

## JONATHAN D. W. KAHL

Professor of Atmospheric Sciences  
School of Freshwater Sciences  
University of Wisconsin-Milwaukee

414-251-9215  
kahl@uwm.edu  
[sites.uwm.edu/kahl](http://sites.uwm.edu/kahl)



### EDUCATION:

- Postdoctoral 1987-89 National Research Council Resident Research Associate: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory, Boulder, Colorado. Advisor: Russ Schnell.
- Ph.D., 1987 Atmospheric Science, University of Michigan. Advisor: Perry Samson.  
*Dissertation: Interpolation of synoptic-scale winds: Implications for boundary-layer trajectory model accuracy.*
- M.S., 1983 Atmospheric Science, University of Michigan. Advisor: Perry Samson.  
*Thesis: Sensitivity of sulfate source-receptor relationships to meteorological variability.*
- B.A., 1981 Psychology, University of Michigan

### EMPLOYMENT HISTORY:

1/90 - present	Professor of Atmospheric Science, School of Freshwater Sciences, University of Wisconsin-Milwaukee (Full Professor 2000-present, Associate Professor 1994-2000, Assistant Professor 1990-94)
10/89 - 1/90, Summers, 90-92	Research Associate, Cooperative Institute for Research in Environmental Science (CIRES), University of Colorado, Boulder, Colorado.
10/87 - 10/89	National Research Council Postdoctoral Research Associate, Geophysical Monitoring for Climatic Change Laboratory, National Oceanic and Atmospheric Administration, Boulder, Colorado.
4/87 - 9/87	Research Fellow, Space Physics Research Laboratory, Department of Atmospheric and Oceanic Science, University of Michigan, Ann Arbor, Michigan.
1/83 - 3/87	Research and Teaching Assistant, Department of Atmospheric and Oceanic Science, University of Michigan, Ann Arbor, Michigan.
9/85 - 8/86	Visiting Student, National Center for Atmospheric Research, Acid Deposition Modeling Project, Boulder, Colorado.

**HONORS AND AWARDS:**

- UW-Milwaukee International Advocate Award, 2024.
- UW-Milwaukee International Advocate Award, 2023.
- UW-Milwaukee Distinguished Undergraduate Teaching Award, 2020.
- Teaching Excellence Award, given by the University of Wisconsin-Milwaukee Alumni Association, 2006.
- Fulbright Scholar Award, 2003.
- International courses taught: *Meteorological Aspects of Air Pollution*, 50-hr course taught annually at several universities in Mexico, 2006-present: University of Carmen, Ciudad del Carmen; University of Campeche; University of Nuevo León, Monterrey; University of Mexico (UNAM), Mexico City.
- International Keynote speaker:
  - Air Pollution 2024 Annual Meeting, University of Carmen, Ciudad del Carmen, Mexico.
  - International Symposium on University Actions for the Mitigation of Climate Change, sponsored by the University of Nuevo Leon (Mexico) and the Mexican Climate Initiative. Monterrey, Mexico, 2024.
  - Empowerment of Leaders in Sustainability and Climate Action, sponsored by the State of Nuevo Leon (Mexico), Secretary of Sustainable Development. Monterrey, Mexico, 2021
  - International Clean Air Day, webinar sponsored by the State of Nuevo Leon, Mexico, 2020.
  - Jornadas Ambientales 2020, webinar sponsored by the University of Veracruz-Orizaba.
  - Atmospheric Sciences Panorama, Atmospheric Science Center, National Autonomous University of Mexico (UNAM), Mexico City, Mexico, 2018.
  - International Seminar on Health and Sustainability: Air pollution and sustainable mobility in urban areas, University of Nuevo León, Monterrey, Mexico, 2016
  - 1<sup>st</sup> International Conference on Chemical Engineering, University of Carmen, Ciudad del Carmen, Mexico, 2010
  - Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 2008
  - 8<sup>th</sup> Regional Conference of Biological and Pharmaceutical Chemistry, University of Nuevo León, Monterrey, Mexico, 2007.
  - 6<sup>th</sup> Regional Conference of Biological and Pharmaceutical Chemistry, University of Nuevo León, Monterrey, Mexico, 2004.
  - Chemical Engineering Conference, University of Nuevo León, Monterrey, 2003
- Editor, *International Journal of Environmental Research in Public Health*, 2019-2022
- Center Scholar, UW-Milwaukee Center for Instructional and Professional Development, 2005.
- Best Children's Book of the Year award for *Hazy Skies: Weather and the Environment*, Bank Street College of Education, 1999.
- Best Book for Children Award for *Hazy Skies: Weather and the Environment*, Science Books and Films (published by the American Association for the Advancement of Science), 1999.

- Quick Picks for Reluctant Readers Book Award for *The National Audubon Society First Field Guide to Weather*, American Library Association, 1999.
- Juvenile Non-fiction Book Award for *Hazy Skies: Weather and the Environment*, Council for Wisconsin Writers, 1998.
- Book Award for *Weather Watch: Forecasting the Weather*, Society of School Librarians International, 1997.
- Outstanding Science Trade Book for Children award for *Weather Watch: Forecasting the Weather*, National Science Teachers Association, 1997.

#### VISITING ACADEMIC APPOINTMENTS:

- Affiliated Professor, Department of Chemical Sciences, National Autonomous University of Nuevo Leon, Monterrey, Mexico, 2006-present.
- Teaching and Research Fellow, Corrosion Research Center, University of Campeche, Mexico, 2009
- Visiting Researcher, University of Mexico (UNAM), Mexico City, Mexico, 2003

#### RESEARCH AREAS:

- Air pollution meteorology
- Long-range atmospheric transport
- Air trajectory modeling
- Boundary-layer meteorology
- Enhancing science education using technology
- Polar meteorology

**PUBLICATIONS:** 4504 citations (Google Scholar); *h* index = 33; as of January 2025):

#### Books [23 total]:

**Kahl, J.D.W.**, 2012: *Instructor's Resource Manual/Test Bank for Meteorology Today, 10<sup>th</sup> Edition*. Cengage Brooks/Cole Publishing Co., Davis, CA, 322 pp.

**Kahl, J.D.W.**, 2011: *Instructor's Resource Manual/Test Bank for Essentials of Meteorology, 6<sup>th</sup> Edition*. Thomson Publishing Co., Davis, CA, 288 pp.

**Kahl, J.D.W.**, 2010: *Instructor's Resource Manual/Test Bank for Extreme Weather*. Cengage Brooks/Cole Publishing Co., Davis, CA.

**Kahl, J.D.W.**, 2008: *Instructor's Resource Manual/Test Bank for Meteorology Today, 9<sup>th</sup> Edition*. Cengage Brooks/Cole Publishing Co., Davis, CA, 441 pp.

**Kahl, J.D.W.**, 2007: *Instructor's Resource Manual/Test Bank for Essentials of Meteorology, 5<sup>th</sup> Edition*. Thomson Publishing Co., Davis, CA, 356 pp.

**Kahl, J.D.W.**, 2006: *Instructor's Resource Manual/Test Bank for Meteorology Today, 8<sup>th</sup> Edition*. Brooks/Cole Publishing Co., Davis, CA, 417 pp.

