Amy L. Stuart

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LEADERSHIP EXPERIENCE

Concentration lead, Environmental and Occupational Health 2018 – present
College of Public Health, USF, Tampa, FL
Lead the development and management of curriculum, admissions, and students for the graduate concentrations (MPH, MSPH, PhD) in Environmental and Occupational Health.

President, Faculty Assembly 2018 – 2022
College of Public Health, University of South Florida (USF), Tampa, FL
Led the college faculty governance body, including chairing assembly meetings, participating in the decision making of the college executive committee, facilitating transparency in committee activities and reporting, facilitating and overseeing elections to committees and university councils, overseeing revisions to the governance manual, and acting as the liaison with college and university leadership on all issues pertinent to faculty governance.

Leadership team for degree development, BS Environmental Engineering 2019 – 2022
Department of Civil & Environmental Engineering (CEE), College of Engineering, USF, Tampa, FL
Co-developed the curriculum of coursework for a new Bachelor of Science in Environmental Engineering that was launched in fall of 2021. This has included finding, evaluating, and vetting available courses, developing curriculum for new and revised courses, organizing course study plans, writing materials for university approval of the curriculum, for recruitment, and for accreditation.

Program lead, Environmental Health degree programs 2005 – 2018
Department of Environmental and Occupational Health, College of Public Health, USF, Tampa, FL
Led program curriculum development for the graduate programs in Environmental Health (MPH, MS, PhD). Developed joint curriculum, coursework, and degrees between the Environmental Health, the Environmental and Water Studies Program in CEE, the Environmental Science and Policy program, the Dept. of Geography, and the Dept. of Anthropology.

Certificate director, Environmental Health graduate certificate 2008 – 2018
Department of Environmental and Occupational Health, College of Public Health, USF, Tampa, FL
Founded a 12-unit certificate program to serve students in other majors and professionals. Review of certificate program applications for admittance and completion. Development and assessment of certificate outcomes.

Chair and vice-chair, Student awards committee 2008 – 2013
Higher Education Division of the Education Council, Air and Waste Management Association
Oversaw the higher education scholarship and fellowship programs of a national scholarly society. This included overseeing the entire process of these programs, including developing materials for program announcements, developing schedules and plans for program processes, recruiting committee and reviewer volunteers, coordinating with the society staff, preparing and synthesizing evaluation materials, preparing award dissemination materials, and reporting committee activities to the society. Chair (2011 – 2013); Vice chair (2008 – 2011)

President, Student chapter, Society of Women Engineers 1993 – 1994
Stanford University, Stanford, California
Oversaw the activities of an active student society chapter including hosting the annual national meeting.

EDUCATION

Ph.D. in Civil and Environmental Engineering 2002
Stanford University, Stanford, CA

M.S. in Civil Engineering (Environmental Engineering and Science program) 1997
Stanford University, Stanford, CA

B.S. in Chemical Engineering 1994
Stanford University, Stanford, CA

ACADEMIC AND PROFESSIONAL POSITIONS

Full professor Aug. 2017 – present
University of South Florida (USF), Tampa, FL
College of Public Health; Interim Dean: J. Wolfson, DrPH, JD

Joint faculty, Dept. of Civil & Environ. Eng., College of Engineering Jan. 2005 – present
Joint courtesy faculty, Center for Urban Transportation Research, USF Aug. 2009 – present
Associated faculty, Patel College of Global Sustainability, USF Aug. 2011 – present

Associate professor Aug. 2011 – Aug. 2017
Assistant professor Jan. 2005 – Aug. 2011
Dept. of Environmental & Occupational Health (primary); Chair: T. Bernard, Ph.D., P.E.
Dept. of Civil & Environmental Engineering (joint); Chair: M. Gunaratne, Ph.D., P.E.

Visiting researcher Nov. 2022 – May 2023
School of Environment; host: Jennifer Salmond, Ph.D.
University of Auckland, Auckland, New Zealand

Visiting research fellow Sept. 2013 – May 2014
School of Population Health; host: Jane Heyworth, Ph.D.
University of Western Australia, Perth, Australia

Visiting scientist July 2010
Community Modeling and Analysis System Center; host: Adel Hanna, Ph.D.
Institute for the Environment, University of North Carolina, Chapel Hill, NC

Assistant research scientist and graduate faculty Aug. 2003 – Nov. 2004
Dept. of Atmospheric Sciences; supervisor: John Nielsen-Gammon, Ph.D.
Texas A&M University, College Station, TX

Science fellow and postdoctoral researcher Sept. 2002 – July 2003
Center for International Security and Cooperation; supervisor: Dean Wilkening, Ph.D.
Department of Geological & Environmental Sciences
Stanford University, Stanford, CA

Graduate research assistant Sept. 1997 – Aug. 2002
Dept. of Civil and Environmental Engineering; advisor: Mark Z. Jacobson, Ph.D.
Stanford University, Stanford, CA

Visiting graduate researcher June – Aug. 1998
Mesoscale and Microscale Meteorology; advisors: Mary Barth, Ph.D.; William Skamarock, Ph.D.
National Center for Atmospheric Research, Boulder, CO

Associate environmental consultant Sept. 1994 – Aug. 1996
Principals: Shari Libicki, Ph.D. and Stan Hayes, Ph.D.
Environ Corporation, Emeryville, CA

HONORS AND AWARDS

Sigma Xi, The Scientific Research Honor Society, member	2019
Certificate of acknowledgement for mentorship, Undergraduate Research, USF	2009
National Science Foundation CAREER grant award	2008
Induction into Delta Omega, honorary society in public health	2008
Recognition award for research contributions, College of Public Health, USF	2006, 2007
Certificate of Appreciation, Environmental Water Resource Institute	2007
Certificate of Appreciation, Tampa Bay district of the Florida Environmental Health Assoc.	2007
Profiled in the Air and Waste Management Association Tampa Bay section newsletter	2007
Profiled in the USF College of Public Health alumni newsletter	2007
Certificate of appreciation, Air & Waste Management Association	2005
US Environmental Protection Agency STAR Graduate Fellowship	1999-2002
National Science Foundation graduate fellowship	1996-1999
Stanford in Government environmental fellowship	1994
Outstanding service award, Stanford Society of Women Engineers	1994
Stanford undergraduate research fellowship	1993
Cap and Gown honor society member	1993
United States presidential scholar	1989
National merit scholar	1989

PROFESSIONAL CERTIFICATIONS

Fundamentals of Engineering. Engineering intern no. 1100011799. Florida Board of Professional Engineers.

SPECIALIZED TRAINING AND WORKSHOPS (SELECTED)

Generative AI, Open Access, and Copyright. USF Health Libraries. March 19, 2024.
Conflict Management. Academic Impressions. June 16, 2021.
Inclusive Teaching Techniques Workshop, USF, Feb. 12, 2021.
From Practice to Policy Using a Community-Based Participatory Research Approach. Community-Campus Partnerships for Health. Jan. 27, 2021.
Environmental Health Programming that Inspires and Excites, ASPPH. Oct. 7, 2019.
Teaching Essentials. University and College Teaching. Online Canvas course. June-Aug 2019.
Health in All Policies Workshop: The Case of Air Pollution, Urban Health, and Sustainability. World Health Organization (WHO). Washington, D.C., June 18–20, 2018.
Anthropology and Engineering: An Interdisciplinary Approach to Water Infrastructure. Institute of Advanced Study, Durham University, UK, May 22 – 25, 2017.
Academic Assessment Training, College of Public Health, USF, March 2016.
Spatial linear models in R, and Analyzing censored & truncated data in R, USF, October 21 – 22, 2015.
Copyright on Campus, College of Public Health, USF, October 2015.
Health Impact Assessment Training, Florida Department of Health, June 2014.
Leadership Institute Executive Transformation Program. University of South Florida. Spring 2011 – 2012.
Power Writing Workshop for Faculty, College of Public Health, USF, April 2011.
CALPUFF Training Course, TRC, Tampa, FL, March 10 – 12, 2010.
Transportation Conformity. The National Transit Institute. CUTR, USF. Jan. 27–29, 2009.
Better Courses, Better Tests, Better Students. College of Public Health, USF. January 31, 2008.
Essential Negotiation Skills for Public Health Professionals. College of Public Health, USF. Nov. 7, 2007.
Community of Science and COS Expertise Networking. College of Public Health, USF. October 5, 2007.
Assessment of Student Learning. Center for 21st Century Teaching, USF. Sept. 20, 2007.
CAREER Proposal Workshop, National Science Foundation / AEESP, Blacksburg, VA. July 29, 2007.
CMAQ Training Course, Community Modeling and Analysis Center, Chapel Hill, NC. July 26 – 27, 2007.
SMOKE Training Course, Community Modeling and Analysis Center, Chapel Hill, NC. July 23 – 25, 2007.
Sustainability Teaching Workshop, Center for Sustainable Engineering, UT - Austin, July 15 – 17, 2007.
Indo-US Collaborative on Environmental & Occupational Health Conference, Atlanta, June 26 – 29, 2006.

FUNDED GRANTS AND CONTRACTS

Grants/Contracts as a Lead Investigator

PI: principal investigator, I: investigator, §Postdoctoral scholar

A Stuart (PI). Distributed air quality monitoring for disadvantaged communities along the I-275/I-4 corridors. Hillsborough County Metropolitan Planning Organization, as a subcontract to a grant from the U.S. Environmental Protection Agency. July 2023 – March 2026.

A Stuart (PI). Traffic-related community air quality monitoring network in Hillsborough County. Hillsborough County Metropolitan Planning Organization, as a subcontract to a grant from the Federal Highway Administration State Transportation Innovation Council. Nov. 2023 – June 2024.

A Stuart (PI). Community-based air quality measurement for environmental justice in the Tampa Bay area. College of Public Health. Sept. 2023 – June 2024.

A Stuart (PI). Placement of Graduate Student Intern (Low-cost air quality monitoring). Hillsborough County Metropolitan Planning Organization. September 2022 – August 2023.

A Stuart (PI). Low-cost monitoring to reduce traffic-related air pollution exposures and inequality, a pilot study. Hillsborough County Metropolitan Planning Organization. September 2021 – August 2022.

A Stuart (PI), D Martinez-Tyson, J Beckstead, L Graham. Pilot study and methods development on the use of low-cost sensors and citizen science to reduce air pollution exposure inequality and empower vulnerable communities. College of Public Health. September 2021–June 2023.

X Li, Y Zhang, A Stuart (co-PI). Automated vehicle access, mobility, and affordability for system users. Federal Highway Administration (Subcontract from WSP USA Inc.) November 2019 – October 2021.

A Stuart (project PI) and R Bertini. Air pollution and equity impacts of the proposed Tampa Bay Next program from a Health in all Policies perspective. Project under the UTC: Center for Transportation, Environment, and Community Health. U.S. Department of Transportation. October 2018 – October 2019.

X Li, Y Zhang, A Stuart (project co-PI). Measuring the impact of emerging transportation technologies on community equity in economy, environment and public health. Project under the UTC: Center for Transportation, Environment, and Community Health. U.S. Department of Transportation. December 2017 – September 2018.

A Stuart (project PI) and F Mannering. Impacts of transit-oriented compact-growth on air pollutant concentrations and exposures in the Tampa region. Project under the UTC: Center for Transportation, Environment, and Community Health. U.S. Department of Transportation. November 2016 – November 2017.

J Volckens, J Peel, A Stuart (one PI of three). The Commuter Exposure Study: linking exposure, source-receptor models, and health. National Institute of Environmental Health Sciences. January 2012 – October 2016.

A Stuart (PI), R Michael. Development, application, and dissemination of systems-based computational approaches for understanding and reducing exposures to air pollutants. College of Public Health, University of South Florida. January – August 2015.

A Stuart (PI). CAREER: Multi-scale interactions of air pollution, urban growth, and equity – integrated research methods and informal science teaching. CBET- Environmental Sustainability, National Science Foundation. January 2009 – December 2014.

R Kirby, A Stuart (co-I, lead for air pollution subproject). Environmental Public Health Tracking. Florida Department of Health. November 2011 – June 2014.

J Mihelcic, A Stuart (co-PI), Q Zhang, S Ergas, Y Zhang. S-STEM: Graduate Scholarships to Achieve Sustainable Infrastructure at the Water-Energy-Global Nexus. National Science Foundation. June 2010 – May 2014.

D Mendoza§, AL Stuart (PI as faculty advisor). Quantifying variations in exposure to PM_{10} and NO_x for road construction workers. Pilot Project. National Institute of Occupational Safety and Health Sunshine Education and Research Center, University of South Florida. Jan. – Jun. 2013.

A Stuart (PI), P-S Lin. Air quality impacts of managed lanes. National Center for Transit Research, Florida Department of Transportation. April 2009 – December 2010.

SJ Hendricks, E Hillsman, A Stuart (co-PI). Developing a framework toolkit for carbon footprint that integrates transit. National Center for Transit Research, Florida Department of Transportation. February 2009 – September 2010.

