences, University of Alabama – Huntsville, Huntsville, AL, Aug. 2023.
5. **Wang, J.**, Lightning the dark: mapping aerosol transport at night from space, Lille workshop on recent advancements in remote sensing and modeling of aerosols, clouds and surfaces, University of Lille, Lille, France, May 2023.
6. **Wang, J.**, NightHawk: A satellite mission concept for low light imaging of fires, aerosols, and beyond, Seminar Series in Energy, Environmental, and Chemical Engineering, Washington University in St. Louis, Marcy 2023
7. **Wang, J.**, Resolving and predicting neighborhood vulnerability to urban heat and air pollution: first results from a community science project, AGU Honors Program, 2022 AGU fall meeting, Chicago, IL, Dec. 2022.
8. **Wang, J.**, Advances in passive remote sensing of aerosol vertical profile, Darmstadt, International Cooperative for Aerosol Prediction (IACP) meeting, Germany, Nov. 2023.
9. **Wang, J.**, Recent Advances in Satellite Remote Sensing of Fire Combustion Efficiency and Smoke Transport at Night, Geospatial Spatial Sciences Center of Excellence Seminar, South Dakota State University, Brookings, SD, October 2022.
10. **Wang, J.**, Aerosol Centroid Layer Height (AOCH) Retrieval from space, new data product, algorithm development, and applications, The International Cooperative for Aerosol Prediction (IACP) Workshop, Monterey, CA, October 2022.
11. **Wang, J.**, Impacts of irrigation, agriculture, and urbanization on regional climate and air quality, Seminar Series in Earth, Planetary, and Space Sciences, Michigan Technological Institute, Houghton, MI. October 2022.
12. **Wang, J.**, Satellite observations of atmospheric composition and wildfires for studying air quality and climate change, 5th CME NASA Symposium, American Chemistry Society meeting, Chicago, August 2022.
13. **Wang, J.**, Continuing Dr. Michael I. Mishchenko's legacy in open science and mentoring next generation scholars, Advancement of POLarimetric Observations - 2022, College Park, MD, August 2022.
14. **Wang, J.**, NightHawk: A satellite mission concept for low light imaging of fires and beyond, Goddard Earth Sciences Technology and Research GESTAR II Seminar Series (virtual), July 2022.
15. **Wang, J.**, A smart-and-connected irrigation and weather intelligence system for rural communities in Nebraska, NOAA Climate and Global Change Workshop, Steamboat, CO, July 2022.
16. **Wang, J.**, Lighting the dark: sensing fire combustion efficiency and smoke transport at night from space, MDPI Workshop on Environmental Sensors (virtual), June 2022.
17. **Wang, J.**, UV-Vis-NIR remote sensing of aerosol layer height and aerosol properties, NOAA UV-Vis-NIR Workshop (virtual), June 2022
18. **Wang, J.**, NightHawk: A satellite mission concept for low light imaging of fires and beyond, NASA Ames Earth Science Division Seminar (virtual), May 2022.
19. **Wang, J.**, Aerosol centroid layer height: New algorithm development and applications for heavy smoke conditions, Atmospheric Composition Virtual Constellation (virtual), Committee on Earth Observation Satellites (CEOS), March 2022.

20. **Wang, J.**, Remote sensing and imaging science: Make the invisible visible and beyond, Chester F. Carlson Center for Imaging Science, Rochester Institute of Technology, Rochester NY, March 2022.
21. **Wang, J.**, Lighting the dark: sensing fire combustion efficiency and smoke transport at night from space, Environmental Science Seminar (virtual), South China University of Technology, March 2022.
22. **Wang, J.**, Recent advances in satellite remote sensing of fires combustion efficiency & smoke transport at night, George Mason University Air Quality Group Seminar (virtual), Jan. 2022.
23. **Wang, J.**, Recent advances in remote sensing of fire combustion efficiency from space, A42G-01, 2021 AGU fall meeting, New Orleans, LA, Dec. 2021.