- Kahl, J.D.W.**, 2004: *Instructor's Resource Manual for Ahrens' Essentials of Meteorology, An Invitation to the Atmosphere, 4th Edition*. Thomson Brooks/Cole Publishing Co., Belmont, CA, 303 pp.
- Kahl, J.D.W.**, 2002: *Instructor's Resource Manual/Test Bank for Meteorology Today, 7th Edition*. Brooks/Cole Publishing Co., Davis, CA, 345 pp.
- Kahl, J.D.W.**, 2001: *Instructor's Manual with Test Item File to accompany Meteorology, Second Edition*. McGraw-Hill, Boston.
- Wiedner, C. and **J.D.W. Kahl**, 2000: *Instructor's Manual for Meteorology Today, 6th Edition*. Brooks/Cole Publishing Co., Davis, CA, 362 pp.
- Alden, P., B. Cassie, P. Friederici, **J.D.W. Kahl**, P. Leary, A. Leventer, and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Southwestern States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, **J.D.W. Kahl**, G. Nelson, E. Oches, H. Zirlin and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Southeastern States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, **J.D.W. Kahl**, E. Oches, H. Zirlin and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Mid-Atlantic States*. Alfred A. Knopf, New York, NY, 448 pp.
- Alden, P., B. Cassie, J. Grassy, **J.D.W. Kahl**, A. Leventer, D. Mathews and W. Zomlefer, 1999: *National Audubon Society Field Guide to the Rocky Mountain States*. Alfred A. Knopf, New York, NY, 448 pp.
- Kahl, J.D.W.**, 1998: *National Audubon Society First Field Guide to Weather*. Scholastic, New York, NY, 160 pp.
- Kahl, J.D.W.**, 1998: *Balloons that rise, clouds that fall, and air that crushes: Forces in the atmosphere* (videorecording). Blue Sky Associates, Grafton, WI, 53 minutes.
- Kahl, J.D.**, 1998: *Instructor's Manual with Test Item File to accompany Meteorology, First Edition*. McGraw-Hill, Boston, 86 pp.
- Kahl, J.D.W.**, 1998: *Hazy Skies: Weather and the Environment*. Lerner, Minneapolis, MN, 64 pp.
- Kahl, J.D.W.**, 1996: *Weather Watch: Forecasting the Weather*. Lerner, Minneapolis, MN, 72 pp.
- Kahl, J.D.**, 1993: *Thunderbolt: Learning about Lightning*. Lerner, Minneapolis, MN, 56 pp.
- Kahl, J.D.**, 1993: *Storm Warning: Tornadoes and Hurricanes*. Lerner, Minneapolis, MN, 64 pp.

**Kahl, J.D.**, 1992: *Weatherwise: Learning about the Weather*. Lerner, Minneapolis, MN, 64 pp.

**Kahl, J.D.**, 1992: *Wet Weather: Rain Showers and Snowfall*. Lerner, Minneapolis, MN, 64 pp.

**Book chapters [6 total]** (student mentees - graduate<sup>M</sup>; undergraduate<sup>m</sup>):

**Kahl, J.**, R. Soto Ayala, A. Herrera García, and F. Arroyo Valenquela, 2023: Meteorological Aspects and Atmospheric Thermodynamics. In *Thermodynamics for Earth Sciences: Fundamentals and Applications*. University of Mexico (in Spanish).  
<http://www.ptolomeo.unam.mx:8080/xmlui/handle/RepoFi/18540>

Cerón, R. M., Cerón-Bretón, J. G., **J. Kahl**, Ramírez Lara, E., Córdova Quiroz, A. V., Espinosa Guzman, A. A., Muriel, M., Arenas Hernández, G. G., Canul, J., and Rodríguez-Guzmán, A., 2018: Atmospheric N and S Deposition Fluxes in the Metropolitan Area of Monterrey, Mexico and Its Relation with Criteria Air Pollutants and Meteorological Conditions. In *Air Pollution: monitoring, quantification and removal of gases and particles*, InTech Open, DOI: 10.5772/intechopen.79484

**Kahl, J.D.W.** and R. Olivas Saunders<sup>M</sup>, 2012: Meteorological Analysis of Acid Deposition, in *Avances y Perspectivas de la Deposición Ácida en México (Advances and Perspectives in Acid Deposition in Mexico)*, Universidad Autónoma del Carmen, R. Cerón, J. Cerón, J. Guerra, eds., Ciudad del Carmen, Mexico. <https://bit.ly/2ZZJ1o6>.

**Kahl, J.D.W.**, 2012: Earth's Atmosphere. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 406-447

**Kahl, J.D.W.**, 2012: Weather. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 448-483

**Kahl, J.D.W.**, 2012: Climate. In *Earth & Space Science*, McGraw Hill Education, Columbus, Ohio, p. 484-519

**Refereed journal articles [105 total]** (student mentees - graduate<sup>M</sup>; undergraduate<sup>m</sup>):

Antonio Duran, R.E., Sosa Echeverría, R., Fuentes García, G., César Valdez, E., Cortez-Huerta, M., and **Kahl, J.D.W.**, 2025: Atmospheric Emissions from Maritime Activities in Altamira, Gulf of Mexico. *International Journal of Environmental Science and Technology*, JEST-D-24-00739R2.

Cortez-Huerta, M., Sosa Echeverría, R., Fuentes García, G., Esteban Antonio Durán, R.E.A., Ramírez-Macías, J.I., **Kahl, J.D.W.**, 2024: High-resolution atmospheric emissions estimate from dredging activities during port expansion in Veracruz, Mexico. *Ocean Engineering*, 310, 118621. <https://doi.org/10.1016/j.oceaneng.2024.118621>.

- Kahl, J.D.W.**, Zaprzalka<sup>m</sup>, K.J., Brezovar<sup>M</sup>, D.S., Lang, V.A., Selbig, B.R., Harris, A.R., 2024: Investigating the potential of using mixdown altitudes to forecast peak wind gusts. *Weather and Forecasting*, 39, 1203-1217, DOI: 10.1175/WAF-D-23-0092.1.
- Reyes Trujeque, J., Espinosa Guzmán, A.A., Sosa Echeverría, R., Alarcón Jiménez, A.L., Sánchez Alvarez, P., **Kahl, J.D.W.**, 2024: Temporal variation and chemical composition of wet atmospheric deposition from two coastal sites in the Gulf of Mexico from 2006 to 2012. *Water, Soil, and Air Pollution*, <https://doi.org/10.1007/s11270-024-07250-x>.
- Kahl, J.D.W.**, 2023: Weathergami. *Bulletin of the American Meteorological Society*, 104 (10), <https://doi.org/10.1175/BAMS-D-23-0035.1>
- Martínez-Morales, S., Cerón-Bretón, J.G., Carbajal-Pérez, J.N., Cerón-Bretón, R.M., Lara-Severino, R.C., **Kahl, J.D.W.**, Carrillo-Ávila, J.R., Carranco-Lozada, S.E., Espinosa-Guzmán, A.A., Pech-Pech, I.E., García Martínez, R., Robles-Heredia, J.C., Hernández-López, G., Solís-Canul, J.A., and Uc-Chi, M.P, 2023: PM<sub>2.5</sub>-bound trace metals in an urban area of Northern Mexico during the COVID-19 pandemic: characterization, sources, and health risk. *Air Quality, Atmosphere, & Health*, <https://doi.org/10.1007/s11869-023-01372-7>.
- Urbina Leonor, L.M., Sosa Echeverría, R., Perez Castellanos, N., Vega, E. , **Kahl, J.D.W.**, Solano Murillo, M., Soto Ayala, R., 2023: Importance of atmospheric sciences in stone heritage conservation study in Italy and Mexico. *Sustainability*, 15, 5321, <https://doi.org/10.3390/su15065321>.
- Fuentes García, G.; Echeverría, R.S.; Reynoso, A.G.; Baldasano Recio, J.M.; Rueda, V.M.; Hernández, A.R.; **Kahl, J.D.W.**, 2022. Sea Port SO<sub>2</sub> Atmospheric Emissions Influence on Air Quality and Exposure at Veracruz, Mexico. *Atmosphere*, 13, 1950. <https://doi.org/10.3390/atmos13121950>.
- Lara Carvajal, G.I., Sosa Echeverría, R., Magaña, V., Villagómez, G.F., **Kahl, J.D.W.**, 2022. Assessment of chemical risks associated with hydrometeorological phenomena in a Mexican port on the Gulf of Mexico. *Journal of Marine Science and Engineering*, <https://doi.org/10.3390/jmse10101518>.
- Lang<sup>M</sup>, V.A., and **Kahl, J.D.W.**, 2022. Minimal PM<sub>2.5</sub> Impact Observed in Communities Near Large, Recurring, Non-Independence Day Festivals with Fireworks Displays. *Air*, 1, 1–13. <https://doi.org/10.3390/air1010001>.
- Lang<sup>M</sup>, V.A., T.J. Turner<sup>M</sup>, B.R. Selbig<sup>m</sup>, A.R. Harris<sup>M</sup>, and **J.D.W. Kahl**, 2022: Predicting Peak Wind Gusts During Specific Weather Types with the Meteorologically Stratified Gust Factor Model. *Weather and Forecasting*, 37 (8), 1435-1446, <https://doi.org/10.1175/WAF-D-21-0201.1>.