AL Stuart (PI), M Trotz, F Akiwumi. Understanding and promoting sustainability related to mercury exposures through integrated research, graduate education, and community involvement. Sustainable Healthy Communities Initiative, Univ. of South Florida. May 2007 – May 2009.

A Stuart (PI). Tampa Bay Toxics Assessment. Florida Department of Environmental Protection. July 2006 – June 2007.

AL Stuart (PI). A preliminary study of mercury deposition to Tampa Bay. New Researcher Grant, University of South Florida. 2006 – 2007.

AL Stuart (Lead), E Oches, D Yeh. Support of the Environmental Research Interdisciplinary Colloquium. Colleges of Public Health, Engineering, and Arts & Science, Departments of Environmental & Occupational Health, Civil & Environmental Engineering, and Environmental Science & Policy, University of South Florida. September 2005 – May 2006.

J Nielsen-Gammon, A Stuart (co-PI), J Guynes. A rural air quality monitoring tower site in East-Central Texas. Texas Commission on Environmental Quality. September 2004 – August 2005.

J Nielsen-Gammon, A Stuart (co-PI), F Zhang. Meteorological model improvements using the ensemble Kalman filter. Texas Environmental Research Consortium. January 2004 – Nov. 2004.

A Stuart. STAR Graduate Fellowship, US Environmental Protection Agency. 1999-2002.

A Stuart. Graduate Fellowship, National Science Foundation. 1996-1999.

SCHOLARSHIP AND RESEARCH

Refereed Journal Manuscript Publications

MM McAlister, JR Milhelcic, AL Stuart, Q Zhange. Sustaining clean cooking: a system dynamics study of Ghana's rural LPG promotion program. *Energy for Sustainable Development*, 81: 101497. doi: 10.1016/j.esd.2024.101497, 2024.

Z Chen, AL Stuart, Y Guo, Y Zhang, X Li. Distributional equity impacts of automated vehicles: A disaggregated approach. Transportation Research Part C: Emerging Technologies, 167, 104828. doi: 10.1016/j.trc.2024.104828, 2024.

TK Kocak, GOK Kocak, AL Stuart. Polycyclic aromatic hydrocarbons in aquatic media of Turkey: A systematic review of cancer and ecological risks. *Marine Pollution Bulletin*, 188: 114671, doi: 10.1016/j.marpolbul.2023.114671, 2023.

R Ramakrishnan, AL Stuart, JL Salemi, H Chen, K O'Rourke, RS Kirby. Maternal exposure to ambient ozone and congenital diaphragmatic hernia: A population-based retrospective cohort study from Florida, 1998–2012. *Atmospheric Environment*, 1092990. doi:10.1016/j.atmosenv.2022.119290, 2022.

KSC Barrett and AL Stuart. Forest effects on the environmental fates of organic pollutants in a tropical watershed. *Science of the Total Environment*, 815: 152577. doi:10.1016/j.scitotenv.2021.152577, 2022.

TK Kocak, S Gurram, RL Bertini, and AL Stuart. Impacts of a metropolitan-scale freeway expansion program on air pollution and equity. *Journal of Transport & Health*, 22: 101114. doi:10.1016/j.jth.2021.101114, 2021.

P Leandro-Reguillo and AL Stuart. Healthy urban environmental features for poverty resilience: the case of Detroit, USA. *International Journal of Environmental Research and Public Health,* 18: 6982. doi:10.3390/ijerph18136982, 2021.

Y Guo, Z Chen, AL Stuart, X Li, Y Zhang. A systematic overview of transportation equity in terms of accessibility, traffic emissions, and safety outcomes: From conventional to emerging technologies. *Transportation Research Interdisciplinary Perspectives,* 4: 100091, doi: 10.1016/j.trip.2020.100091, 2020.

Z Chen, Y Guo, AL Stuart, Y Zhang, X Li. Exploring the equity performance of bike-sharing systems with disaggregated data: A story of southern Tampa. *Transportation Research Part A,* 130: 529–545, doi: 10.1016/j.tra.2019.09.048, 2019.

R Ramakrishnan, AL Stuart, JL Salemi, H Chen, K O'Rourke, RS Kirby. Maternal exposure to ambient cadmium levels, effect modification by maternal smoking during pregnancy, and congenital diaphragmatic hernia. *Birth Defects Research*, 111: 1399–1407, doi: 10.1002/bdr2.1555, 2019.

KSC Barrett, FM Jaward, AL Stuart. Forest filter effect for polybrominated diphenyl ethers in a tropical watershed. *Journal of Environmental Management*, 248:109279. doi:10.1016/j.jenvman.2019. 109279, 2019.

X Yu, A Stuart, Y Liu, C Ivey, A Russell, H Kan, L Henneman, S Sarnat, S Hasan, AHM Sadmani, X Yang, H Yu. On the accuracy and potential of Google Maps location history data to characterize individual mobility for air pollution health studies. *Environmental Pollution*, 252: 924–930, doi: 10.1016/j.envpol.2019.05.081, 2019.

S Gurram, AL Stuart, and AR Pinjari. Agent-based modeling to estimate exposures to urban air pollution from transportation: exposure disparities and impacts of high-resolution data. *Computers, Environment and Urban Systems*. 75: 22 –34. doi: 10.1016/j.compenvurbsys.2019.01.002, 2019.

R Ramakrishnan, JL Salemi, AL Stuart, H Chen, K O'Rourke, RS Kirby. Trends, correlates, and survival of infants with congenital diaphragmatic hernia and its subtypes. *Birth Defects Research*, 110: 1107–1117. doi: 10.1002/bdr2.1357, 2018.

H Yu, and AL Stuart. Impacts of compact growth and electric vehicles on future air quality and urban exposures may be mixed. *Science of the Total Environment*, 576: 148 – 158, doi:10.1016/j.scitotenv.2016.10.079, 2017.

JP Tanner, JL Salemi, AL Stuart, H Yu, MM Jordan, C DuClos, P Cavicchia, JA Correia, SM Watkins, and RS Kirby. Uncertainty in maternal exposures to ambient $PM_{2.5}$ and benzene during pregnancy: Sensitivity to exposure estimation decisions. *Spatial and Spatio-temporal Epidemiology* 17: 117 -129, doi:10.1016/j.sste.2016.04.009, 2016.

H Yu, and AL Stuart. Exposure and inequality for select urban air pollutants in the Tampa Bay area. *Science of the Total Environment* 551-552 (May): 474–83, doi:10.1016/j.scitotenv.2016.01.157, 2016.

R Michael, AL Stuart, MA Trotz, and F Akiwumi. Source apportionment of wet-deposited atmospheric mercury in Tampa, Florida. *Atmospheric Research* 170 (March): 168–75, doi:10.1016/j.atmosres.2015.11.017, 2016.

N Good, A Mölter, C Ackerson, A Bachand, T Carpenter, ML Clark, KM Fedak, A Kayne, K Koehler, B Moore, C L'Orange, C Quinn, V Ugave, AL Stuart, JL Peel and J Volckens. The Fort Collins Commuter Study: Impact of Route Type and Transport Mode on Personal Exposure to Multiple Air Pollutants. *Journal of Exposure Science and Environmental Epidemiology*, 26: 397 - 404, doi:10.1038/jes.2015.68, 2016.

M Dirgawati, R Barnes, AJ Wheeler, A Arnold, KA McCaul, AL Stuart, D Blake, A Hinwood, BB Yeap, and JS Heyworth. Development of Land Use Regression Models for Predicting Exposure to NO2 and NOx in Metropolitan Perth, Western Australia. *Environmental Modelling & Software* 74 (December): 258–67, doi:10.1016/j.envsoft.2015.07.008, 2015.

JP Tanner, JL Salemi, AL Stuart, H Yu, MM Jordan, C DuClos, P Cavicchia, JA Correia, SM Watkins, and RS Kirby. Associations Between Exposure to Ambient Benzene and $PM_{2.5}$ During Pregnancy and the Risk of Selected Birth Defects in Offspring. *Environmental Research* 142 (October): 345–53, doi:10.1016/j.envres.2015.07.006, 2015.

S Gurram, AL Stuart, AJ Pinjari. Impacts of travel activity and urbanicity on exposures to ambient oxides of nitrogen and on exposure disparities. *Air Quality, Atmosphere & Health* 8: 97–114, doi: 10.1007/s11869-014-0275-6, 2015.

S Fridh and AL Stuart. Spatial variation in ambient benzene concentration over a city park. *Journal of Environmental Health*, Jan-Feb, 76(6): 86-91, 2014.

H Yu, AL Stuart. Spatiotemporal distributions of ambient oxides of nitrogen, with implications for exposure inequality and urban design. *J. Air & Waste Management Assoc.*, 63(8): 943-55, doi:10.1080/10962247.2013.800168, 2013.

AE Evans and AL Stuart. A passive sampling study of small-scale variations in ambient acetaldehyde and formaldehyde concentrations. *Air, Soil, and Water Research*, 4: 71-79, doi: 10.4137/ASWR.S7582, 2011.

AL Stuart and M Zeager. An inequality study of ambient nitrogen dioxide and traffic levels near elementary schools in the Tampa area. *Journal of Environmental Management*, 92:1923-1930, doi:10.1016/j.jenvman.2011.03.003, 2011.

JH Howard, MATrotz, KD Thomas, E Omisca, HT Chiu, T Halfide, F Akiwumi, R Michael, AL Stuart. Total mercury loadings in sediment from gold mining and conservation areas in Guyana. *Environmental Monitoring and Assessment*, 179:555-573, doi: 10.1007/s10661-010-1762-3, 2011.

AL Stuart, S Mudhasakul, W Sriwatanapongse. The social distribution of neighborhood-scale air pollution and monitoring protection. *J. Air & Waste Management Assoc.,* 9:591-602, doi:10.3155/1047-3289.59.5.591, 2009.

R Michael and AL Stuart. The fate of volatile chemicals during wet growth of a hailstone. *Environmental Research Letters*, 4, 015001, doi:10.10188/1748-9326/4/1/015001, 2009.

AL Stuart, A Aksoy, F Zhang, and JW Nielsen-Gammon. Ensemble-based data assimilation and targeted observation of a chemical tracer in a sea breeze model. *Atmospheric Environment*, 41: 3082 – 3094, doi:10.1016/j.atmosenv.2006.11.046, 2007.

MC Barth, W-W Kim, WC Skamarock, AL Stuart, KE Pickering, LE Ott. Simulations of the redistribution of formaldehyde, formic acid, and peroxides in the 10 July, 1996 Stratospheric-Tropospheric Experiment: Radiation, Aerosols, and Ozone deep convection storm, *Journal of Geophysical Research*, 112*,* D13310, doi:10.1029/2006JD008046*,* 2007.

F Zhang, N Bei, JW Nielsen-Gammon, G Li, R Zhang, A Stuart, and A Aksoy. Impacts of meteorological uncertainties on ozone pollution predictability estimated through meteorological and photochemical ensemble forecasts. *Journal of Geophysical Research*, 112, D04304, doi:10.1029/2006JD007429, 2007.

AL Stuart and MZ Jacobson. A numerical model of chemical partitioning during cloud drop freezing. *Journal of Atmospheric Chemistry*, 53: 13-42, doi:10.1007/s10874-006-0948-0, 2006.

AL Stuart and D Wilkening. Degradation of biological weapons agents in the environment: Implications for terrorism response. *Environmental Science & Technology*, 38(8): 2736-2743, doi:10.1021/es048705e, 2005.

AL Stuart and MZ Jacobson. Chemical retention during dry growth riming. *Journal of Geophysical Research*, 109, D07305, doi:10.1029/2003JD004197, 2004.

AL Stuart and MZ Jacobson. A timescale investigation of volatile chemical retention during hydrometeor freezing: Nonrime freezing and dry growth riming without spreading. *Journal of Geophysical Research*, 108(D6), 4178, doi:10.1029/2001JD001408, 2003.

MC Barth, AL Stuart, and WC Skamarock. Numerical simulations of the July 10 Stratospheric-Tropospheric Experiment: Radiation, Aerosols, and Ozone (STERAO) - Deep Convection experiment storm: Redistribution of soluble tracers. *Journal of Geophysical Research*, 106(D12): 12,381-12,400, doi: 10.1029/2001JD9001392001, 2001.

Refereed Conference Proceedings Manuscript Publications

§Postdoctoral scholar; ‡graduate student; †undergraduate student

S Gurram, V Sivaraman, AL Stuart, J Apple. An assessment of population exposure to NOx using GPS data: A case study for Tampa, FL. *Air and Odor Management Conference and Technology Showcase*, Toronto, Canada. Sept. 19–20, doi: 10.13140/RG.2.2.20815.64163, 2019.

R Michael§, AL Stuart, G Dagne. Predicting impacts of commute mode and route on exposures to traffic-related air pollution. Extended Abstract #23. *TRB Summer Conference on Transportation and Air Quality,* Minneapolis, MN. August 4-5, 2016.