24. **Wang, J.**, Hyperspectral Sensing of Aerosols: from spectral fingerprints to emissions and processes, CLARREO Pathfinder (CPF) Workshop (virtual), NASA Langley, Nov. 2021.
25. **Wang, J.**, Recent advances in top-down estimates of emissions from human activities, soils, and fires, Colloquium in Department of Meteorology and Atmospheric Science, The Pennsylvania State University, State College, PA, Oct. 2021.
26. **Wang, J.**, Remote sensing of atmospheric composition from space: making the invisible visible, Guest Lecture to general education class on environment, College of College of Earth and Mineral Sciences, The Pennsylvania State University, State College, PA, Oct. 2021.
27. **Wang, J.**, Fire detection from space: A tutorial. Guest Lecture in Radiation Class, Department of Meteorology and Atmospheric Science, The Pennsylvania State University, State College, PA, Oct. 2021.
28. **Wang, J.**, Lighting the dark: Insights of nighttime fires from space, 2021 Meteorology and Climate - Modeling for Air Quality conference (virtual), UC-Davis, Sep. 2021.
29. **Wang, J.**, Lighting the dark: insights of fire combustion efficiency and smoke transport at night from VIIRS, NOAA JPSS Science Seminar (virtual), 18 October 2021.
30. **Wang, J.**, Environmental sensing from space and in agricultural fields, Department of Geography and Sustainability seminar (virtual), The University of Iowa, September 2021.
31. **Wang, J.**, Aerosol Centroid Layer Height: New algorithm development and applications, CEOS Atmospheric Composition Virtual Constellation AC-VC (virtual), 17 June 2021.
32. **Wang, J.**, Hourly aerosol height information from space, GEO-XO perspective, NOAA GEO-XO Townhall (virtual), May 2021.
33. **Wang, J.**, Satellite remote sensing of aerosol vertical distribution: A critical review and future directions, NASA GSFC AEROCETER seminar (virtual), 30 March 2021.
34. **Wang, J.**, Satellite observations for improving emissions and ensemble air quality forecast, George Mason University Air Quality Group Seminar, George Mason University, 29 March 2021.
35. **Wang, J.**, Lighting the dark: Insights of nighttime fires from space, A191-01, 2020 AGU fall meeting, Virtual Platform, Dec. 2020.
36. **Wang, J.**, Recent advances in remote sensing of fires and smoke plume height, Center for Imaging Science, Rochester Institute of Technology, Oct. 2020.
37. **Wang, J.**, Jobs after Ph.D.: Navigating interdisciplinary research, Virtual workshop hosted by Chinese-American Oceanic and Atmospheric Association, Sep. 2020.
38. **Wang, J.**, Detecting nighttime fire combustion efficiency and characterizing plume rise from space, 3rd International Smoke Symposium (virtual), April 2020.
39. **Wang, J.**, Remote sensing of atmospheric composition from space: making the invisible visible, Department of Chemistry, University of Iowa, March 2020.
40. **Wang, J.**, A numerical testbed (UNL-VRTM) for remote sensing of aerosols: new capabilities for non-spherical particles and illumination sources at night, APOLO-II conference, Lillie, France, Nov. 2019.
41. **Wang, J.**, Recent Advances in Remote Sensing of Aerosols and Fires, KNMI seminar, De Bilt, Netherland, Nov. 2019.
42. **Wang, J.**, Impact of aerosol non-sphericity on the satellite remote sensing of CO₂, 18th electromagnetic and light scattering conference (ELS-SVIII), Hangzhou, China, June 2019.
43. **Wang, J.**, Impacts of irrigation on regional climate and air quality, FuDan University, Shanghai, China, June 2019.
44. **Wang, J.**, Passive remote sensing of aerosol layer height from O₂ A and B bands: Theoretical basis and case studies, Chinese Academy of Sciences – Hefei, An'Hui, China, June 2019.

45. **Wang, J.**, Impacts of irrigation on regional climate and air quality, NASA JPL seminar, Pasadena, CA, Jan 2019.