- Fever<sup>M</sup>, S.K., **Kahl, J.D.W.**, Kalkbrenner, A.E., Cerón Bretón, R.M., and Cerón Bretón, J.G., 2022. A New Combined Air Quality and Heat Index in Relation to Mortality in Monterrey, Mexico. *International Journal of Environmental Research and Public Health*, 19, 3299. <https://doi.org/10.3390/ijerph19063299>.
- Fuentes García, G., Sosa Echeverría, R., Baldasano Recio, J.M., **Kahl, J.D.W.**, Antonio Duran, R.E., 2022. Review of top-down method to determine atmospheric emissions in port. Case of study: Port of Veracruz, Mexico. *Journal of Marine Science and Engineering*, 10, 96. <https://doi.org/10.3390/jmse10010096>.
- Cerón Bretón, J.G., R. M. Cerón Bretón, **J.D.W. Kahl**, M.P. Uc Chi, R. Alomía, D.E. Heredia González, I. del C. Sánchez, Y.G. Pinzón, 2022. Seasonal and diurnal variations of BTEX in ambient air from a site impacted by the oil industry in southeast Mexico. *Bulletin of Environmental Contamination and Toxicology*, 108, 212–218. <https://doi.org/10.1007/s00128-021-03379-1>.
- Fuentes García G., Sosa Echeverría, R., Baldasano Recio, J. M., **Kahl, J. D. W.**, Granados Hernández, E., Alarcón Jiménez, A. L., Durán, R. A., 2021. Atmospheric emissions in ports due to maritime traffic in Mexico. *Journal of Marine Science and Engineering*, 9, 1186. <https://doi.org/10.3390/jmse9111186>.
- Cerón, R., Cerón, J.G., Espinosa, M., **Kahl, J.**, Espinosa, A., Garcia, R., Guarnaccia, C., Lara, R., Ramírez, E., and Francavilla, A., 2021. Short-term associations between morbidity and air pollution in metropolitan area of Monterrey, Mexico. *Atmosphere*, 21 (12), 1352. <https://doi.org/10.3390/atmos12101352>.
- Kahl, J. D. W.**, B. R. Selbig<sup>m</sup>, A. R. Harris<sup>M</sup>, 2021: Meteorologically stratified gust factors for forecasting peak wind gusts across the United States. *Bulletin of the American Meteorological Society*, 102 (9), doi.org/10.1175/BAMS-D-21-0013.1. Associated website: [tinyurl.com/MSGFs](http://tinyurl.com/MSGFs).
- Fuentes G., J. M. Baldasano Recio, R. Sosa E., E. Granados H., E. Z. Vargas, R. A. Duran, **J. D. W. Kahl**, 2021: Estimation of atmospheric emissions from maritime activity in the Veracruz port, Mexico. *Journal of the Air and Waste Management Association*, <https://doi.org/10.1080/10962247.2021.1902421>.
- Cerón Bretón, J. G., R. M. Cerón Bretón, **J. D. W. Kahl**, G. Sanchez-Rico, S.E. Carranco-Lozada, M. L. Espinosa Fuentes, M. P. Uc Chi, 2021: Concentrations, sources and health risk associated with exposure to BTEX at ten sites located in an urban-industrial area in the Bajío region, Mexico. *Air Quality, Atmosphere and Health*, 14, 741–761. DOI: [10.1007/s11869-021-00976-1](https://doi.org/10.1007/s11869-021-00976-1).
- Cerón Bretón, R. M., J. G. Cerón Bretón, **J. D. W. Kahl**, M. de la L. Espinosa Fuentes, M. R. Marron, R. C. Lara Severino, E. Ramírez Lara, M. P. Uc Chi, 2020: Short-term effects of atmospheric pollution on daily mortality and their modification by increased temperatures associated with a climatic change scenario in Northern Mexico. *International Journal of Environmental Research in Public Health*, 17, DOI doi:10.3390/ijerph17249219.