S Gurram‡, AL Stuart, AR Pinjari. Impacts of estimated travel activity on air pollution concentrations and human exposures in the Tampa region. Extended Abstract #32. *TRB Summer Conference on Transportation and Air Quality,* Minneapolis, MN. August 4-5, 2016.

R Michael§, AL Stuart, G Dagne, J Volckens, and J Peel. An integrative modeling approach for predicting exposures to traffic pollution during commuting. Extended Abstract #511. *Proceedings of the 108th Air and Waste Management Assoc. Annual Conf. and Exhibition*, Raleigh, NC. June 2015.

R Michael‡§, AL Stuart, MA Trotz, and F Akiwumi. Mercury deposition to the Tampa Bay area: Source influences from the 2012 USF deposition experiment. Extended Abstract #497. *Proceedings of the 108th Air and Waste Management Association Annual Conference and Exhibition*, Raleigh, NC. June 2015.

S Gurram‡, AL Stuart, and AR Pinjari. Estimating human exposures to traffic-related pollution using an integrated transportation and air pollution modeling framework: application to the Tampa region. Extended Abstract #308. *Proceedings of the 108th Air and Waste Management Association Annual Conference and Exhibition*, Raleigh, NC. June 2015.

SC Fridh‡ and AL Stuart. A Spatial Investigation of Highly-Resolved Environmental Benzene Concentrations Using Passive Sampling. *Proceedings of the 104th Air and Waste Management Association Annual Conference and Exhibition*. Orlando, FL. June 2011.

H Yu‡, and AL Stuart. The Spatial Distribution of Nitrogen Oxides in Hillsborough County, FL with Implications for the Social Distribution of Exposures. *Proceedings of the 104th Air and Waste Management Association Annual Conference and Exhibition*. Orlando, FL. June 2011.

R Michael‡, AL Stuart, MA Trotz, F. Akiwumi. Atmospheric mercury deposition and source attribution for Tampa. *Proceedings of the 104th Air and Waste Management Association Annual Conference and Exhibition*. Orlando, FL. June 2011.

AL Stuart, M Zeager‡, N Poor, S Mudhasakul‡, W Sriwatanapongse. Assessing environmental equity related to local air pollution in Tampa, FL. *Proceedings of the 101st Air & Waste Management Association (A&WMA) Annual Conference and Exhibition*. Portland, OR. June 2008.

AL Stuart and MZ Jacobson. Drop-scale numerical modeling of chemical partitioning during cloud hydrometeor freezing. *Proceedings of the 14th International Conf. on Clouds and Precipitation. International Association of Meteorology and Atmospheric Sciences*, 475-478, July 2004.

AL Stuart, MC Barth, WC Skamarock, and MZ Jacobson. Three-dimensional modeling study of the effects of solid-phase hydrometeor-chemical interaction in cumulonimbus clouds on tropospheric chemical distributions. *Proceedings of the 13th International Conference on Clouds and Precipitation. International Association of Meteorology and Atmospheric Sciences*. pp. 932-935. August 2000.

MC Barth, AL Stuart, and WC Skamarock. The influence of cloud processes on the distribution of chemical species for the 10 July 1996 STERAO/Deep Convection storm. *Proceedings of the 13th International Conference on Clouds and Precipitation.* International Association of Meteorology and Atmospheric Sciences. pp. 960-963. August 2000.

AL Stuart, S Jain, and SB Libicki. The use of long-term meteorological information to predict impact probabilities resulting from toxic chemical releases. *Proceedings of the International Topical Meeting of Probabilistic Safety Assessment, American Nuclear Society*. Park City, UT. October, 1996.

S Hayes, A Stuart, S Pye, L Levin, and J Killus. Assessing exposure to airborne particulate matter. *Proceedings of the 89th Annual Meeting of the Air and Waste Management Association.* June 1996.

Book and Book Chapter Publications

§Postdoctoral scholar; ‡graduate student; †undergraduate student

S Gurram‡, AL Stuart, and AR Pinjari. Tampa, Florida: High resolution simulation of urban travel and network performance for estimating mobile source emissions, in *The Multi-Agent Transport Simulation MATSim.* Eds.: A Horni, K Nagel, and KW Axhausen. London: Ubiquity Press. http://dx.doi.org/10.5334/baw, 2016.

JR Mihelcic and AL Stuart. Air Quality Engineering, in *Environmental Engineering: Fundamentals, Sustainability, Design*. 2nd Ed. Wiley. 2014.

AL Stuart. Volatile chemical partitioning during cloud hydrometeor freezing and its effects on tropospheric chemical distributions. Ph.D. Dissertation, Stanford University. Stanford, California. September 2002.

Technical Reports (selected)

§Postdoctoral scholar; ‡graduate student; †undergraduate student

Y Luo‡, S Nice, and AL Stuart. Progress on the pilot low-cost air quality monitoring network. Final Report to the Transportation Planning Organization. 2023. [Available at https://planhillsborough.org/wp-content/uploads/2024/01/Low-Cost-Air-Quality-Monitoring-Pilot-Study-Y2_FinalReport_2022-2023.pdf]

Y Luo‡, S Nice†, G Saliceto‡, AL Stuart. Low-cost monitoring to reduce traffic-related air pollution exposure and inequality, a pilot study. Final Report for the Transportation Planning Organization of Hillsborough County. 2022. [Available at https://planhillsborough.org/wp-content/uploads/2023/04/Low-Cost-Air-Quality-Monitoring-Pilot-Study-USF-Final-Report-04062023.pdf]

Z Chen§, X Li, D Ory, AL Stuart, A Kulshrestha, Y Guo‡, Y Zhang. Automated vehicle access, mobility, affordability for systems users. Final Report to the Federal Highway Administration. 2021.

T Kocak‡, N Menon§, S Gurram, RL Bertini, and AL Stuart. Air Pollution and Equity Impacts of the Proposed Tampa Bay Next Program from a Health in all Policies Perspective. Final Report for the Center for Transportation, Environment, and Community Health (CTECH). June 2020. [Available at http://ctech.cee.cornell.edu/final-project-reports/]

Y Guo‡, Z Chen‡, A Stuart, X Li, and Y Zhang. Equity Assessment for Emerging Transportation Technologies: A Comprehensive Literature Review and Case Study. Final Report for the Center for Transportation, Environment, and Community Health (CTECH). October 2018. [Available at http://ctech.cee.cornell.edu/final-project-reports/]

S Gurram‡ and AL Stuart. Impacts of Transit-Oriented Compact-Growth on Air Pollutant Concentrations and Exposures in the Tampa Region. Final Report for the Center for Transportation, Environment, and Community Health (CTECH). March 2018. [Available at https://ecommons.cornell.edu/handle/ 1813/56566]

AL Stuart, P-S Lin, C Lee, H Yu‡, and H Chen. Assessing Air Quality Impacts of Managed Lanes. Final Report for the State of Florida Department of Transportation. BDK85 TWO #977-11. December 2010. [Available at http://www.nctr.usf.edu/pdf/6402-1041-00.pdf]

SJ Hendricks, E Hillsman, A Foster, A Yassin‡, and A Stuart. Developing a Framework for a Toolkit for Carbon Footprint that Integrates Transit (C-FIT). Final Report for the State of Florida Department of Transportation, 2010.

A Stuart and P Borisuth‡. Preliminary study of mercury deposition to the Tampa Bay: Task 1 Annual report. For the Florida Department of Environmental Protection. Project AQ200. June 12, 2007.

JP Pancras§ and AL Stuart. Laboratory and Field Support of the SEAS Measurements (2006-2007): Task 2 Annual Report. For the Florida Department of Environmental Protection. Project AQ200. June 12, 2007.

A Stuart and F Zhang, J Nielsen-Gammon, and A Aksoy. Meteorological model improvements using the ensemble Kalman filter: Progress report. For the Texas Environmental Research Consortium. Project H24-2003. August 30, 2004.

J Neilsen-Gammon, A Aksoy, and A Stuart. Status report for GTRI/HARC Project No. H24-2004 C2. For the Texas Environmental Research Consortium. Project H24-2003. July 8, 2004.

C Chyba, MF Cuellar, L Donohue, L Eden, M Lynn, M May, E Pate-Cornell, J Pullen, T Putnam, M Race, and A Stuart. Final Report: Top Officials 2 Full Scale Exercise. Center for International Security and Cooperation, Stanford University. June 2003.

T Crites, T Putnam, F Steinhausler, and A Stuart. Report of the delegation from the Center for International Security and Cooperation (CISAC): TOPOFF-2 Planning Meeting for RDD Attack. Stanford University. October 2002.

Scholarly Society Conference Abstracts and Presentations (selected)

§Postdoctoral scholar; ‡graduate student; †undergraduate student

Z Chen, A Stuart, Y Guo, Y Zhang, X Li. A Disaggregated Approach for Evaluating Distributional Equity Impacts of Automated Vehicles. TRB Annual Meeting. Washington, D.C. 9 January 2024.

Y Luo‡, S Nice†, G Saliceto‡, A Yeh, L Ehrreich, JW Beckstead, D Martinez Tyson, AL Stuart. A collaborative partnership and community-based low-cost air monitoring to reduce disparities in traffic-related air pollution. International Society for Exposure Science 2023 Annual Meeting, Chicago, IL. 28 August 2023.

A Yeh, L Ehrreich, A Stuart, J Water, N Young. Community air monitoring in disadvantaged communities near interstates in Hillsborough County. American Planning Association. Florida Planning Conference. 7 Sept. 2023.

Y Luo‡, S Nice†, A Yeh, L Ehrreich, JW Beckstead, D Martinez Tyson, AL Stuart. Development of community-based low-cost monitoring to reduce traffic-related air pollution and improve environmental justice in Tampa, Florida. Air & Waste Management Association. Annual Conference and Exhibition. 6 June 2023.

G Saliceto‡, Y Luo‡, S Nice†, P. Maciejczyk, J Troutt, AL Stuart. Community-based assessment of air pollution in Childs Park, FL: An exploratory study to investigate persistent odors. Air & Waste Management Association. Annual Conference and Exhibition. 6 June 2023.

K Barrett, A Stuart. Environmental modeling of organic pollutant distribution in Jamaica. Frontiers of Research in Caribbean Science and Technology (FORECAST) Conference, August 10, 2022.

Yonghong Luo‡, Gennaro Saliceto‡, Shannah Nice†, Amy L. Stuart. Use of low-cost monitors with citizen science and community participation to improve environmental justice in urban decision-making: traffic-related air pollution in marginalized neighborhoods of the Tampa Bay area. 2022 AEESP Research and Education Conference, St. Louis, MO. June 29, 2022.

Fizza Zahid‡, Jeffrey A. Cunningham, Amy L. Stuart. Effect of grain-size distribution on interfacial area-saturation curves in multiphase flow through porous media. AGU Fall Meeting, American Geophysical Union. Dec 1–17, 2020.

Z Chen‡, Y Guo‡, A Stuart, Y Zhang, Z Li. How can disaggregate data facilitate transportation equity analysis? A case of Coast Bike Share system in southern Tampa. ITS World Congress, Los Angeles, CA. October 4–8, 2020.

Elizabeth Eastman, Amy Stuart, Cesunica Ivey, Haofei Yu. iPhone significant location data has potential for characterizing historical individual mobility for exposure assessment. 2020 Annual Meeting, International Society of Exposure Science. Sept 20–24, 2020.

Fizza Zahid‡, Jeffrey A. Cunningham, Amy L. Stuart. Effect of grain-size distribution on the temporal evolution of interfacial area during multi-phase flow through porous media. InterPore2020 Online Conference, International Society for Porous Media. Aug 31–Sept 4, 2020.

Z Chen‡, Y Guo‡, A Stuart, Y Zhang, Z Li. How can disaggregate data facilitate equity analysis? A case of Coast Bike Share system in southern Tampa. Transportation Research Board 2020 Annual Meeting, Washington, DC. January 12–16, 2020.

S. Gurram, V Sivaraman, AL Stuart, J Apple. An assessment of population exposure to NOx using GPS data: A case study for Tampa, FL. Air & Odor Management Conference and Technology Showcase, Toronto, Canada. Sept 19, 2019.

TK Kocak‡, S Gurram, S Doyle‡, N Menon§, RL Bertini, AL Stuart. Air pollution and equity impacts of the Tampa Bay Next transportation program from a Health in All Policies perspective. 2019 AEESP Research and Education Conference, Tempe, AZ. May 15, 2019.

P Leandro‡, A Stuart. Environmental and urban risk factors for poverty increments in U.S.: the case of Detroit. City Health International Conference, Liverpool, UK. March 22, 2019.

T Kocak‡, R Bertini, AL Stuart. Investigating air pollution and equity impacts of a proposed comprehensive transportation program for Tampa. Center for Transportation, Environment and Community Health, Annual Meeting, Davis, CA, November 9, 2018.

S Gurram‡, AL Stuart, AR Pinjari. Impacts of transit-oriented compact-growth on air pollutant concentrations and exposures in the Tampa region. 7th Transportation Research Board Conference on Innovations in Travel Modeling, Atlanta, Georgia, June 26, 2018.