46. **Wang, J.**, MAIA: A satellite mission to study air pollution and public health, Air Pollution Extreme workshop, Columbia University, November 2018
47. **Wang, J.**, Satellite remote sensing of surface PM2.5: A critical review, AGU-Xing, Xi'An, China, Oct., 2018.
48. **Wang, J.**, Recent advances in remote sensing of aerosol layer height and fires, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China, Oct. 2018
49. **Wang, J.**, Recent advances in satellite remote sensing of aerosols, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing China, Oct. 2018.
50. **Wang, J.**, Recent advances in polarimetric remote sensing of aerosols, Chinese Academy of Metrological Sciences, CMA, Beijing, China, Oct. 2018.
51. **Wang, J.**, Recent advances in remote sensing of aerosols and fires, Peking University, Beijing, China, Oct. 2018.
52. **Wang, J.**, Remote sensing of atmospheric composition from space: making the invisible visible, Grinnell College, Sep., 2018.
53. **Wang, J.**, Satellite remote sensing of fires and tis application to WRF-Chem modeling, Nanjing University of Science and Information Technology, China, June 2018.
54. **Wang, J.**, GEOS-Chem adjoint inversion of aerosol source emissions with multi- sensor datasets over east Asia, Nanjing University, China, June 2018.
55. **Wang, J.**, Satellite remote sensing of atmospheric composition: an introduction, seminar to undergraduate students in College of Engineering, Nantong University, China, May 2018.
56. **Wang, J.**, Satellite remote sensing of fires, seminar to graduate students in College of Engineering, Nantong University, China, May 2018.
57. **Wang, J.**, Satellite remote sensing of atmospheric composition and fires: making the invisible visible and beyond, invited seminar for Chinese-American Oceanic and Atmospheric Association (COAA), Washington DC, April 2018
58. **Wang, J.**, Satellite remote sensing of fire phase at night, CGRER Advisory Board Meeting, University of Iowa, April 2018.
59. **Wang, J.**, Recent advances in remote sensing of fires and fire emissions from space, UC-Davis, March 2018.
60. **Wang, J.**, Resolving uncertainties in the urban air quality, climate, and vegetation nexus: citizen science, satellites, and models, 1st international air sensor conferences, UC-Davis, March 2018.
61. **Wang, J.**, Remote sensing of atmospheric composition: big data opportunities and challenges for inversion/optimization problems, Applied Math seminar, Univ. of Iowa, March 2018.
62. **Wang, J.**, Recent advances in remote sensing and mesoscale modeling of fires, Missoula, University of Montana, Feb. 2018.
63. **Wang, J.**, Recent Advances in remote sensing of aerosols and fires, Desert Research Institute, Redo, NV, September 2017.
64. **Wang, J.**, Recent Advances in remote sensing of aerosols and fires, University of Michigan, Ann Arbor, NV, November 2017.
65. **Wang, J.**, Recent advances in remote sensing of aerosol plume height from O2 A and B bands: value of polarization measurement, International Workshop on “Advancement of polarimetric observations: calibration and improved aerosol retrievals” (APOLO2017), Hefei, China, Oct. 2017.
66. **Wang, J.**, Satellite remote sensing of fires: principals, datasets, and Python programming, NCAR Workshop: Analysis of existing biomass burning datasets, Boulder, CO, July 2017.
67. **Wang, J.**, Global Atmospheric Watch (GAW): Agriculture, Energy, and Air Quality perspective in climate change, WMO GAW 2017 Symposium, Geneva, April 2017.
68. **Wang, J.**, Remote sensing of air pollution from space, Nanjing University of Information Science and Technology, China, July, 2017.
69. **Wang, J.**, Big data research in environmental sciences, Nantong University, China, July, 2017.

70. **Wang, J.**, Application of satellite observations for aerosol emission and forcing estimate, 3rd International Workshop on SLCPs in Asia: Chemistry-climate modeling and its applications, Gangneung, South Korea, January 2017.