- Kahl, J. D. W.**, 2020: Forecasting peak wind gusts using meteorologically-stratified gust factors and MOS guidance. *Weather and Forecasting*, 35(3), 1129-1143. DOI 10.1175/WAF-D-20-0045.1.
- Cerón Bretón, J. G., R. M. Cerón Bretón, S. Martínez Morales, **J. D.W. Kahl**, C. Guarnaccia, R. C. Lara Severino, M. R. Marron, A. A. Espinosa Guzman, M. Rangel Marrón, E. Ramírez Lara, M. de la L. Espinosa Fuentes, M. P. Uc Chi, G. Licona Sanchez, 2020: Health Risk Assessment of the Levels of BTEX in Ambient Air of One Urban Site Located in Leon, Guanajuato, Mexico During two Climatic Seasons. *Atmosphere*, 11, 165; doi:10.3390/atmos11020165.
- Cerón Bretón, J. G., R. M. Cerón Bretón, A. A. Espinosa Guzman, C. Guarnaccia, S. Martínez Morales, R. C. Lara Severino, M. Rangel Marrón, G. Hernández López, S. E. Carranco Lozada, **J. D.W. Kahl**, I. E. Pech Pech, E. Ramírez Lara, and M. de la L. Espinosa Fuentes, 2019: Trace Metals Content, Morphological Characterization and Risk Assessment of PM10 in Ambient Air in an Urban-Industrial Site in Leon, Guanajuato, Mexico during Three Climatic Seasons Of 2018. *Atmosphere*, 10(10), 573; <https://doi.org/10.3390/atmos10100573>.
- Cerón Bretón, R.M., **J. Kahl**, J.G. Cerón Bretón, and J.A. Solís Canul, 2019: The Influence of Meteorology and Atmospheric Transport Patterns on the Sulfate Levels in Rainwater in Orizaba Valley, Veracruz, Mexico. *Journal of Environmental Protection*, 10, 821-837. <https://doi.org/10.4236/jep.2019.106049>.
- Kahl, J.D.W.**, and H. L. Chapman<sup>M</sup>, 2018: Atmospheric stability characterization using the Pasquill method: A critical evaluation. *Atmospheric Environment*, 187, 196-209. <https://doi.org/10.1016/j.atmosenv.2018.05.058>.
- Guerra-Santos, J.J. and **J.D.W. Kahl**, 2018: Redefining the Seasons in the Términos Lagoon Region of Southeastern México: May is a Transition Month, Not a Dry Month. *Journal of Coastal Research*, 34(1), 193-201.
- Cerón-Bretón, R.M., J. G. Cerón-Bretón, **J.D.W. Kahl**, R. C. Severino, M. Rangel Marrón, and E. Rustríán-Portilla, 2018: Potential influence of emissions and transport of N and S on Orizaba Valley, Veracruz, Mexico. *Agrociencia*, 52, 653-670.
- Cerón-Bretón, J.G., R. M. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, M. Espinosa Fuentes, R. C. Severino, M. Rangel Marrón, and M.P. Uc Chi, 2017: Atmospheric levels of benzene and C1-C2 carbonyls in San Nicolas De Los Garza, Nuevo Leon, Mexico: Source implications and health risk. *Atmosphere*, 8, 196; doi:10.3390/atmos8100196.
- Harris<sup>M</sup>, A.R. and **J.D.W. Kahl**, 2017: Gust factors: Meteorologically-stratified climatology, data artifacts, and utility in forecasting peak gusts. *Journal of Applied Meteorology and Climate*, 56, 3151-3166. DOI: 10.1175/JAMC-D-17-0133.1
- Kahl, J.D.W.**, 2016: Automatic, Multiple Assessment Options in Undergraduate Meteorology Education. *Assessment and Evaluation in Higher Education*, 42:8, 1319-1325. <http://dx.doi.org/10.1080/02602938.2016.1249337>.



- Cerón-Bretón, J.G., R. M. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, C.A. Aguilar-Ucán, C. Montalvo-Romero, A. Mendoza-Dominguez, M. Muriel-García, J.A. Ortíz-Alvarez, 2016: Carbonyls in the urban atmosphere of Monterrey, Mexico: sources, exposure, and health risk. *Air Quality, Atmosphere and Health*.  
<http://dx.doi.org/10.1007/s11869-016-0408-1>.
- Ramirez-Lara, E., R. Cerón-Bretón, J.G. Cerón-Bretón, U. López-Chuken, **J.D.W. Kahl**, 2016: Study of Trace Ions in Wet Deposition of an Industrial Site in Monterrey's Metropolitan Area, Mexico. *Open Journal of Ecology*. DOI: 10.4236/oje.2016.61001.  
<http://dx.doi.org/10.4236/oje.2016.61001>.
- Cerón-Bretón, J.G., R. Cerón-Bretón, **J.D.W. Kahl**, E. Ramirez-Lara, C. Guarnaccia, F. Anguebes-Franceschi, U. López-Chuken, 2014: Diurnal and seasonal variation of BTEX in the air of Monterrey, Mexico: preliminary study of sources and photochemical ozone pollution. *Air Quality, Atmosphere and Health*, DOI 10.1007/s11869-014-0296-1.
- Saunders<sup>M</sup>, R.O., **Kahl, J.D.W.**, Ghorai, J.K, 2014: Improved estimation of PM<sub>2.5</sub> using Lagrangian satellite-measured aerosol optical depth. *Atmospheric Environment*, 91, 146-153.
- Kahl, J.D.W.**, and J.G. Cerón, 2014: Faculty-Led Study Abroad in Atmospheric Science Education. *Bulletin of the American Meteorological Society*, 95(2), 283-292.
- Saunders<sup>M</sup>, R.O., E. Scotty<sup>m</sup>, **J.D.W. Kahl**, 2013: The sensitivity of single air parcel trajectory calculations to starting elevation. *Science of the Total Environment*, 229-236.
- González-Santiago, O., C. T. Badillo-Castañeda, E. Ramírez Lara, I. Balderas-Rentería, **J.D.W. Kahl**, 2011: Temporal analysis of PM<sub>10</sub> in Metropolitan Monterrey, México, *Journal of the Air and Waste Management Association*, 61, 573-579.
- Ramírez Lara E., Miranda Guardiola R., Gracia Vásquez Y., Balderas Rentería I., Bravo Álvarez H., Sosa Echeverría R., Sánchez Álvarez P., Alarcón Jiménez A., Torres M.C., **Kahl J.D.W.**, 2010: Chemical composition of rainwater in northeastern México. *Atmosfera*, 23(3), 213-224.
- Thishan Dharshana<sup>M</sup>, K. G., S. Kravtsov, and **J. D. W. Kahl**, 2010: Relationship between synoptic weather disturbances and particulate matter air pollution over the United States, *JGR-Atmospheres*, 115, D24219, doi:10.1029/2010JD014852.
- Kahl, J.D.W.**, 2008: Reflections on a large-lecture, introductory meteorology course: Goals, assessment and opportunities for improvement. *Bulletin of the American Meteorological Society*, 89(7), 1029-1034.
- McConnell, J.R., P. Ross-Edwards, G.L. Kok, M.G. Flanner, C.S. Zender, E.S. Saltzman, J.R. Banta, D.R. Pasteris, M.M. Carter<sup>M</sup> and **J.D.W. Kahl**, 2007: 20<sup>th</sup> century industrial black carbon emissions altered Arctic climate forcing. *Science*, **317**, 1381-1384.

- Sosa-Echeverría, R., Bravo-Alvarez, H., Sánchez-Alvarez, P., Soto-Ayala, R., Alarcón-Jiménez, A. and Kahl, **J.D.W.**, 2007: Determinación de partículas suspendidas totales durante cinco cruceros de investigación en la plataforma continental del Golfo de Mexico. [Determination of total suspended particulates during five research cruises in the continental shelf of the Gulf of Mexico]. *Ingeniería Investigación y Tecnología* [Engineering Research and Technology], **8**(2), 71-83.
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- Kahl, J.D.**, R.C. Schnell and P.J. Sheridan, 1992: Real-time forecasting of atmospheric transport. In H. van Dop, ed., *Air Pollution Modeling and Its Application IX*, Plenum Press, New York, pp. 351-355.
- Khalsa, S.J.S., J.R. Key, **J.D. Kahl**, M.C. Serreze, R.C. Schnell and J.J. Bates, 1991: A TOVS temperature sounding record for the Arctic. Extended Abstracts Volume, Fifth Climate Variations Conference, Denver, Colorado, 14-18 October 1991, American Meteorological Society.