C Haberstroh‡, M Arias, A Stuart. Modelling plastic debris in freshwater systems. 18th Annual American Ecological Engineering Society Meeting, Houston, Texas, June 12-14, 2018.

AL Stuart, S Gurram‡, H Yu§, R Michael§, A. Marroquin†, M. Resto†. Impacts of community design and commute behavior on exposures to traffic-related air pollution. International Society of Exposure Science, 27th Annual Meeting, Research Triangle Park, NC, October 2017.

R Ramakrishnan‡, J Salemi, A Stuart, H Chen, K O'Rourke, R Kirby. The prevalence, correlates, and survival of infants with congenital diaphragmatic hernia in Florida: 1998 – 2012. American College of Epidemiology Annual Meeting, New Orleans. *Annals of Epidemiology 27*: 539, Sept 2017. doi: 10.1016/j.annepidem.2017.07.020

A Stuart. Air quality design for sustainable and healthy urban communities. AEESP Research and Education Conference, Ann Arbor, Michigan, June 2017.

S Gurram‡, A Stuart, A Pinjari. Impacts of Estimated Travel Activity on Air Pollutant Concentrations and Human Exposures in the Tampa Region. Active City Conference on Health, Wellness and Urban Design. Hosted by the American Institute of Architects and USF, Tampa, Florida, January 2017.

A Stuart, R Michael§‡, and H Yu§‡. Simulating the impacts of urban design and active travel on air quality and public health. Active City Conference on Health, Wellness and Urban Design. Hosted by the American Institute of Architects and USF, Tampa, Florida, January 2017.

H Yu§‡ and A Stuart. The impacts of compact growth and urban air quality on public health. Active City Conference on Health, Wellness and Urban Design. Hosted by the American Institute of Architects and USF, Tampa, Florida, January 2017.

S Gurram‡, AL Stuart, AR Pinjari. An integrated transportation and air pollution modeling framework for estimating pollution exposures and inequalities: application to the Tampa region. Florida Section A&WMA 52nd Annual Conference, Tampa, FL. October 2016.

AK Marroquin†, R Michael§, AL Stuart. What is the healthiest way to commute? Using a route generator to compare air pollution commute exposures by route and mode. Florida Section A&WMA 52nd Annual Conference, Tampa, FL. October 2016.

S Gurram‡, AL Stuart, and AR. Pinjari. An integrated transportation and air pollution modeling framework for estimating mobile source emissions and human exposures: Application to the Tampa Region. 14th International Conference on Travel Behaviour Research (IATBR), Windsor, UK. July 2015.

JL Salemi, JP Tanner‡, AL Stuart, H Yu§‡, MM Jordan, C DuClos, P Cavicchi, JA Correia, SM Watkins, RS Kirby. Associations between exposure to ambient benzene and $PM_{2.5}$ during pregnancy and the risk of

selected birth defects in offspring. 55th Annual Meeting, The Teratology Society, Montreal, Canada. June 2015.

JP Tanner‡, JL Salemi, H Yu§‡, MM Jordan, C DuClos, P Cavicchi, JA Correia, SM Watkins, RS Kirby, AL Stuart. Sensitivity of air pollution exposure estimates to exposure assessment decisions: maternal exposures to ambient $PM_{2.5}$ and benzene. 55th Annual Meeting, The Teratology Society, Montreal, Canada. June 2015.

AL Stuart. Improving Estimation of Commuter Air Pollution Exposures using Bayesian Markov Chain Monte Carlo Simulation. 2015 AEESP Research and Education Conference, New Haven, CT. June 2015.

S Gurram‡, AL Stuart, and AR Pinjari. An Integrated Transportation and Air Pollution Modeling Framework for Estimating Mobile Source Emissions and Human Exposures: Application to the Tampa Region. Florida Section Air and Waste Management Association Annual Conference and Exhibition, Jacksonville, FL. October 2014.

H Yu‡§, AL Stuart. Impact of Urban Growth Form and Fleet Electrification on Emissions, Concentrations, and Exposures for Nitrogen Oxides and Select Toxic Volatile Organic Compounds. 2014 AAAR Annual Conference Abstracts. AAAR 33rd Annual Conference, Orlando, FL. October 2014.

DL Mendoza§, AL Stuart, G Dagne, H Yu§‡. Effect of emissions uncertainty and variability on high-resolution concentrations of carbon monoxide, fine particle black carbon, and nitrogen oxides in Fort Collins, Colorado: development of a Bayesian uncertainty modeling and evaluation framework. American Geophysical Union Fall Meeting. San Francisco, CA. December 2013.

J Sears‡ (AL Stuart, advisor). Spatial Distribution of Nitrogen Oxides, Benzene, Toluene, Ethylbenzene, and Xylenes in Hillsborough County, Florida: An Investigation of Impacts of Urban Forests on Ambient Concentrations of Air Pollutants Associated with Traffic. Florida Section Air and Waste Management Association Annual Conference and Exhibition, Tallahassee FL. 2013.

DL Mendoza§, AL Stuart, and G Dagne. Probabilistic modeling and Bayesian updating of concentrations of carbon monoxide and fine particulate black carbon in Fort Collins, Colorado for exposure estimation. AAAR 32nd Annual Conference, Sept 30 - Oct 4, 2013.

S Gurram‡, AL Stuart and AR Pinjari. Assessing exposure to traffic-related air pollutants in the Tampa area using activity-based travel demand modeling. 2013 AEESP 50th Anniversary Conference. July 14-16, 2013.

AL Stuart, D Mendoza§, and G Dagne. Development of a commuter exposure modeling system that integrates air pollution dispersion and path-following activity location in a Bayesian framework. 2013 AEESP 50th Anniversary Conference. July 14-16, 2013.

H Yu‡, AL Stuart. Impact of urban growth patterns on air pollution emissions and human exposures. 2013 AEESP 50th Anniversary Conference. July 14-16, 2013.

DL Mendoza§, AL Stuart, and G Dagne. High-resolution emissions and concentrations of carbon monoxide and fine particle black carbon in Fort Collins, Colorado: development of a Bayesian uncertainty modeling and evaluation framework. Abstract A11F-0110. 2012 Fall Meeting, AGU, San Francisco, CA, 3-7 Dec 2012.

AL Stuart. Engaged learning and youth interest in STEM careers: a science museum exhibit on air pollution and urban sustainability. Abstract ED21A-0695. 2012 Fall Meeting, AGU, San Francisco, CA, 3-7 Dec 2012.

R Michael‡, AL Stuart, M Trotz, F Akiwumi. Source attribution of atmospheric mercury deposition to Tampa using positive matrix factorization. APHA Annual Meeting and Exposition, San Francisco, CA. October 2012.

S Gurram‡, AL Stuart, and AR Pinjari. Characterization of exposures to ambient NOx levels in the Tampa area considering spatiotemporal travel activity data. Air & Waste Management Association Annual Conference & Exposition, San Antonio, TX. June 19-22. 2012.

H Yu‡, AL Stuart. Resolving the intra-urban formaldehyde concentration distribution in the Tampa area. Air & Waste Management Association Annual Conference & Exposition, San Antonio, TX. June 19-22. 2012.

S Fridh‡ and AL Stuart. Spatial variations in ambient benzene concentrations at high resolution. Assoc. of Env. Eng. and Sci. Professors. Education and Research Conference. July 2011.

S Gurram‡, AL Stuart, AR Pinjari. Time-activity patterns and air pollutant exposures using 2009 National Household Travel Survey data. Assoc. of Env. Eng. and Sci. Professors. Education and Research Conference. July 2011.

R Michael‡, AL Stuart, P Borisuth‡, MA Trotz, and F Akiwuma. Source influences on deposited mercury in Tampa. Assoc. of Env. Eng. and Sci. Professors. Education and Research Conference. July 2011.

H Yu‡, AL Stuart, H Chen, PS Lin, C Lee. Impacts of the Miami-Broward I-95 hot lane project on air quality: emission estimation and dispersion modeling using traffic microsimulation data. Assoc. of Env. Eng. and Sci. Professors. Education and Research Conference. July 2011.

AL Stuart, A Evans‡, H Yu‡. Interactions between air pollution, urban design, and environmental equity: a modeling and passive sampling study of intra-urban patterns of traffic-related air pollutants. 138th Annual Meeting of the American Public Health Association, Denver, CO. November 2010.

AE Evans‡ and AL Stuart. An Investigation of Small-scale Spatial Variability in Aldehyde Concentrations through Passive Sampling and Analysis. Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, an International Specialty Conference of AAAR, San Diego, California. March 2010.

AL Stuart, MA Zeager‡, H Yu‡, and A Evans‡. An Investigation of Intra-urban Patterns of Urban Air Pollution, with Implications for Environmental Exposure Equity and Urban Design. Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, an International Specialty Conference of AAAR, San Diego, California. March 2010.

H Yu‡ and AL Stuart. Mobile source emissions estimation and dispersion modeling toward high spatial resolution distributions of nitrogen oxides and select urban air toxics. Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, an International Specialty Conference of AAAR, San Diego, California. March 2010.

A Evans‡ and AL Stuart. Passive sampling for aldehydes in Hillsborough County, Florida. 46th Annual Florida Air and Waste Management Association Conference, October 2009.

H Yu‡ and AL Stuart. Benzene air pollution and environmental equity in the Tampa Area. 46th Annual Florida Air and Waste Management Association Conference. October 2009.

H Yu‡, AL Stuart. Modeling and equity analysis for NOx air pollution in the Tampa Area. Florida Public Health Association 2009 Annual Educational Conference. August 2009.

AL Stuart. Air pollution, equity, and urban growth. Gordon Research Conference on Atmospheric Chemistry, Waterville Valley, New Hampshire. August 2009.

MA Trotz, AL Stuart, and F Akiwumi. Diaspora linkages for building international, interdisciplinary partnerships on sustainability in US graduate education. Association of Environmental Engineering and Science Professors 2009 Conference, Iowa City. July 27, 2009.

MA Zeager‡, AL Stuart. Spatial variation of nitrogen dioxide in Hillsborough County, Florida. Pediatric Academic Societies Annual Meeting, Baltimore, May 2-5, 2009.

TC Halfhide‡, F Akiwumi, M Trotz, A Stuart, J Howard‡, R Michael‡. Mercury perception, community awareness and sustainability implications for the Tampa Bay region, Florida. Proceedings of the Association of American Geographers Annual Meeting. Las Vegas, NV. March 27, 2009.

MA Trotz, JH Howard‡, AL Stuart, F Akiwumi. Mercury sorption to river sediments from the Hillsborough river: Potential impacts from climate change. American Chemical Society 237th National Conference & Exposition, Salt Lake City, UT, March 24, 2009.

JA Howard‡, A Stuart, F Akiwumi, and MA Trotz. Climate change effects on mercury sorption to sediment samples from the Hillsborough river. American Chemical Society 237th National Conference & Exposition, Salt Lake City, UT, March 24, 2009.

AL Stuart, M Trotz, F Akiwumi. An integrated student-centered study of mercury in the economy, society, and environment of the Tampa Bay area. 136th American Public Health Association Annual Meeting, San Diego, CA October 28, 2008.

R Michael‡, AL Stuart, Investigation of the factors influencing volatile chemical fate during steady-state accretion on wet-growing hail. American Geophysical Union (AGU). Eos Trans. AGU, Fall Meet. Suppl. Abstract A53B-1156, Dec. 2007.

R Michael‡, AL Stuart, Investigation of the factors affecting chemical fate during ice accretion in the wet-growth regime. FL A&WMA 44th Annual Conference. October 2007.

AL Stuart. Localized air pollution and environmental equity in Tampa, Florida. 2007 AEESP Research and Education Conference, Blacksburg, Va., July 2007.

AL Stuart, C Braithwaite†, F Breckner‡. Investigation of air quality related health disparities in Tampa, FL, American Public Health Association Annual Meeting, November 2006.

N Poor, S Calderón‡, C Mizak‡, H Strayer‡, A Stuart. An application of NADP precipitation monitoring: diagnostics for local source contributions to wet deposition of gaseous and particulate nitrogen. Effects of Deposition in Urban and Coastal Environments, National Atmospheric Deposition Program (NADP) 29th Annual Technical Meeting, Norfolk, VA, October 25, 2006.

D Martin‡ and AL Stuart. Aerosolized microorganisms: survivability, infectivity detection and modeling: A literature review. FL A&WMA 43rd Annual Conference, October 2006.

AL Stuart, A Aksoy, JW Nielsen-Gammon, F Zhang. Ensemble Kalman filter data assimilation for improved chemical tracer forecasts in a 2-D sea breeze model. The 86th American Meteorological Society Annual Meeting, January 2006.

AL Stuart, A Aksoy, F Zhang, JW Nielsen-Gammon. Data assimilation and targeted observation of chemical tracer concentrations in a sea breeze model forecast using an ensemble Kalman filter. Eos Trans. AGU, 86(52), Fall Meet. Suppl. Abstract A33F-04, December 2005.