71. **Wang, J.**, GEOS-Chem adjoint inversion of aerosol source emissions with multi-sensor (MODIS, MISR, and OMI) datasets over east Asia, 19th Conference on Atmospheric Chemistry, 97th American Meteorological Society Annual Meeting, Seattle, WA., January 2017.
72. **Wang, J.**, Satellite-based Estimate of Aerosol Emissions, Department of Earth System Science, Tsinghua University, Beijing China, Nov. 2016.
73. **Wang, J.**, Assessing information content of CLARREO-type (UV-VIS-NIR-TIR) measurements for size-dependent dust emissions: an OSSE Study, 2nd workshop on Atmospheric Composition Observation System Simulation Experiments (OSSEs), ECMWF, University of Reading, Reading, UK., Nov. 2016.
74. **Wang, J.**, Aerosol retrievals from space: principals and numerical modeling, tutorial lecture to graduate students, Dept. of Atmospheric Sciences, Yonsei University, Seoul, South Korea, Oct. 2016.
75. **Wang, J.**, Feasibility analysis for hyperspectral remote sensing of aerosols, GEMS satellite workshop, Yonsei University, Seoul, South Korea, Oct. 2016.
76. **Wang, J.**, Satellite remote sensing of aerosols for air quality and climate studies: current capabilities and next steps, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Aug. 4, 2016.
77. **Wang, J.**, An algorithm for hyperspectral remote sensing of aerosols, Workshop on Propagation Through and Characterization of Atmospheric and Oceanic Phenomena, Optical Society of America, Washington D.C., June 27-29 2016.
78. **Wang, J.**, A new research algorithm for Retrieval of aerosol microphysical properties from AERONET photo-polarimetric measurements, NCAR atmospheric radiation science workshop, March 8-11, 2016.
79. **Wang, J.**, Satellite remote sensing of aerosols: current capabilities and next steps, Department of Atmospheric Sciences, University of Alabama – Huntsville, Huntsville, AL, May 2015.
80. **Wang, J.**, Satellite remote sensing of particulate matter air pollution: current capabilities and next steps, NCAR Lab for Atmospheric Chemistry Observation and Modeling, May 2015.
81. **Wang, J.**, Satellite remote sensing of particulate matter air pollution, Dep. of Chemical and Bio-chemical Engineering, University of Iowa, Iowa City, IA, Feb. 2015.
82. **Wang, J.**, Remote sensing of particulate matter air pollution from space, Department of Environmental Sciences, American University, Washington D.C., Feb. 2015.
83. **Wang, J.**, C. Ge, and J. Reid, On the locality of smoke semi-direct effects, 93th American Meteorological Society Annual Meeting (2013). Austin, TX. Abstract 3.3, Fifth Symposium on Aerosol-Cloud-Climate, January 2013.
84. **Wang, J.**, X. Xu, and D. K. Henze, Toward the integrated use of multi-sensors (MODIS, MISR, and OMI) and inverse modeling (GEOS-Chem adjoint) to constrain the aerosol primary and precursor emissions, *AGU 2012 Fall Meeting*, San Francisco, CA, Dec., 2012.
85. **Wang, J.**, Air Quality Monitoring from Space and Its Application for Quantifying Transboundary Air Pollution, Nebraska Department of Environmental Quality, May 2012.
86. **Wang, J.**, X. Xu, and D. K. Henze, A new framework for the top-down estimate of aerosol emission: integrate analysis with satellite (MODIS) reflectance and the adjoint of a chemistry transport model (GEOS-chem), Abstract A51H-04, American Geophysical Union Fall Meeting, San Francisco, CA, Dec., 2010. (talk given in the session: Measuring the Earth-atmosphere fluxes and tropospheric composition from space.)
87. **Wang, J.**, Improve the understanding of aerosol impact on climate at regional scale: integrate the model data with satellite observations, Climate and Radiation branch seminar, Lab for Atmospheres, NASA Goddard Space Flight Center, Aug. 2010.