- Stone, R.S. and **J.D. Kahl**, 1991: Inter-relationships between cloud radiative effects, transport processes, and boundary-layer structure at the South Pole during winter. Presented at the Symposium on the Tropospheric Chemistry of the Antarctic Region, Boulder, Colorado, June 1991.
- Harris, J.M. and **J.D. Kahl**, 1991: A descriptive atmospheric transport climatology for the Mauna Loa Observatory, using clustered trajectories. Extended Abstracts Volume, Seventh Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.
- Kahl, J.D.**, S.M. Skony<sup>M</sup>, P.J. Sheridan, R.C. Schnell and M.C. Serreze, 1991: A comprehensive collection of Arctic meteorological soundings for use in climate studies. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Stone, R.S. and **J.D. Kahl**, 1991: Cloud radiative effects and associated changes in tropospheric temperatures and winds at the south pole during the Austral winter. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Hansen, A.D.A., R.C. Schnell, **J.D. Kahl**, B.A. Bodhaine and V.N. Kapustin, 1991: Comparison of measurements of aerosol black carbon at Barrow, Alaska, and Wrangel Island, USSR: An approach to estimating the deposition of soot to snow and ice surfaces. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Schnell, R.C., P.J. Sheridan and **J.D. Kahl**, 1991: AGASP-III, Polar Lows and CEAREX Norwegian Arctic flight program, Spring 1989. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Sheridan, P.J., R.C. Schnell and **J.D. Kahl**, 1991: Individual particle analysis of the springtime Arctic aerosol, 1983-1989. Proceedings, International Conference on the Role of the Polar Regions in Global Change, Fairbanks, Alaska.
- Jaffe, D.A., R.E. Honrath, **J.D. Kahl** and S.-M. Li, 1990: Nitrogen oxide measurements at Barrow, Alaska. Presented at the 41st Arctic Science Conference, Arctic Division of the AAAS, Anchorage, Alaska, October 1990.
- Kahl, J.D.** and R.C. Schnell, 1990: Air trajectory support for MISERS GOLD. In MISERS GOLD Symposium Report, Defense Nuclear Agency Report POR7352-2, J. Smith, ed., pp. 365-405.
- Kahl, J.D.**, A.D.A. Hansen and R.C. Schnell, 1989: A methodology for estimating regional emissions of black carbon aerosol in the Arctic. EURASAP International Conference on Aerosols and Background Pollution, Galway, Ireland.

- Schnell, R.C. and **J.D. Kahl**, 1989: Arctic haze: Long range pollution of the polar atmosphere. EURASAP International Conference on Aerosols and Background Pollution, Galway, Ireland.
- Kahl, J.D.**, 1989: Confidence limits on source-receptor relationships determined by ensemble trajectory analysis. Extended Abstracts Volume, Sixth Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.
- Hansen, A.D.A., B.A. Bodhaine, T.J. Conway and **J.D. Kahl**, 1989: Long-range transport of combustion plumes across the Arctic: Preservation of signature ratios of aerosol black carbon, CO<sub>2</sub>, and CH<sub>4</sub>. Presented at the 1989 Annual meeting of the American Association for Aerosol Research, Reno, Nevada.
- Kahl, J.D.** and P.J. Samson, 1988: Some limitations of rawinsondes for pollutant transport studies. Extended Abstracts Volume, Symposium on Lower Tropospheric Profiling: Needs and Technologies, American Meteorological Society.
- Kahl, J.D.**, J.M. Harris, G.A. Herbert and M.P. Olson, 1988: Intercomparison of long-range trajectory models applied to Arctic haze. In H. van Dop, ed., *Air Pollution Modeling and Its Application VII*, Plenum Press, New York, pp. 175-185.
- Schnell, R.C., **J.D. Kahl**, H.A. Bridgman and G.A. Herbert, 1988: A "major" Arctic haze event north of Point Barrow, Alaska, April 1986. Extended Abstracts Volume, Second International Conference on Polar Meteorology and Oceanography, American Meteorological Society.
- Schnell, R.C., **J.D. Kahl**, H.A. Bridgman, G.A. Herbert, B.A. Bodhaine and S.J. Oltmans, 1988: Aerosol formation and distribution in the Arctic during AGASP-II, March-April 1986. In *Atmospheric Aerosols and Nucleation*, P.E. Wagner and G. Vali, eds., Springer-Verlag, Berlin, 32-35.
- Oltmans, S.J., P.J. Sheridan, R.C. Schnell, R.E. Peterson, J.W. Winchester, L.A. Barrie, **J.D. Kahl** and W.D. Komhyr, 1988: Springtime surface ozone fluctuations at high Arctic latitudes and their possible relationship to atmospheric bromine. Presented at the IAMAP/IUGG Quadrennial Ozone Symposium, 8-13 August, Gottingen, FRG.
- Oltmans, S.J., P.J. Sheridan, R.C. Schnell, J.W. Winchester, L.A. Barrie and **J.D. Kahl**, 1988: Springtime surface ozone fluctuations at high Arctic latitudes and their possible relationship to atmospheric bromine. Presented at the Polar Ozone Workshop, 9-13 May, Snowmass, Colorado.
- Kahl, J.D.** and P.J. Samson, 1986: Quantification of interpolation errors in trajectory calculations. Extended Abstracts Volume, Fifth Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society.

- Samson, P.J., J.L. Moody, **J. Kahl** and J. Keeler, 1986: Uncertainties in quantifying source-receptor relationships for atmospheric acids. In *The Chemistry of Multiphase Atmospheric Systems*, W. Jaeschke, ed., D. Reidel Publ. Co., Dordrecht, Holland, 727-740.
- Kahl, J.**, G.J. Keeler, M. Fernau and P.J. Samson, 1985: Evaluation of a regional-scale acid deposition model. Paper 85-5.2, presented at the 1985 annual meeting of the Air Pollution Control Association, Detroit, MI.
- Moody, J.L., **J. Kahl** and P.J. Samson, 1984: Initial investigation of the sensitivity of source-receptor relationships to nonlinear atmospheric transformation. In *Meteorology of Acid Deposition*, P.J. Samson, ed., Air Pollution Control Assoc., Pittsburgh, PA, 225-240.
- Kahl, J.**, G.J. Keeler and P.J. Samson, 1984: The sensitivity of sulfate source-receptor relationships to meteorological variability. Paper 84-25.6, presented at the 1984 annual meeting of the Air Pollution Control Association, San Francisco, CA.

#### Reports, theses, videos, other [21]:

- Kahl, J.D.W.**, 2024: "Weathergami", a new innovation in the display and interpretation of climate data. Feature highlighted in the September, 2024 Bulletin of the American Meteorological Society, 105(9), p. 619-620.
- Kahl, J.D.W.**, 2023: Atmospheric Optics. Presented at the Urban Ecology Center's Backyard Naturalist Series, [https://www.youtube.com/watch?v=NFfG-Q\\_27S8](https://www.youtube.com/watch?v=NFfG-Q_27S8).
- Kahl, J.D.W.**, 2022: Clouds. Presented at the Urban Ecology Center's Backyard Naturalist Series, <https://www.youtube.com/watch?v=dtg1lsQu3mc>
- Kahl, J.D.W.**, 2007: Obituary of David H. Miller. *Bulletin of the American Meteorological Society*, 88(1), p. 101.
- Bravo A. H., Sosa E. R., Sanchez A. P., Alarcon J.A. L., Jaimes P. M., **Kahl J. D. W.**, Barrios R. J., Soto A. R., Bueno L. E., Gamboa A. R., Gamboa R. T., Abreu S. J., 2003: Evaluacion de la contaminacion atmosferica en el sur del Golfo de Mexico. Campana Oceanografica SGM-7 (noviembre-diciembre de 2002). Seccion de Contaminacion Ambiental, Centro de Ciencias de la Atmosfera, Instituto de Ciencias del Mar y Limnologia, UNAM.
- Kahl, J.D.W.**, 2000: CNN Meteorology Today Volume 2, Video Worksheets. Brooks/Cole Publishing Co., Pacific Grove, CA, 42 pp.
- Kahl, J.D.W.**, 1998: Balloons that rise, clouds that fall, and air that crushes. Presentation in the UWM Science Bag series. <https://www.youtube.com/watch?v=TncyWepYX24>
- Kahl, J.D.W.** and D.M. Bacon, 1997: Data Set Documentation for the Arctic Ocean Sounding Archive. National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado.