FB Breckner‡ and AL Stuart, Health implications of diesel vehicle emissions in Jakarta. FL A&WMA 42nd Annual Conference, November 2005.

AL Stuart and MZ Jacobson, 2004, Volatile chemical retention during wet-growth riming. Eos. Trans. AGU. Fall Meet. Suppl., December 2004.

AL Stuart and MZ Jacobson. Volatile chemical retention during wet-growth riming. 8th Scientific Conference of the International Global Atmospheric Chemistry Project (IGAC), 2004.

JW Nielsen-Gammon, R Orville, LD Carey, D.R. Collins, A. Stuart, R. Zhang. Invitation to participate in the Houston Environmental Aerosol Thunderstorm Project (HEAT). 5th Symposium on the Urban Environment, American Meteorological Society Annual Meeting, January 2004.

AL Stuart, and M.Z. Jacobson. A theoretical and modeling study of volatile chemical partitioning during cloud hydrometeor freezing. Eos. Trans. AGU, 84(46). Fall Meet. Suppl., Abstract A12F-04. 2003.

AL Stuart, MC Barth, WC Skamarock, and MZ Jacobson. Interactions between chemicals and ice-containing convective cloud hydrometeors and their effects on tropospheric chemical distributions. U.S. EPA STAR Fellowship Conference, Washington D.C. August 2001.

AL Stuart, M.Z. Jacobson, M.C. Barth, and W.C. Skamarock. Chemical transfer to ice-containing cumulonimbus cloud hydrometeors and its effects on tropospheric chemical distributions. The Millennium Symposium on Atmospheric Chemistry, American Meteorological Society Annual Meeting, January 2001.

AL Stuart, MC Barth, WC Skamarock, and MZ Jacobson. Effects of solid-phase cloud hydrometeors in convective clouds on chemical distributions and deposition. U.S. EPA STAR Fellowship Conference, Washington D.C. July 2000.

AL Stuart, MC Barth, WC Skamarock, and MZ Jacobson. Solid microphysics and chemistry interactions in thunderstorm simulation using a three-dimensional cloud model. Eos Suppl., Transactions. American Geophysical Union Fall Meeting, Dec. 1998.

AL Stuart and MZ Jacobson. Studying the relative effects on model predictions using reduced versus expanded stratospheric ozone chemical mechanisms. Eos Supplement, Transactions. American Geophysical Union Fall Meeting, Dec. 1997.

University Conference Abstracts and Presentations (selected)

§Postdoctoral scholar; ‡graduate student; †undergraduate student

M. Mormino† (A. Stuart faculty supervisor). Developing a trailer collocation plan for calibration of a community-based air quality sensor network. 2024 Summer Undergraduate Research Symposium, University of South Florida, July 25, 2024.

Y Luo‡, L Baker, J Waters, JW Beckstead, D Martinez Tyson, and AL Stuart. A collaborative sensor-based air monitoring network to address inequality in exposure to traffic-related air pollution. Air Quality Workshop. University of Florida. 4 April 2024.

G Saliceto‡, P. Maciejczyk, J Beckstead, L Calcul, and AL Stuart. Assessment of air pollution in Childs Park, FL: a community-based study to investigate persistent odors. USF Health Research Day. 1 March 2024.

Y Luo‡, S Nice†, A Yeh, L Ehrreich, JW Beckstead, D Martinez Tyson, and AL Stuart. Development of Community-Based Low-Cost Monitoring to Reduce Traffic-Related Air Pollution and Improve Environmental Justice in Tampa, Florida. UF Air Quality Workshop, University of Florida, 6 April 2023.

G Saliceto‡ and AL Stuart. Community-based assessment of air pollution in Childs Park, FL: an exploratory study to investigate persistent odors. UF Air Quality Workshop, University of Florida, 6 April 2023.

Shannah Nice†, Yonghong Luo‡, Gennaro Saliceto‡, Amy Stuart. The use of low-cost air quality sensors for community empowerment in vulnerable Tampa Bay communities. Undergraduate Research Conference, University of South Florida, April 1, 2022.

Yonghong Lou‡, Gennaro Saliceto‡, Amy Stuart, Low-cost monitors and citizen science to reduce inequality in exposures to traffic-related air pollution, Air Quality Workshop, University of Florida, March 31, 2022.

Gennaro Saliceto‡, Amy Stuart. Exploring air pollutant levels at bus transfer stations using a low-cost portable monitor. Air Quality Workshop, University of Florida, March 31, 2022.

Yonghong Lou‡, Gennaro Saliceto‡, Amy Stuart, Studying the use of low-cost monitors and citizen science to reduce inequality in exposures to traffic-related air pollution and to empower marginalized communities. USF Health Research Day, University of South Florida, February 25, 2022.

Gennaro Saliceto‡, Amy Stuart. Exploring air pollutant levels at bus transfer stations using a low-cost portable monitor. USF Health Research Day, University of South Florida, February 25, 2022.

Chitralekha Chakraborty‡ and Amy L. Stuart. A review and pilot analysis of satellite data for air pollution exposure estimation. USF Graduate Student Research Symposium. April 9, 2021.

Yonghong Luo‡ and Amy L. Stuart. Potential of citizen science with low-cost sensors to reduce air pollution exposure inequality. USF Graduate Student Research Symposium. April 9, 2021.

Nisha Vijayakumar‡, Naya Martin‡, Laurent Calcul, Thomas J Mason, Marie Bourgeois, Amy Stuart. Quantification of Pesticides and Polycyclic Aromatic Hydrocarbons in Breast Milk. USF Health Research Day. February 26, 2021.

TK Kocak‡, AL Stuart. Air pollution and equity impacts of the Tampa Bay Next transportation improvement program from a Health in All Policies perspective. 2019 Air Quality Workshop, Gainesville, FL. March 25, 2019.

T Kocak‡, N Menon§, S Doyle‡, R Bertini, A Stuart. Air Pollution and Equity Impacts of the Tampa Bay Next Transportation Improvement Program for Tampa. USF Health Research Day, University of South Florida, February 22, 2019.

F Ebrahimi‡, T Kocak‡, A Stuart, J Cunningham. Exploration of data assimilation and satellite data for air pollution and groundwater modeling. 2017-18 AEESP Distinguished Lecture & Poster Session, University of Central Florida, March 23, 2018.

TK Kocak‡ and A Stuart. Air quality and equity impacts of the planned Tampa Bay Next express lane road expansion. 6th Air Quality Workshop, University of Florida, March 19, 2018.

Y Abdullah‡, A Stuart, S Landry, R Pu, and Z Atlas. Study on the relationships between heavy metal air pollution, vegetation cover, and environmental justice in Tampa using Spanish moss as a bio-indicator. 6th Air Quality Workshop, University of Florida, March 19, 2018.

F Ebrahimi‡, T Kocak‡, A Stuart, J Cunningham. Exploration of data assimilation and satellite data for air pollution and groundwater modeling. 6th Air Quality Workshop, University of Florida, March 19, 2018.

J Donegan‡, A Stuart, J Mihelcic, J Corvin. Appropriateness of Improved Cookstoves – Health Impacts in Panama. 5th Air Quality Workshop, University of Florida, March 2017.

S Gurram‡, AL Stuart, AR Pinjari. Impacts of transit-oriented compact-growth on air pollutant concentrations and exposures in the Tampa region. 5th Air Quality Workshop, University of Florida, March 2017.

R Ramakrishnan‡, A Stuart, R Kirby, J Salemi, H Chen, K O'Rourke. Ambient cadmium as a risk factor for congenital diaphragmatic hernia. 5th Air Quality Worshop, University of Florida, March 2017.

AK Marroquin†, R Michael§, AL Stuart. What is the healthiest way to commute? Using a route generator to compare air pollution commute exposures by route and mode. 2016-17 AEESP Distinguished Lecture & Poster Session, University of Florida. September 2016.

K Marroquin†, R Michael§, AL Stuart. What is the healthiest way to commute? Using a route generator to compare commuter exposures to air pollution. Undergraduate Research and Arts Colloquium, University of South Florida. April 6, 2016.

M Resto†, R Michael§, and AL Stuart. Incorporating exposure factors into a commuter exposure modeling system. Undergraduate Research and Arts Colloquium, University of South Florida. April 6, 2016.

K Marroquin†, R Michael§, AL Stuart. Estimating commuter exposure to ambient air pollution using route generators. Health Research Day, University of South Florida. February 19, 2016.

AL Stuart, R Michael§, and G Dagne. Estimating impacts of commute route, mode, and time of day on exposures to traffic-related air pollutants: The Fort Collins Commuter Exposure Study. Air Quality Workshop, University of Florida. November 9, 2015. (Invited oral presentation)

R Michael§, AL Stuart, MA Trotz, F Akiwumi. Mercury deposition to the Tampa Bay area: Source influences from the 2012 USF deposition study. Air Quality Workshop, University of Florida. November 9, 2015.

S Gurram‡, AL Stuart, AR Pinjari. An Integrated Transportation and Air Pollution Modeling 6 Framework for Estimating Mobile Source Emissions and Human Exposures: Application to the Tampa Region. Air Quality Workshop, University of Florida. November 9, 2015.

M Resto†, R Michael§, AL Stuart. Incorporating exposure factors into a commuter exposure estimation modeling system. Air Quality Workshop, University of Florida. November 9, 2015.

AK Marroquin†, R Michael§, AL Stuart. Predicting commuter exposure to ambient carbon monoxide using a route generator. Air Quality Workshop, University of Florida. November 9, 2015.

S Gurram‡, AL Stuart, AR Pinjari. An Integrated Transportation and Air Pollution Modeling 6 Framework for Estimating Mobile Source Emissions and Human Exposures: Application to the Tampa Region. 8th Annual College of Engineering Research Day, University of South Florida. November 5, 2015.

M Resto†, R Michael§, AL Stuart. Incorporating exposure factors into a commuter exposure estimation modeling system. 8th Annual College of Engineering Research Day, University of South Florida. November 5, 2015.

K Marroquin†, R Michael§, AL Stuart. Estimating commuter exposure to ambient carbon monoxide using route generators. 8th Annual College of Engineering Research Day, University of South Florida. November 5, 2015.

SD Slinn†, S Gurram‡, R Michael§, AL Stuart. Improving the Efficiency of Urban Air Pollution Dispersion Modeling. 8th Annual College of Engineering Research Day, University of South Florida. November 5, 2015.

R Michael‡ and AL Stuart, Source attribution of atmospheric mercury deposition to Tampa using positive matrix factorization. Graduate School Research Symposium, University of South Florida. March 2012.

R Michael‡, AL Stuart, MA Trotz, and F Akiwumi, Source attribution of atmospheric mercury deposition to Tampa using positive matrix factorization. 22nd Annual Health Research Day, University of South Florida. February, 2012.

S Mehra‡, H Yu‡, TJ Mason, AL Stuart, D Santiago‡, A Mullen‡. Local health impact assessment method for formaldehyde. 22nd Annual Health Research Day, University of South Florida. February 24, 2012.

S Gurram‡, AL Stuart, AR Pinjari. Characterization of exposures to ambient NOx Levels in the Tampa area considering spatiotemporal travel activity data. College of Engineering Research Day, University of South Florida. November 17, 2011.

S Fridh‡ and AL Stuart. A spatial investigation of highly resolved ambient benzene concentrations using passive sampling. 21th Annual Health Research Day, University of South Florida. 2011.

R Michael‡, AL Stuart, P Borisuth‡, MA Trotz, and F Akiwumi. Atmospheric mercury deposition and source attribution for Tampa. 21th Annual Health Research Day, University of South Florida. 2011.

H Yu‡ and AL Stuart. Modeling of residential exposures to nitrogen oxides among different population groups in Hillsborough County. 21th Annual Health Research Day, University of South Florida. 2011.

R Michael‡ and AL Stuart. Modeling the environmental, economic, and socio-cultural dynamics of mercury. 20th Annual Health Research Day, University of South Florida. February 19, 2010.

AM Evans‡ and A.L. Stuart. An investigation of small-scale variability in aldehyde concentrations through passive sampling and analysis. 20th Annual USF Health Research Day, University of South Florida. February 19, 2010.

H Yu‡ and AL Stuart. Air pollutant dispersion modeling and analysis of equity impacts in the Tampa area. 20th Annual USF Health Research Day, University of South Florida. February 19, 2010.

A Evans‡ and AL Stuart. Passive sampling for aldehydes in Hillsborough County, Florida. Abstract. 2nd Going Green Tampa Bay Expo, University of South Florida. October 2009.

H Yu‡ and AL Stuart. Benzene Air Pollution and Environmental Equity in the Tampa Area. Abstract. 2nd Going Green Tampa Bay Expo, University of South Florida. October 2009.

A Tapper† (and A.L. Stuart, advisor). Mercury from Dental Amalgams: Routes of Exposure and Methods of Reduction. Thesis Day, Honors College, University of South Florida. April 24, 2009.

H Yu‡, W Traisantikul‡. A.L. Stuart. Modeling and Equity Analysis for Benzene Air Pollution in Tampa Area. Emerging Paradigms Conference, University of South Florida. April, 2009.