88. **Wang, J.**, From biomass burning emission to atmospheric process studies: A case analysis of the impact of Central American smoke particles on the regional climate over the U.S., presented at the NCAR Junior Faculty Forum, Boulder, CO, July 2010.
89. **Wang, J.**, R. Park, D. J. Jacob, and S. T. Martin, Global distribution and climate forcing of solid and aqueous sulfate aerosols: effect of the hysteresis of particle phase transitions, oral presentation at 43rd midwest Regional Atmospheric Chemistry Society meeting, Oct. 2008, Kearney, Nebraska, USA.

90. **Wang, J.**, A hypothesis on the linkage between Central American biomass burning aerosols and severe weather over southern U.S, oral presentation at The International Workshop: Aerosols in the Amazon - Changes and their Consequences from Past and Future Human Activities, Feb 18 - 22, 2008, Manaus, Amazonia, Brazil.
91. **Wang, J.**, Value of remote sensing and in situ measurements for the modeling of aerosol impact on air quality and weather. Headquarters of NOAA Air Resources Laboratory, Silver Spring, Maryland, May 21, 2007.
92. **Wang, J.**, Assimilation of remote sensing data for the modeling of aerosol impact on air quality and climate, Atmospheric Chemistry Brown Bag Talks, Department of Atmospheric and Oceanic Science, University of Maryland-College Park, April 20, 2007.
93. **Wang, J.**, Assimilation of remote sensing and in situ data for the modeling of aerosol impact on air quality and climate, Department of Soil, Water, and Climate, University of Minnesota, April 22, 2007.
94. **Wang, J.**, Assimilation of satellite-based aerosol products for the regional air quality and weather forecast, Department of Geosciences, University of Nebraska - Lincoln, March 22, 2007.
95. **Wang, J.**, Sensitivity of sulfate aerosol direct climate forcing to the particle physical state: A global perspective, presented at the Center for Aerosol Research, NASA/GSFC, Greenbelt, Maryland, Nov. 2006.
96. **Wang, J.**, Assimilation of satellite-based aerosol products for the regional air quality and weather forecast, presented at NASA Global Modeling and Assimilation Office (GMAO), NASA/GSFC, Greenbelt, Maryland, Oct. 20, 2006.
97. **Wang, J.**, Regional air quality and climate impact of Central American biomass burning aerosols, presented at the Summer Institute for the NOAA Climate and Global Change Postdoctoral Program, Steamboat Springs, Colorado, July 2006.
98. **Wang, J.**, Improving regional air quality forecast with satellite aerosol products, Northrop Grumman Space Technology, One Space Park, Redondo Beach, CA, June 5, 2006.
99. **Wang, J.**, Improving particulate matter air quality forecast with satellite observations, Department of Physics, University of Maryland in Baltimore County, June 1, 2006.
100. **Wang, J.**, Aerosol-meteorology coupling in the chemical weather forecast: lessons learned from the modeling of Central American smoke transport, Department of Atmospheric Science, Texas A&M University, May 1, 2006.
101. **Wang, J.**, Air quality and radiative impacts of Central American biomass burning aerosols over the Southeastern United States, Department of Earth and Atmospheric Science, Saint Louis University, April 10, 2006.
102. **Wang, J.**, Mesoscale modeling of dust and smoke transport: How geostationary satellite can help? Workshop on Air Quality Remote Sensing from Space, NCAR, February 22, 2006. (Talk)
103. **Wang, J.**, An analysis of modeled and satellite-based aerosol optical thickness, Atmospheric Science Seminar in the Department of Atmospheric Science, University of Alabama in Huntsville, January 26, 2006, Huntsville, AL.
104. **Wang, J.**, An overview of aerosol and fire monitoring from Geostationary Satellites and their assimilation for the regional air quality and weather forecast, Institute of Atmospheric Science, Chinese Academy of Science, September 2, 2005, Beijing, China.
105. **Wang, J.**, The radiative impacts of absorptive aerosols in the lower troposphere, Atmospheric Science Seminar in the Department of Earth and Planetary Science, Harvard University, Boston, MA, January 28, 2005.