- Kahl, J.D.**, R.S. Stone, M.C. Serreze, S. Shiotani and R.C. Schnell, 1992: Tropospheric temperature trends in the Arctic: 1958-1986. In *Climate Monitoring and Diagnostics Laboratory No. 20, Summary Report 1991*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Serreze, M.C., **J.D. Kahl** and S. Shiotani, 1992: The Historical Arctic Rawinsonde Archive Documentation Manual. Special Report No. 2, National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado.
- Kahl, J.D.**, M.C. Serreze and R.C Schnell, 1992: The historical Arctic Rawinsonde Archive. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.**, R.C. Schnell and P.J. Sheridan, 1992: Trajectory forecasting for Misers Gold. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.**, M.C. Serreze and R.C Schnell, 1992: Temperature inversions in the Canadian Arctic. In *Climate Monitoring and Diagnostics Laboratory No. 19, Summary Report 1990*, E. Ferguson and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.**, 1991: A temperature inversion climatology for Barrow, Alaska: 1976-1985. In *Geophysical Monitoring for Climatic Change No. 18, Summary Report 1989*, W.D. Komhyr and R.M. Rossen, eds. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.** and S.M. Skony, 1990: Processing of historical meteorological data in the Arctic. Final report to NOAA, 125 pp.
- Kahl, J.D.** and R.C. Schnell, 1989: Air trajectory support for MISERS GOLD. Final report to the Defense Nuclear Agency, Washington, DC, Project No. DNA IACRO 89-855.
- Kahl, J.D.**, 1989: Estimates of uncertainty in trajectory ensembles. In *Geophysical Monitoring for Climatic Change No. 17, Summary Report 1988*, J.W. Elkins, ed. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.** and A.D.A. Hansen, 1989: Determining Regional emissions of aerosol black carbon in the Arctic. In *Geophysical Monitoring for Climatic Change No. 17, Summary Report 1988*, J.W. Elkins, ed. National Oceanic and Atmospheric Administration, Air Resources Laboratory, Boulder, Colorado.
- Kahl, J.D.**, 1987: Interpolation of synoptic-scale winds: Implications for boundary-layer trajectory accuracy. Ph.D. dissertation, University of Michigan, Ann Arbor, 199 pp.

Samson, P.J., M.E. Fernau, M.S. Halpert, **J.D. Kahl** and G.J. Keeler, 1984: Estimation of the potential and probable source regions for acid precipitation. Final Report to the Department of Energy, Project no. DOE-AC02-82ER60058.

**Kahl, J.D.**, 1983: Sensitivity of sulfate source-receptor relationships to meteorological variability. Master's thesis, University of Michigan, Ann Arbor, 43 pp.

#### **GRANTS:**

2022: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) awards:  
summer, \$3000  
2022-23 academic year, \$3000

2021: UW-Milwaukee RAF (Research Assistance Funds) award: graduate student support, \$4700.

2020: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) awards:  
summer, \$2000 (one student)  
2020-2021 academic year, \$9000 (three students).

2020: UW-Milwaukee COVID-19 Sabbatical Relief award, \$950.

2019: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$3000.

2015: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Grant, \$250.

2014: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Liason Grant, \$1000.

2013: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Grant, \$500.

2013: UW-Milwaukee Center for International Education, Faculty Travel Grant, \$300.

2013: UW-Milwaukee WiscAMP (Wisconsin Louis Stokes Alliance for Minority Participation mentor award \$3,500.

2012: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$2000.

2011: UW-Milwaukee Sabbatical Enhancement Award, \$6,000.

2011: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$2000.

2011: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.

2010: UW-Milwaukee SURF (Support for Undergraduate Research Fellows) Award, \$3000.

2010: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.

2008: UW-Milwaukee Center for Latin American and Caribbean Studies, Course Development Grant, \$2000.



- 2008: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award, \$500.
- 2006: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award, \$500.
- 2006: UW-Milwaukee Center For International Education, Faculty Travel Grant, \$500.
- 2005: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award: \$500.
- 2005: UW- Milwaukee Center for International Education, Faculty Travel Award: \$300.
- 2004: UW-Milwaukee Center for Latin American and Caribbean Studies, Faculty Travel Award to support a visit and presentation of a seminar at the Atmospheric Sciences Center, National Autonomous University of Mexico, Mexico City, Mexico, \$500.
- 2003: Wisconsin Space Grant Research Consortium, "Student-Friendly Tools for Visualizing Arctic Climate Change", \$23K.
- 2003: NASA, "Spatial and Temporal Variability in Fluxes, Source Regions, and Atmospheric Transport of Impurities on the Southern Greenland Ice Sheet: Implications for Ice-Sheet Elevation and Mass Balance", co-investigator with J. McConnell (Desert Research Institute), \$100K.
- 2002: Center for Water Security, Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute, "Realtime Assessment of the Fate of Hazardous Atmospheric Material in the Great Lakes Basin", \$20K.
- 2002: Fulbright Scholar Program, Council for International Exchange of Scholars, U.S. Department of State, Bureau of Educational and Cultural Affairs, "Investigation of the sources and atmospheric transport pathways of air pollution contributing to the deterioration of ancient monuments in Mexico", \$18,000.
- 2001: UW-Milwaukee Center for Latin American and Caribbean Studies, "Research on Air Pollution in Mexico", \$500.
- 2000-02: Environmental Protection Agency. "Assessment of Atmospheric Transport Pathways". \$50K.
- 1999-02: National Science Foundation, Office of Polar Programs: "Seasonal differences in air-snow chemical relationships at Summit, Greenland". \$90K.
- 1999: University of Wisconsin System PK-16 Initiative, "Continuing and Enhancing the CoVis (Collaborative Visualization) Project with the Inclusion of a Mathematics Visualization Module - Year 2", \$33,215. Co-PI with R. O'Malley.
- 1998: University of Wisconsin System PK-16 Initiative, "Continuing and Enhancing the CoVis (Collaborative Visualization) Project with the Inclusion of a Mathematics Visualization Module", \$45,224. Co-PI with R. O'Malley.
- 1998: University of Wisconsin-Extension: "The UWM/MCW Center for Science Education CoVis Project", \$39,000. P.I.
- 1998: University of Wisconsin-Extension: "Implementation of a Merger between CoVis and the Mathematics Visualization Projects", \$10,000. Co-PI with R. O'Malley.