C Einmo‡, AL Stuart. The Role of Domestic Combustion Emissions in Urban Air Quality. Emerging Paradigms Conference, University of South Florida. April 2009.

A Tapper†, AL Stuart. Mercury from Dental Amalgams: Routes of Exposure and Methods of Reduction. Undergraduate Research Symposium, University of South Florida. April 3, 2009.

H Yu‡, AL Stuart. Modeling of NOx Air Pollution in Tampa Area. National Public Health Week Research and Practice Poster Session, University of South Florida. March, 2009.

A Evans‡, S Mehra‡, AL Stuart, T Mason. Asthma and Air Pollution: Past and Future Research. College of Public Health, National Public Health Week Research and Practice Poster Session, University of South Florida. March, 2009.

C Einmo‡, AL Stuart. The Role of Domestic Combustion Emissions in Urban Air Quality. Health Research Day, University of South Florida. March 2009.

C Einmo‡, AL Stuart. Community-scale Modeling of Domestic Biomass Burning Emissions. College of Engineering Research Week, University of South Florida. November 2008.

T Halfhide‡, J Howard‡, R Michael‡, C Einmo‡, D Dey‡, M Trotz, F Akiwumi, and AL Stuart. Understanding mercury in Hillsborough River, Florida, using Sustainability Concepts. Going Green Expo, University of South Florida. April, 2008.

M Zeager‡, AL Stuart. Nitrogen Dioxide Measurements in Neighborhoods in Hillsborough County. Health Research Day, University of South Florida. February, 2008.

R Michael‡, AL Stuart, J Howard‡, M Trotz, N Caesar‡, F Akiwumi. Modeling of the environmental, economic, and socio-cultural dynamics of mercury. Health Research Day, University of South Florida. February, 2008.

R Michael‡, AL Stuart, J Howard‡, M Trotz, N Caesar‡, F Akiwumi. Modeling of the environmental, economic, and socio-cultural dynamics of mercury. Graduate Multidisciplinary Scholars Symposium, University of South Florida. November, 2007.

J Howard‡, AL Stuart, N Caesar‡, F Akiwumi M. Trotz. The Examination of Anthropogenic Mercury Contamination to Sediments in Tampa Bay, FL (USA) and Arakaka-Matthew's Ridge, Guyana. Graduate Multidisciplinary Scholars Symposium, University of South Florida. November, 2007.

R Michael‡, A.L. Stuart, Chemical fate during hail growth. Engineering Scholarship Day, University of South Florida. April, 2007.

P Borisuth‡, W Sriwatanapongse, and AL Stuart. Mercury atmospheric deposition study for Tampa Bay. Student Poster Session, AEESP Distinguished Lecture, University of Central Florida. March 2007.

S Mudhasakul‡, W Sriwatanapongse, and AL Stuart. Localized air quality and population disparities in Tampa, FL., EOH Public Health Seminar, University of South Florida. March 2007.

AL Stuart and DA Wilkening. Degradation of biological weapons agents in the environment and its implications for terrorism response. 6th Annual Meeting of the Consortium of Biodefense Researchers, University of South Florida. June 2005.

AL Stuart, MC Barth, WC Skamarock, and MZ Jacobson. Volatile chemical retention during hydrometeor freezing and its effects on tropospheric chemistry. Atmospheric Sciences Symposium, University of California at Berkeley. November 2001.

Invited Presentations, Talks, Interviews and Panels (selected)

Presentation on Tampa air pollution. League of United Latin American Citizens, September 17, 2022.
Interview for Channel 10 Tampa Bay news article. From car emissions to the wind, here's what's contributing to Hillsborough County's ozone pollution. January 27, 2022. https://www.wtsp.com/article/tech/science/environment/hillsborough-county-ozone-pollution-air-quality/67-6b070a6d-4323-4eb0-a5e1-8b1a532f04bf
Adventures in urban design, air pollution exposures, and environmental equity. Translational Research and Evaluation Seminar, USF Center of Excellence in Material and Child Health. April 30, 2021.
Podcast Panel Interview. Bringing it All Together: Environmental Health, Climate Change, and Advocacy series. Advocation – Change it Up! Activist Lab, USF. June 3, 2021. [https://anchor.fm/advocation/episodes/Environmental-Health--Climate-Change--and-Advocacy-eprb05]
Near road air quality. *Speaker*, Hillsborough Metropolitan Planning Organization Board Meeting. March 10, 2021. [https://planhillsborough.org/wp-content/uploads/2021/03/March-MPO-Draft-Agenda-Packet.pdf, https://www.youtube.com/watch?v=ZKCsvcdsP5Y]
Podcast Interview. Environmental Health, Climate Change, and Advocacy series: Podcast #1. Advocation – Change it Up! Activist Lab, USF. February 3, 2021. [https://anchor.fm/advocation/ episodes/Environmental-Health--Climate-Change--and-Advocacy-eprb05]

Near road air quality. *Speaker*, Virtual Joint Meeting of the Technical & Citizens Advisory Committees, Metropolitan Planning Commission, Hillsborough County, FL. Dec. 16, 2020.
Session Moderator, Session 2: Covid-19 and fostering informed decisions and actions. AEESP Converging Covid-19: Environment, Health, and Equity. October 23, 2020. [http://aeespconvergingcovid19.org/sessions/]
Near road air quality: health impacts, exposures, mitigation measures, and the potential of low-cost monitoring. *Speaker*, Environmental Protection Commission meeting, Hillsborough County, FL. August 13, 2020. [https://www.youtube.com/watch?v=wDGZhWsaCE0]
Air pollution unequally affects people in Tampa, study says. *Radio Interview,* WUSF News. Sept. 11, 2019. [https://wusfnews.wusf.usf.edu/post/air-pollution-unequally-affects-people-tampa-study-says]
USF COPH: A passion for environmental health. *Video Interview,* COPH, USF. April 8, 2019. [https://www.youtube.com/watch?v=yeCSD-FEDQQ]
COPH professor studies the inequality of air pollution exposure in Tampa Bay". *Newsletter Interview*, College of Public Health News. April 4, 2019. [https://hscweb3.hsc.usf.edu/health/publichealth/news/coph-professor-studies-the-inequality-of-air-pollution-exposure-in-tampa-bay/]
Impacts of urban and transportation design on exposures to traffic-related air pollution and exposure equity. Center for Transportation, Environment and Community Health, Annual Meeting, Davis, CA. November, 2018.
Air quality design for sustainability. Institute for a Sustainable Environment and Dept. of Chemical Engineering, Clarkson University. January 2017.
Sustainable cities: an air quality perspective. Student Chapter, Society of Toxicology, University of South Florida. February 2016.
Sustainable cities: an air quality perspective. Induction Speaker, Science National Honor Society, Brooks DeBartolo Collegiate High School, Tampa, FL. February 2016.
Estimating impacts of commute route, mode, and time of day on exposures to traffic-related air pollutants. Air Quality Workshop, University of Florida. November 2015.
Sustainable cities: and air quality perspective. *Honorable Guest Speaker*, Science National Honor Society Induction, Brooks Debartolo Collegiate High School. February, 2016.
Clean Power Plan Press Conference. *Panel Speaker*. Physicians for Social Responsibility Tampa Bay. September 2014.
Connecting urban design, transportation, air pollution exposures, and environmental equity. Department of Health. Perth, Australia. May 2014.
Adventures in air pollution. School of Population Health, The Univ. of Western Australia. March 2014.
Building the AWMA USF Partnership - A look at USF programs and research related to air and waste management. Tampa Bay Chapter of the Air and Waste Management Association. June 2012.
Breathing free in Tampa: Air pollution, urban design, and environmental equity. Physicians for Social Responsibility Tampa Bay. February 2012.
Congratulations, you are a CAREER winner! Now what? Panel, Assoc. of Env. Eng. and Sci. Professors. Education and Research Conference. July 2011.
Professional Development Panel for Students and Young Professionals. Air and Waste Management Association, 104th Annual Conference and Exhibition. June 2011.
Air pollution, urban design, and environmental equity. Tampa Bay Chapter of the Air and Waste Management Association. October 2010.
Interdisciplinary platforms for environmental health. Advanced Interdisciplinary Seminar in Public Health, University of South Florida. June 2010.
Air pollution, environmental equity, and urban design in Tampa. American Meteorological Society Meeting, Tampa Chapter. November 2009.
Air pollution – interactions with transportation, urban growth, and equity. Center for Urban Transportation Research. October 2009.
Air pollution, health equity, and sustainability. Research Exper. for Undergrad. Seminar, USF. July 2009.
Sustainable Healthy Communities: Mercury. Board of Trustees Working Group Mtng., USF. Feb. 2009.
Computation at the Interface between Public Health and Engineering. Symposium on High-Performance Computing, University of South Florida. January 20, 2009.
Air pollution and its interactions with transportation. Center for Urban Transportation Research, University of South Florida. October 22, 2008.
Sustainable Healthy Communities: An integrated comparative study of mercury contamination and exposures in the Tampa Bay and Guyana. Environmental Research Interdisciplinary Colloquium, USF. October 10, 2007.

Climate Change and the Media. *Radio Interview*, Florida Matters, WUSF. Sept. 21, 2007

Focus on Tampa Bay Air Quality: mercury, sustainability, and environmental justice. Environmental Protection Commission of Hillsborough County. May 8, 2007.

Environmental Degradation of Biological Weapons Agents: Implications for Terrorism Response. Florida Environmental Health Association, Tampa Bay Chapter. February 2, 2007.

Data assimilation for improved air quality forecasts. EOH Seminar, Univ. of South Florida. April, 2006.

Ensemble Kalman Filter data assimilation with a 2-D sea breeze chemical tracer model. Environmental Research Interdisciplinary Colloquium, USF. October 20, 2005.

Environmental Degradation of Biological Weapons Agents: Implication for terrorism response. EOH Public Health Seminar. University of South Florida. February, 2005.

Pollutants in the atmospheric environment. University of South Florida. Tampa, FL. April 26, 2004.

An application of chemical engineering to understanding ice-chemical interactions in clouds: Partitioning during hydrometeor freezing. University of Iowa. Jan. 29, 2004.

Effects of cloud freezing on chemicals in the environment. University of Houston. May 4, 2004.

Pollutants in the Atmospheric Environment. Texas A&M University. Atmospheric Sciences Department. College Station, TX. April 12, 2004.

Chemical partitioning during cloud hydrometeor freezing and its effects on tropospheric chemical distributions. Texas A&M University. Sept. 30, 2003.

Environmental Degradation of Chem-bio Weapons Agents. Sandia National Laboratories, System Studies Department. Livermore, CA. June 26, 2003.

Denaturing of Chem-bio Weapons Agents in the Environment. Center for International Security and Cooperation. Stanford University. Stanford, CA. June 10, 2003.

Volatile chemical partitioning during cloud hydrometeor freezing and its effects on tropospheric chemical distributions. Princeton University. Science, Technology and Environmental Policy Program. December 18, 2002.

Volatile chemical partitioning during cloud hydrometeor freezing and its effects on tropospheric chemical distributions. Naval Research Laboratory. Marine Meteorology Division. Monterey, CA. Nov. 2002.

Environmental Processing of Biological and Chemical Weapons Agents. Lawrence Livermore National Labs. Atmospheric Sciences Div. Livermore, CA. November 2002.

Volatile chemical partitioning during cloud drop freezing: Modeling studies. NASA Ames Research Center. Atmospheric Physics Branch. Moffett Field, CA. February 2002.

Volatile chemical partitioning during cloud drop freezing: Modeling studies. University of Wyoming. February 2002.

RESEARCH MENTORING

Awards Received by Supervised Students

G Saliceto. Best poster in the field of 'Other Research'. USF Health Research Day, USF (2024)
G Saliceto. Clinical & Transl. Res. Award (Masters Student Res.) USF Health Research Day, USF (2022)
Y Luo. Finalist, Health and Life Sciences category. Graduate and Prof. Research Symposium, USF (2021)
C Chakraborty, Finalist, Engineering category. Graduate and Prof. Research Symposium, USF (2021)
N Vijaykumar. Basic Science Research Award (COPH). USF Health Research Day, USF (2021)
K Marroquin. Best poster, Undergraduate student poster competition. Health Research Day, USF (2016).
S Gurram. Poster presentation award with $100 travel grant. Engineering Research Day, USF (2015).
M Resto. Poster presentation award with $500 travel grant. Engineering Research Day, USF (2015).
J Sears. 1st place, graduate student poster competition. Florida Section A&WMA Conference (2013).
J Sears. Best Poster Award. Health Research Day, USF (2012).
R Michael. Outstanding Presentation Award. Health Research Day, USF (2012).
H Yu. Sam Bell Endowed Scholarship, College of Public Health, USF (2012).
H Yu. S. Gurram. Graduate Research Challenge Grant, USF (2012).
S Fridh. 2nd Place, MS student poster competition. A&WMA Annual Conference and Exhibition (2011).
H Yu. 3rd Place, PhD student poster competition. A&WMA Annual Conference and Exhibition (2011).
R Michael. College of Public Health Student Research Scholarship, USF (2011).
H Yu. Graduate Research Challenge Grant, USF. (2011).
H Yu. Sustainability Research Scholarship Award, Air and Waste Management Association (2011).
H Yu. The Axel Henderson Scholarship, Florida Section A&WMA (2011).