OTHER PRESENTATIONS/ABSTRACTS

(*talk given by J. Wang or collaborators, *talk by student/postdoc)

~330 posters/abstracts/talks presented in venues such as AGU, EGU, AMS, AAAR, IGAC, Electromagnetic and Light Scattering conference, Gordon conference, International Symposium for Remote Sensing of the Environment, science team meetings for SNPP, Aura, TEMPO, GEO-CAPE,

and NASA's Interdisciplinary Science, NOAA's Air Quality team meeting, NASA's A-train meeting, Nebraska Academy of Sciences, etc.

1. **Wang, J.**, Modeling and observations for fire and smoke events in 2023: A brief introduction of new satellite data, NASA Health and Air Quality Science Team meeting, Salt Lake City, UT. 9 October 2023.
2. **Wang, J.**, Z. Lu, H. Kim, X. Chen, X. Xu, S. Kondragunta, AOCHE product from EPIC: progress and applications, DSCOVR science team meeting, Greenbelt, MD. 16 Oct. 2023.
3. Chutia, L. and **J. Wang**, Elucidating the impacts of aerosol-radiation interaction (ARI) on surface O₃ and PM_{2.5} in megacity Delhi, India. AOGS annual meeting, Singapore, 1 August 2023.
4. **Wang, J.**, Demonstration of AOCHE for air quality studies, TEMPO science team meeting, Huntsville, AL. 4 May 2023.
5. **Wang, J.**, Observation-based insights of emission process dependence of soil NO_x emission on temperature, TEMPO science team meeting, Huntsville, AL. 3 May 2023.
6. Chutia, L., **J. Wang**, H. Zhang, L. Castro Garcia, and N. Janecek, Impact of Aerosol Radiative Effects on Surface Ozone in Megacity Delhi, India, A43A-03, AGU 2022 Fall Meeting, Chicago, 12–16 December 2022.
7. Tammes, S., Wang, J. Kaaret, P., Zhou, M., Schnell, T., Linderman, M., Richey, C., Packard, C., and Fuller, C, Multispectral Earth Observation and Nighttime Fire Detection With NIGHTHAWK, 152A, AMS 2022 Madison Conference, Madison, 9 August 2022
8. Chutia, L., **J. Wang**, and H. Zhang, Impacts of Aerosol Radiation Interaction on PM_{2.5} and O₃ Air Quality over Delhi, India, 413, AMS Collective Madison Meeting, Madison, WI, 08–12 August 2022.
9. Chutia, L., **J. Wang**, and H. Zhang, Impacts of Aerosol-radiation Feedback on Air Quality Over Delhi, India, AS09-A038, AOGS 2022 Virtual, 01–05 August 2022.
10. Chutia, L., **J. Wang**, and H. Zhang, Impacts of aerosol-radiation interaction on ozone photochemistry over the Indian subcontinent", B.16, 10th International GEOS-Chem Meeting (IGC10), Washington University, 7–10 June 2022.
11. Zhang, H., **J. Wang**, L. Chutia, N. Janecek, M. Zhou, C. Gui, T. Sha, L. Castro Garcia, Y. Wang, S. Val, Y. Wang, J. McDuffie and D. Diner, Development of UI-WRF-Chem for MAIA-TEMPO Synergy: Case Studies", TEMPO 2022 Science Team Meeting, Online, May 31- June 2, 2022.
12. *Zhou, M., J. Wang, X. Chen, L. C. Garcia, X. Xu, D. A. Peterson, E. J. Hyer, J. Reid, P. R. Colarco, S. D. Miller, D. M. Giles, B. N. Holben, Z. Wang, A. M. da Silva, and S. Kondragunta. "Lighting the Night: Application of VIIRS DNB for Monitoring Wildfire and Smoke Transport at Night." A23A-07, AGU 2022 Fall meeting, Chicago, Illinois, Urbana-Champaign, Illinois, 12 -16 October 2022.
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