- 1997: Wisconsin Educational Communications Board: "A Pilot Project for Collaborative Science Education at Nicolet High School Using CoVis", \$20,000. Co-PI with M. Goodman.
- 1997-98: National Oceanic and Atmospheric Administration, Climate and Atmospheric Research Program: "Archaeology and Analysis of Historical Atmospheric Sounding Data in Arctic Regions". \$150,000.
- 1997-98: UW-Milwaukee Graduate School Research Committee Award, "Developing a Standard Atmosphere for the Polar Regions", \$12,000.
- 1996-97: National Science Foundation, "Air/Snow Transfer to the Greenland Ice Sheet During Winter", \$19,000.
- 1995-96: National Oceanic and Atmospheric Administration, Climate and Atmospheric Research Program: "Archival and Analysis of Historical Meteorological Sounding Data in the Arctic". \$70,000.
- 1993-95: National Science Foundation, "Long-Range Atmospheric Transport and its Relationship to Air/Snow/Ice Chemistry at Summit, Greenland". \$167,000.
- 1992-94: National Science Foundation, "Atmospheric Water Vapor over the Arctic and its Relationships with Synoptic Variability and Surface Conditions". Co-P.I. with M.C. Serreze and R.G. Barry, \$162,000.
- 1992-93: Electric Power Research Institute: "Atmospheric Transport Processes Influencing Visibility Degradation in the Grand Canyon". \$44,000.
- 1991: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory: "Numerical Modeling of Turbulent Diffusion in the Arctic". \$6,200.
- 1990-92: National Oceanic and Atmospheric Administration, Climate and Global Change Program, "Development and Trend Analysis of an Arctic TOVS Temperature Sounding Record". Co.I. with S.J.S. Khalsa (P.I.), R.C. Schnell (Co.I.) and M.C. Serreze (Co.I.), \$274,000
- 1990: National Oceanic and Atmospheric Administration, Climate Monitoring and Diagnostics Laboratory, "Processing of Historical Meteorological Data in the Arctic". \$5,000.
- 1989-91: National Science Foundation, "Climatology of the Arctic Planetary Boundary Layer and Temperature Inversion". P.I. with R.C. Schnell, \$66,000.
- 1989-91: National Oceanic and Atmospheric Administration, Climate and Global Change Program, "Acquisition, Assimilation and Trend Analysis of Historical Temperature Sounding Data in the Arctic". Co-P.I. with R.C. Schnell, \$243,000.
- 1989-91: Electric Power Research Institute: "Arctic Climate Trends Analysis". Co-P.I. with R.C. Schnell and M.C. Serreze, \$91,000.
- 1989-90: Defense Nuclear Agency, "MISERS GOLD Trajectory Support". Co-P.I. with R.C. Schnell, \$56,000.
- 1985-87: Electric Power Research Institute, "Uncertainty in Estimating Atmospheric Transport over Regional Scales". Student Investigator, P.J. Samson, P.I. \$60,000.

**PARTICIPATION IN FIELD EXPERIMENTS:**

US-Russia Arctic Research Support Planning Mission, Cherskiy (Kolyma Region), Siberia, Russia, April 1993. <http://youtu.be/GGKNzYN3BtE>

MISERS GOLD Air Trajectory Forecasting Support, Silver Spring, MD, May-June 1989.

PRECP VI, Champaign, Illinois, June 1988.

**CONFERENCE ORGANIZATION:**

Third International Meeting on Environmental Biotechnology and Engineering, Palma de Mallorca, Spain, 21-25 September 2008:

- keynote speaker
- member of the International Scientific Committee

Session chair for Session 2, Large Scale Atmospheric Characteristics, Fourth AMS Conference on Polar Meteorology and Oceanography, Dallas, Texas, 15-20 January 1995.

Session leader for Session FM6, Regional Meteorological Patterns, Regional Photochemical Measurement and Modeling Studies Symposium, San Diego, California, 7-12 November 1993.

Session co-chair for Session 5, Transport and Radiation, Symposium on the Tropospheric Chemistry of the Antarctic Region, Boulder, Colorado, 3-6 June 1991.

**REVIEWER FOR:****Technical journals:**

*Aerosol and Air Quality Research*  
*Assessment and Evaluation in Higher Education*  
*Atmosfera*  
*Atmosphere*  
*Atmosphere-Ocean*  
*Atmospheric Chemistry and Physics*  
*Atmospheric Environment*  
*Atmospheric Pollution Research*  
*Atmospheric Research*  
*Boundary-Layer Meteorology*  
*Bulletin of the American Meteorological Society*  
*Chemosphere*  
*Climate Dynamics*  
*Dynamics of Atmospheres and Oceans*  
*Earth and Space Science*

*Energy Reports*  
*Environmental Pollution*  
*Environmental Science and Technology*  
*Geology, Ecology and Landscapes*  
*Geophysical Research Letters*  
*Global Biogeochemical Cycles*  
*Hydrological Processes*  
*International Journal of Biometeorology*  
*International Journal of Environmental Research  
 and Public Health*  
*International Journal of Climatology*  
*Journal of Agricultural, Biological and  
 Environmental Statistics*  
*Journal of the Air and Waste Management  
 Association*

<i>Journal of Applied Meteorology and Climate</i>	<i>Nature</i>
<i>Journal of Atmospheric and Oceanic Technology</i>	<i>Nature/Scientific Reports</i>
<i>Journal of Climate</i>	<i>PLOS One</i>
<i>Journal of Cultural Heritage</i>	<i>Physics and Chemistry of the Earth</i>
<i>Journal of Environmental Engineering and Science</i>	<i>Polar Record</i>
<i>Journal of Environmental Protection</i>	<i>Quarterly Journal of the Royal Meteorological Society</i>
<i>Journal of Geophysical Research – Atmospheres</i>	<i>Science of the Total Environment</i>
<i>Journal of Geophysical Research – Oceans</i>	<i>Sustainability</i>
<i>Journal of Glaciology</i>	<i>Tellus</i>
<i>Journal of Meteorological Research</i> (formerly <i>Acta Meteorologica Sinica</i> )	<i>Theoretical and Applied Climatology</i>
<i>Meteorological Applications</i>	<i>Toxics</i>
<i>Open Journal of Air Pollution</i>	<i>Weather and Forecasting</i>

**Funding agencies:**

<i>National Science Foundation (NSF)</i>	<i>Cornell Theory Center (Center for Theory and Simulation in Science and Engineering)</i>
<i>National Aeronautics and Space Administration (NASA)</i>	<i>Hong Kong Research Grants Council</i>
<i>National Oceanic and Atmospheric Administration (NOAA), Climate and Global Change Program</i>	<i>New Zealand Foundation for Research, Science and Technology</i>
<i>Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)</i>	<i>Swiss National Science Foundation</i>
<i>U.S. Civilian Research and Development Foundation (CRDF)</i>	<i>U.K. Natural Environment Research Council</i>
<i>Environmental Protection Agency (EPA)</i>	<i>Icelandic Centre for Research</i>
<i>International Science Foundation (ISF)</i>	<i>University of Texas-San Antonio</i>
	<i>Mexico National Council of Science and Technology (CONACyT)</i>

**Book publishers, popular magazines:**

Intergovernmental Panel on Climate Change (IPCC): Second Scientific Assessment of Climate Change	West Educational Publishing
American Geophysical Union monograph series	University of Wisconsin Press
National Geographic magazine	Brooks/Cole Publishing
Cambridge University Press	Gareth Stevens Publishing
Elsevier	Scholastic, Inc.
	Springer-Verlag
	Carolrhoda Books

**PROFESSIONAL MEMBERSHIPS:**

American Meteorological Society, American Geophysical Union, Greater Milwaukee Chapter of the American Meteorological Society (offices held: President, Vice-President, Treasurer).

**PARTICIPATION ON ADVISORY AND REVIEW PANELS:**

Council for International Exchange of Scholars (CIES) 2007-08 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 18-19 October 2007.