H Yu. 1st Place Outstanding Poster Award. Health Research Day, USF (2011).
R Michael. Outstanding Poster Award. USF Health Research Day (2011).
A Evans. Environmental Public Health Training Fellowship. Assoc. of Schools of Public Health / U.S. Environmental Protection Agency (2010).
A Evans. Outstanding Graduate Student Award. University of South Florida (2010).
T Halfhide, J Howard, R Michael and D Soledad. Graduate Student Challenge Grants, USF. (2009).
M Zeager. Pediatric Environ. Health Fellowship. Harvard University and Children's Hospital Boston. (2008)
T Halfhide, J Howard, R Michael, C Einmo, D Dey. Best graduate poster: Understanding mercury in Hillsborough River, Florida, using Sustainability Concepts. USF Going Green Expo (April 2008).
R Michael. Graduate Multidisciplinary Scholar. University of South Florida (2008).
C Einmo, R Michael, M Grey, et al., 1st Place. Environmental Challenge, Florida Section Air and Waste Management Association Annual Meeting Competition (2007).

Current Student Research Mentoring/Supervision

Farin Tasnuvah Dhara, PhD student (major professor) August 2024 – present
Department of Civil and Environmental Engineering, College of Engineering, USF

Yonghong Luo, PhD candidate (major professor) August 2020 – present
Concentration in Environmental and Occupational Health, College of Public Health, USF
Topic: Community-based air quality monitoring: impacts on empowerment in urban decision making

Gennaro Saliceto, MSPH student (major professor) September 2021 – present
Concentration in Environmental and Occupational Health, College of Public Health, USF
Topic: Community-based assessment of odors in Childs Park

Serena Echols, MPH graduate research assistant (research supervisor) January 2024 – present
Concentration in Environmental and Occupational Health, College of Public Health, USF
Topic: Community outreach and educational materials development for an air sensor network

K. Fisher, MPH student (Integrated Learning Experience mentor) January 2024 – present
Concentration in Health, Safety, and Environment, College of Public Health, USF
Topic: Effects of environmental conditions on detection of cyanobacteria in Michigan's public water supply during winter

Hung Nguyen, Undergraduate research assistant (research supervisor) April 2024 – present
Dept. of Computer Science, College of Engineering, USF
Topic: Automated data processing and dashboard development for an air sensor network

Direction of Completed Postdoctoral Research

Nikhil Menon, Postdoctoral scholar (project director) October 2018– Spring 2020
Center for Urban Transportation Research, USF.
Topic: Analysis of the TBNext program from a HiAP perspective

Ryan Michael, Postdoctoral scholar (supervisor/mentor) Summer 2014 – Summer 2016
Department of Environmental & Occupational Health, USF.
Topic: Systems-based modeling for understanding and reducing exposures to air pollutants

Haofei Yu, Postdoctoral scholar (supervisor/mentor) Fall 2013 – Summer 2014
Department of Environmental & Occupational Health, USF.
Topic: Estimation of emissions and concentrations of air pollution

Daniel Mendoza-Lebrun, Postdoctoral scholar (supervisor/mentor) June 2012 – June 2014
University of South Florida
Topic: Commuter exposure modeling

Patrick Pancras, Postdoctoral research faculty (supervisor) July 2006 – June 2007
Department of Environmental & Occupational Health, USF
Topic: Tampa Bay toxics assessment

Direction of Completed Doctoral Dissertations

Sashikanth Gurram, Dissertation (co-major professor) PhD 2017
Department of Civil and Environmental Engineering, USF
Title: Understanding the linkages between urban transportation design and population exposure to traffic-related air pollution: application of an integrated transportation and air pollution modeling framework to Tampa, FL. http://scholarcommons.usf.edu/etd/7030
Currently: Microsoft, Bellevue, WA

Kayon Barrett, Dissertation (co-major professor) PhD 2017
Department of Environmental and Occupational Health, USF.
Title: The Influence of Tropical Forests and Climate Change on the Fates of Select Organic Pollutants in a Jamaican Watershed. https://scholarcommons.usf.edu/etd/6678/
Currently: Assistant professor, Tarleton State University, TX

Ryan Michael, Dissertation (major professor) PhD 2013
Department of Environmental & Occupational Health, USF
Title: Investigation of mercury use, release, deposition, and exposures in the Tampa Bay area. http://scholarcommons.usf.edu/etd/4919/
Subsequently: Joint CDC-NCAR Postdoctoral Fellowship, Boulder, CO and Atlanta, GA.

Haofei Yu, Dissertation (major professor) PhD 2013
Department of Environmental & Occupational Health, USF
Title: A modeling investigation of human exposure to select traffic-related air pollutants in the Tampa area: spatiotemporal distributions of concentrations, social distributions for exposure, and impacts of urban design on both. http://scholarcommons.usf.edu/etd/4795/
Currently: Associate Professor, Department of Civil, Environ. Constr. Eng., Univ. of Central Florida.

Completed Doctoral Dissertation Committees

Martha Mcalister, Dissertation PhD 2024
Civil and Environmental Engineering, College of Engineering, USF
Title: Leveraging systems thinking for global environmental health

Nisha Vijaykumar, Dissertation (co-major prof.: 2019-22; member: 2022-23) PhD 2023
Environmental and Occupational Health Concentration, College of Public Health, USF
Title: Exposure characteristics of environmental chemicals by life stage

Fizza Zahid, Dissertation PhD 2021
Department of Civil and Environmental Engineering, USF
Topic: Impact of grain morphology on the temporal evolution of interfacial area during multi-phase flow in porous media

Charlotte Haberstroh, Dissertation PhD 2021
Department of Civil and Environmental Engineering, USF
Title: Plastic pollution in urban rivers: spatial and temporal patterns of plastic release and transport

Zhiwei Chen, Dissertation PhD 2020
Department of Civil and Environmental Engineering, USF
Title: Designing next-generation transportation systems with emerging vehicle technologies
Currently: Assistant professor, Civil, Architectural, and Environmental Engineering, Drexel University

Yousif Abdullah, Dissertation PhD 2020
Geography and Environmental Sciences & Policy, School of Geosciences, USF
Title: The use of Spanish moss as a biological indicator to examine relationships between metal air pollution, vegetation cover, and environmental equity in Tampa, Florida

Rema Ramakrishnan, Dissertation PhD 2017
Department of Epidemiology and Biostatistics, USF
Title: Ambient ozone and cadmium as risk factors for congenital diaphragmatic hernia
Currently: Senior statistician, National Perinatal Epidemiology Unit, University of Oxford

Jean Paul Tanner, Dissertation PhD 2017
Department of Epidemiology and Biostatistics, USF
Title: Ambient benzene and $PM_{2.5}$ exposure during pregnancy: examining the impact of exposure assessment decisions on associations between birth defects and air pollution
Currently: Assistant professor, College of Public Health, University of South Florida

Shabnam Mehra, Dissertation PhD 2017
Department of Environmental and Occupational Health, USF
Title: Estimating the impact of a select criteria pollutants ($PM_{2.5}$) on childhood asthma in Florida

Joanne Sullivan, Dissertation PhD 2010
Department of Geography, USF
Topic: Urban heat island and its effects on weather modification in Tampa, FL

Joniqua Howard, Dissertation PhD 2010
Department of Civil and Environmental Engineering, USF
Topic: Mercury in the environment – Field sites from Tampa, Bolivia, and Guyana

Max Moreno, Dissertation PhD 2008
Department of Environmental and Occupational Health, USF
Title: Eutrophication trend of lakes in the Tampa Bay watershed and the role of submerged aquatic vegetation in buffering lake water phosphorous

Son Hong Ho, Dissertation PhD 2007
Department of Mechanical Engineering, USF
Title: Numerical simulation of thermal comfort and contaminant transport in air-conditioned rooms

Kerstin Kenty, Dissertation (outside chair) PhD 2006
Department of Chemical Engineering, USF
Title: Measurement and modeling of oxides of nitrogen from vehicular contributors

Silvia Calderon, Dissertation (outside chair) PhD 2006
Department of Chemical Engineering, USF
Title: Estimation of the particle and gas scavenging contributions to wet deposition of organic and inorganic nitrogen

Direction of Completed Master of Science Theses

Talha K. Kocak, Master's Thesis (major professor) MS 2019
College of Public Health, USF.
Title: Air pollution and equity impacts of a proposed transportation improvement program for Tampa
Currently: Environmental engineer / occupational safety specialist, Health Safety and Environment, Turkish Petroleum Corporation

Josh Donegan, Master's Thesis (co-major professor) MS 2018
Department of Civil and Environmental Engineering, USF.
Title: Design and Implementation of a Ferrocement Improved Cookstove in Rural Panama
Currently: Environmental engineer, AECOM

Jill Sears, Master's Thesis (major professor) MS 2013
Department of Environmental & Occupational Health, USF.
Title: Spatial distribution of nitrogen oxides, benzene, toluene, ethylbenzene, and xylenes in Hillsborough County, Florida: An investigation of impacts of urban forests on ambient concentrations of air pollutants associated with traffic
Currently: Staff EHS Scientist at Golder Associates, Jacksonville, FL.

Merril Putnam, Master's Thesis (co-major professor) MS 2013
Department of Civil and Environmental Engineering, USF.
Title: Insight into the use, perception, and value surrounding domestic water in Peru: envisioning demand management in an intermittent, small-city service context
Currently: Water Resources Engineer, AECOM Technology Corporation, Los Angeles, CA.

Samantha Fridh, Master's Thesis (major professor) MS 2011
Department of Environmental & Occupational Health, USF.

Title: A pilot study of small-scale variations in outdoor benzene concentrations
Currently: Environmental Epidemiologist, Florida Dept. of Health, Hillsborough County, FL.

Amanda Evans, Master's Thesis (major professor) MS 2010
Department of Environmental & Occupational Health, USF.
Title: A pilot study of small-scale spatial variability in aldehyde concentrations in Hillsborough County, FL
Subsequently: ORISE Environmental Health Fellowship, US EPA, Cincinnati, OH.

Ryan Michael, Master's Thesis (major professor) MS 2008
Department of Civil & Environmental Engineering, USF
Title: Fate of volatile chemicals during accretion on wet growing hail

Completed Master of Science Thesis Committees

Zhiwei Chen, Master's Thesis MS 2019
Department of Civil and Environmental Engineering, USF.
Title: Exploring the equity performance of bike-sharing systems with disaggregated data: a story of southern Tampa

Michael Usowicz, Master's Thesis MS 2018
Department of Civil and Environmental Engineering, USF
Title: Field testing of affordable well head protection for locally manufactured, self-supply pitcher pumps on manually driven tubewells in Madagascar

Shakira Hadley, Master's Thesis MS 2013
Department of Civil and Environmental Engineering, USF
Title: Modified double agar layer method to detect bacteriophage for assessing the potential of wastewater reuse in rural Bolivia

Trina Halfhide, Master's Thesis MS 2009
Department of Geography, USF
Title: Mercury perception, community awareness and sustainability implications for the Tampa Bay Region, Florida

Direction of Other Completed Graduate Degree Project Research Manuscripts

W. Ruff, Integrated Learning Experience Report (project mentor) MPH 2023
MPH Concentration in Health Safety and Environment, College of Public Health, USF.
Title: Health impact of coca cultivation on Colombian farmers

S. Ramesha, Integrated Learning Experience Report (project mentor) MPH 2020
MPH Concentration in Environmental and Occupational Health, College of Public Health, USF.
Title: Accessibility to hospitals in Hillsborough County

F. Rahman, Integrated Learning Experience Report (project mentor) MPH 2020
MPH Concentration in Environmental and Occupational Health, College of Public Health, USF.
Title: Informal waste work and its integration into the formal waste management system in developing countries: Lessons for Indonesia

J. Murray, MPH Special Project Report (research co-advisor) MPH 2019
Department of Environmental and Occupational Health, USF.
Title: A geospatial analysis of rent burden in Hillsborough Co, FL.

A. Steiert, MPH Special Project Report (research advisor) MPH 2017
Department of Environmental and Occupational Health, USF.
Title: A chemical safety and hygiene plan for a multi-group university laboratory

P. Leandro-Reguillo, MPH Special Project Report (research advisor) MPH 2017
Department of Environmental and Occupational Health, USF.
Title: Environmental and urban risk factors for poverty increments in Detroit

C. Nasworthy, MPH Special Project Report (research advisor) MPH 2016
Department of Environmental & Occupational Health, USF.
Title: USF chlorine gas release planning
Currently: Emergency Management Officer, University of South Florida, FL.