National Science Foundation, Collaborations in Mathematical Geosciences review panel, Arlington, VA, 4-6 June 2007.

Council for International Exchange of Scholars (CIES) 2007-08 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 5-6 October 2006.

Council for International Exchange of Scholars (CIES) 2006-07 Fulbright Mexico/Andean Peer Review Committee, Washington, DC, 12-13 February 2006.

NSF/CONACyT International Workshop on the Influence of Air Quality on Mayan Monuments in Mesoamerica, Cancun, Mexico, 17-21 October 2005.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 12-13 September 2004.

Environmental Protection Agency (EPA) proposal review panel, "Assessing the consequences of global change for air quality", Washington, DC, 11-12 December 2002.

National Science Foundation Arctic Workshop, West Lafayette, IN, 10-12 November 2002.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 21-22 August 2002.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 12-13 September 2001.

Environmental Protection Agency (EPA) Small Business Innovative Research (SBIR) Proposal Review panel, Washington, DC, 13-14 September 2000.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Proposal Review panel, Washington, DC, 18 August 2000.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Metro Grants Proposal Review panel, Washington, DC, 13-14 July 2000.

Environmental Protection Agency (EPA) Exploratory Research Proposal Review panel, Washington, DC, 27-28 October 1999.

Environmental Protection Agency (EPA) Environmental Monitoring for Public Access and Community Tracking (EMPACT) Metro Grants Proposal Review panel, Washington, DC, 13-14 July 1999

Environmental Protection Agency (EPA) Project MOHAVE Review Panel, 1998-1999

Environmental Protection Agency (EPA) Exploratory Research Proposal Review panel, Durham, NC, 29-31 March 1993

Workshop on Ozone Research Monitoring and Tracking Progress, Environmental Protection Agency (EPA), Research Triangle Park, North Carolina, 22 September 1992.

Workshop on Snow/Atmospheric Chemical Exchange, sponsored by the National Science Foundation under the auspices of the International Commission on Snow and Ice, Durham, New Hampshire, 6-7 March 1992.

Environmental Protection Agency (EPA) Project MOHAVE Planning Workshop, Denver, Colorado, 30 April - 1 May 1991.

### UNIVERSITY COURSES TAUGHT (at University of Wisconsin-Milwaukee):

Required courses *Air Pollution Meteorology*, graduate/undergraduate  
for Atm Sci majors: *Introduction to Meteorology*, undergraduate  
*Atmospheric Thermodynamics*, graduate/undergraduate

Elective courses *Micrometeorology*, graduate/undergraduate  
for Atm Sci majors: *Air Pollution Modeling*, graduate  
*Mexico: Air Pollution and Ancient Cultures*  
(faculty-led study abroad course), graduate/undergraduate  
*Scientific Programming using FORTRAN*, graduate/undergraduate

Service courses: *Survey of Meteorology*, undergraduate  
*Earth, Air, Fire and Water*, undergraduate  
*Principles of Forecasting the Weather*, undergraduate  
*Thunderstorms, Tornadoes and Hurricanes*, undergraduate  
*The Origin, Composition, and Structure of the Planetary Atmospheres*,  
undergraduate  
*Trigonometry*, undergraduate  
*Essentials of Algebra*, undergraduate  
*Algebraic Literacy I*, undergraduate

Freshman Seminar: *There's No Zone Like the Ozone: Environmental Aspects of Weather*

### GRADUATE STUDENT ADVISEES (UW-Milwaukee unless otherwise indicated):

Danica Brezovar  
(M.S. 2024) Thesis: "Mixdown altitudes as a method of forecasting peak wind gusts under high-pressure conditions"  
(co-advised with Dr. Clark Evans)

Victoria Lang  
(M.S. 2022) Thesis: "Do state fairs with fireworks displays impact PM2.5 levels in nearby communities?"

Shayna Fever (M.S. 2021) Thesis: "Investigating the potential of a combined air quality-heat index in predicting mortality"

Teresa Turner (M.S. 2020) Thesis: "Predicting Peak Wind Gusts During Specific Weather Types with the Meteorologically Stratified

	Gust Factor Model”
Chelsea Picha (M.S., 2018)	non-thesis option
Lily Chapman (M.S., 2017)	Thesis: “Performance test of the Pasquill Stability Classification Scheme”
Austin Harris (M.S., 2016)	Thesis: “On establishing a climatology of gust factors and assessing their ability to forecast wind gusts in Milwaukee, Wisconsin”
Rolando Olivas Saunders (Ph.D, 2013)	Dissertation: “Improved estimation of PM <sub>2.5</sub> using Lagrangian satellite-derived aerosol optical depth”. <a href="http://dc.uwm.edu/cgi/viewcontent.cgi?article=1147&amp;context=etd">http://dc.uwm.edu/cgi/viewcontent.cgi?article=1147&amp;context=etd</a>
Diana Maribel Facundo Torres (Ph.D, 2011) Monterrey, Mexico	Dissertation: " Atmospheric deposition in an industrial zone in northeast Mexico ". (J. Kahl was an external reviewer.)
Evangelina Ramírez (Ph.D, 2010) University of Nuevo Leon, Monterrey, Mexico	Dissertation: "Development of a model for the evaluation of emissions for acid deposition". (J. Kahl was an external advisor.)
Thishan Dharshana (M.S., 2009)	Thesis: "Relationship between daily weather conditions and particulate matter air pollution over the United States" (J. Kahl and Prof. S. Kravtsov, co-advisors)
Laura Carnahan (M.S., 2009)	Thesis: “Statistical significance testing for trajectory grouping techniques”
Megan Carter (M.S., 2006)	Thesis: “Atmospheric transport climatology of snow days in Greenland”
N. Manju (Ph.D, 2005) University of Madras, India	Dissertation: "Assimilative capacity and atmospheric dispersion modeling studies for an industrial zone of ". Chennai (J. Kahl was an external reviewer.)
Kazumi Nakada (M.S., 2005)	non-thesis option
Jessica Miller (M.S., 2002)	Thesis: “A three-dimensional residence time analysis of potential transport to two locations”
Jennifer Galbraith (M.S., 1997)	Thesis: “Long-range Atmospheric Transport to the Summit of the Greenland Ice Sheet”
Desong Liu (M.S., 1994)	Thesis: "The Meteorological Feasibility of Controlling

- Emissions along Clean-Air Corridors to the Grand Canyon"
- Suzanne Skony (M.S., 1992) Thesis: "Thermal Structure of the Lower Troposphere Over the Western Arctic Ocean"
- John Roth (M.S., 1991) Thesis: "A Study of the Relationship Between Atmospheric Transport and Summer Weather Types in Northeastern Colorado Using Cluster Analysis"

**UNDERGRADUATE STUDENT RESEARCH ADVISEES**

(UW-Milwaukee unless otherwise indicated):

Tyler Bilski 2024  
Maricela Solano 2023-24 (UNACAR, Ciudad del Carmen, Mexico)  
Kacper Zaprzalka 2022-23  
Dao Wang 2020-21  
Gus Kaiser 2020-21  
Brandon Selbig 2019-21  
Erica Scotty 2012-13  
Kevin Horwitz 2002-03  
Martin Pulrang 2000-02  
Mark Jansen 2000-01  
Dewayne Martinez 1995-98  
Donna Charlevoix 1992-93