S. Burns, MPH Special Project Report (research advisor) MPH 2013/ME 2014
Departments of Environmental & Occupational Health, and Civil and Environmental Engineering, USF.
Title: Sensitivity analysis of different temporal and spatial decisions for estimating maternal exposures to benzene and PM2.5 in Florida
Currently: Water/wastewater Engineer, Carollo Engineers, Tampa, FL.

C. Barrick, MPH Special Project Report (research advisor) MPH 2013
Department of Environmental & Occupational Health, USF.
Title: Reconciling greenhouse gas emissions programs: case study

T. Chu, MPH Special Project Report (research advisor) MPH 2013
Department of Environmental & Occupational Health, USF.
Title: Barriers and motivations to physical activity for adults in the Tampa Bay region
Subsequently: Environmental Scientist, Boylan Environmental Consultants, Inc., Fort Myers, FL.

A. Turnbull Lawrence, MPH Special Project Report (research advisor) MPH 2011
Department of Environmental & Occupational Health, USF.
Title: A review and analysis on the use of evaluation methods in the USF Laboratory Safety Training program to improve its effectiveness

H. Hurst, MPH Special Project Report (research advisor) MPH 2011
Department of Environmental & Occupational Health, USF.
Title: Acrolein in urban air - monitoring and health impacts

R. Davis, Master's Thesis (advisor in Public Health) MA/MPH 2010
Depts. of Anthropology and Environmental & Occupational Health, USF.
Title: Risk perception and polybrominated diphenyl ethers in Tampa area reclaimed water supply
Currently: Doctoral student, Inst. Resources, Environ. and Sustain., U. of British Columbia, Vancouver.

J. Womble, MPH Special Project Report (research advisor) MPH 2009
Department of Environmental & Occupational Health. USF
Title: Development of a passive sampling protocol for pilot study of benzene and 1,3-butadiene concentrations in ambient air

J. Graham, MPH Special Project Report (research advisor) MPH 2008
Department of Environmental & Occupational Health. USF
Title: Method selection and protocol development for passive measurement of aldehydes in ambient air.
Currently: Environmental Specialist I, Pinellas County Air Quality, Clearwater, FL

M. Zeager, MPH Special Project Report (research advisor) MPH 2008
Department of Environmental & Occupational Health. USF
Title: Spatial variation of nitrogen dioxide in Hillsborough County, Florida
Subsequently: Pediatric Environmental Health Fellow, Children's Hospital Boston, MA.
Currently: Asst. Clinical Professor, The Univ. of Texas Rio Grande Valley, Harlingen, TX.

K. Peacock, Project Report (project advisor) MA 2016
Patel College of Global Sustainability, USF.
Topic: Effectively engaging faith-based organizations in sustainability and environmental awareness

S. Bunchitmongkhon, Special Research Project Report (research advisor) MS 2009
Dept. of Chem. Eng., King Mongkut University of Technology, Thailand (KMUTT); Visiting scholar at USF
Title: Mass balance calculations for mercury cycling in Tampa Bay

T. Dethtada, Special Research Project Report (research advisor) MS 2009
Dept. of Chemical Engineering, KMUTT; Visiting scholar at USF
Title: Urban land use and transportation growth modeling development for air quality

W. Traisantikul, Special Research Project Report (research advisor) MS 2009
Dept. of Chemical Engineering, KMUTT; Visiting scholar at USF
Title: Air pollution dispersion modeling for localized exposure in Tampa

S. Mudhasakul, Special Research Project Report (research advisor) MS 2007
Department of Chemical Engineering, KMUTT; Visiting scholar at USF
Title: Localized air quality and population disparities in Tampa, Florida

P. Borrisuth, Special Research Project Report (research advisor) MS 2007
Department of Chemical Engineering, KMUTT; Visiting scholar at USF
Title: Mercury atmospheric deposition study for Tampa Bay

Direction of Completed Undergraduate Honor's Theses

Jill Sears, Undergraduate Honor's Thesis (thesis advisor) BS 2011
Honor's College, USF.
Title: Public health implications of marina pollution on recreational beaches

Alexandra Tapper, Undergraduate Honor's Thesis (thesis advisor) BS 2009
Honors College, USF
Title: Mercury from dental amalgams – Routes of exposure and methods of reduction

Chantal Braithwaite, Undergraduate Honor's Thesis (thesis advisor) BS 2006
Honors College, USF
Title: Investigation of air pollution related health disparities in Tampa, Florida

Direction of Research by Other Students and Visitors

M. Mormino, undergraduate research assistant January – August 2024
Civil and Environmental Engineering, College of Engineering, USF
Topic: Community-based air quality measurement for environmental justice in the Tampa Bay area

R. Garrett, undergraduate research assistant January – April 2024
Civil and Environmental Engineering, College of Engineering, USF
Topic: Community-based air quality measurement for environmental justice in the Tampa Bay area

S. Jagan, undergraduate research assistant January – April 2024
Civil and Environmental Engineering, College of Engineering, USF
Topic: Community-based air quality measurement for environmental justice in the Tampa Bay area

N. Gaskin, undergraduate research assistant January – April 2024
Cell and Molecular Biology, USF
Topic: Community-based air quality measurement for environmental justice in the Tampa Bay area

S. Nice, undergraduate research assistant November 2021 – June 2022
Civil and Environmental Engineering, College of Engineering, USF
Topic: Low-cost monitoring for air pollution exposure measurement, equity, and community engagement

C. Chakraborty, graduate student Aug. 2020 – Aug. 2021
Civil and Environmental Engineering, USF
Topic: Satellite data for assessing traffic related air pollution and estimating exposures

S. Doyle, graduate student Fall 2018
College of Public Health, USF
Topic: Inequality indices for air pollution exposure

H. Hawasli, undergraduate student Summer 2018
Department of Civil and Environmental Engineering, USF
Topic: Measuring the impact of emerging transportation technologies on equity and public health

F. Ebrahimi, graduate student Jan. 2017 – Apr. 2018
Civil and Environmental Engineering, USF
Topic: Data assimilation for predictive modeling of coupled environmental systems

A.K. Marroquin, undergraduate student May 2015 – Dec. 2016
College of Engineering, University of South Florida (USF)
Topic: Using a route generator to stochastically estimate travel activity

M. Resto, undergraduate student May 2014 – Aug. 2016
Civil and Environmental Engineering, USF
Topic: Adding exposure factors to a commuter exposure modeling system

S. Slinn, undergraduate student — Fall 2015
Civil and Environmental Engineering, USF
Topic: Modeling of traffic-related air pollution in the Tampa area

T. Ogden, undergraduate student — Spring 2015
Civil and Environmental Engineering, USF
Topic: Evaluation of transportation modeling results

M. Butcher, graduate student — Fall 2012 – Summer 2013
Civil and Environmental Engineering, USF
Topic: Emissions from start-up, shut-down, and malfunction events

K. Pan, undergraduate student — Summer 2013
Research Experiences for Undergraduates (REU), Visiting Cornell University (Env. Eng.)
Topic: Modeling and measurement of select pollutants in the Tampa area

J. McLaughlin, K-12 science teacher — Summer 2013
Research Experiences for Teachers (RET), USF
Topic: Measurements campaign for BTEX concentrations in Hillsborough County

B. Valentine, K-12 science teacher — Summer 2012, 2013
Research Experiences for Teachers (RET), USF
Topic: Mercury fate and distributions - incorporating research into lesson plans

P. Garcia, undergraduate student — Spring 2013
Environmental Science and Policy Program, USF
Topic: Measurement of select pollutants in the Tampa area

J. Khurana, graduate student — Fall 2012 - Spring 2013
Computer Science and Engineering, USF
Topic: Programming support for commuter exposure modeling

J. Dorsey, undergraduate student — Fall 2012
Computer Science and Engineering, USF
Topic: Programming support for commuter exposure modeling

A. Amini, graduate student — Fall 2012
Civil and Environmental Engineering, USF
Topic: Sustainable transportation systems

C. Henry, Middle school student — Fall 2011 – Spring 2012
Science fair project, Hillsborough County, Florida
Title: What did you have for "Air" today? (Took 3rd Place at Regionals)

S. Signore, undergraduate student — Summer 2011
Research Experiences for Undergraduates (REU), Visiting from Florida State Univ (Civil & Env. Eng.)
Topic: Mass based inventory of mercury use and release in the Tampa area

A. Yassin, graduate student — Summer 2010
Urban and Regional Planning Program, Department of Geography
Topic: Greenhouse gas emissions from bus rapid transit

E. Henderson, undergraduate student — Summer 2010
Research Experiences for Undergraduates (REU), Visiting from University of Florida (Env. Eng.)
Topic: Spatial allocation and air dispersion modeling of port emissions in Tampa, FL

E. Francis, undergraduate student — Summer 2009
Research Experiences for Undergraduates, College of Engineering, USF
Topic: Air dispersion modeling of 1,3-butadiene in Tampa, FL

C. Einmo, graduate student — 2008 – 2009
Environmental and Occupational Health, Civil and Environmental Engineering, USF
Topic: Biomass burning emissions

B. Galbraith, graduate student — Spring 2007
Department of Civil and Environmental Engineering. USF

Topic: Temporal trends in mercury emissions in Florida

D. Martin, graduate student 2006 – 2007
Department of Environmental and Occupational Health, USF
Topic: Aerosolized microorganism survivability, infectivity, detection and modeling

T. Patel, graduate student Spring – Summer 2006
Department of Epidemiology and Biostatistics, USF
Research Topic: Tampa bay air quality affects of respiratory and cardiovascular health

S. Perry-Eaton, K-12 science teacher Summer 2006
Research Experiences for Teachers (RET), University of South Florida
Topic: Mapping study of air quality in Tampa, FL

F. Breckner, graduate student 2005 – 2006
Department of Environmental & Occupational Health, USF
Topic: Vehicular emissions and air quality in Jakarta, Indonesia

P. and M. Bhandari, graduate students Fall 2005
Department of Civil and Environmental Engineering, USF
Topic: Water logging and salinization in Muktsar, India

COURSE TEACHING, CURRICULUM DEVELOPMENT, AND ACADEMIC ADVISING

Air Pollution Fundamentals (ENV 4102) Fall, 2020 – present
Dept. of Civil and Environ. Engineering, USF
3-credit undergraduate course (Required for the BS in Environmental Engineering). Development of course objectives and curriculum. Preparation and presentation of lecture material. Facilitation of class activities. Development of quizzes, assignments, and exams, and their solutions. Development of materials for peer-review of assignments and answer keys. Grading of exams and assignments. Preparation of ABET assessment materials on student performance.

Numerical and Computer Methods and Tools I (EGN 4453) Spring (primarily), 2009 – 2022
Department of Civil & Environmental Engineering, University of South Florid*a*
3-credit undergraduate lecture and computer laboratory course (Required for the BS in Civil Engineering). Development of course objectives and curriculum. Development and presentation of lecture material. Preparation and facilitation of laboratory sessions. Development of class homework assignments and grading rubrics, laboratory assignments, and exams. Grading of exams and projects. Supervision of TA assignment grading.

Principles of Environmental Health (PHC 6300) Spring, 2024 – present
College of Public Health, USF
3-credit masters levels lecture course (Required for the MPH in EOH and HSE). Revision of course objectives and curriculum. Review and curation of course content videos, lecture materials, and activities. Development of a weekly discussion assignment with peer review. Development of case study report grading rubric. Supervision of TA assignment grading, and grading of written reports.

Community Air Pollution (PHC 6303 / ENV 6105) Fall, 2005 – present
Concentration in Environmental & Occupational Health, College of Public Health, USF
3-credit graduate course. Development of course objectives and curriculum. Preparation and presentation of lecture material. Facilitation of class activities. Development of quizzes, assignments, and exams. Development of a graduate course project involving literature review, oral presentation, and paper writing. Development of materials for peer-review of project components, including a writing evaluation rubric. Grading of exams, projects, and assignments.

Structured Programming and Computational Analysis (PHC 6934)/ Spring, 2017, 2019, 2021
Programming and Numerical Methods (CGN 6933)
Concentration in Environmental & Occupational Health, and Dept. of Civil and Environ. Engineering, USF
3-credit graduate lecture, discussion, and project course. Development of course objectives and curriculum. Development of class assignments and exams. Preparation and presentation of lecture material. Facilitation

of class activities. Supervision of projects involving programming and numerical analysis, oral presentation, and paper writing. Grading of exams and projects.

Environmental Modeling (PHC 7935 / CGN 6933) Spring, 2007, 2010, 2012, 2018, 2022
Concentration in Environmental & Occupational Health, and Dept. of Civil and Environ. Engineering, USF
3-credit doctoral lecture, discussion, and project course. Development of course objectives and curriculum. Preparation and presentation of lecture material. Facilitation of class activities. Development of class assignments and exams. Supervision of course projects involving model development or analysis, oral presentation, and paper writing. Grading.

Systems Science and Population Health (PHC 6934) Fall, 2021
College of Public Health, USF
3-credit interdisciplinary graduate course. Developed course curriculum in collaboration with two other faculty members. Prepared and presented lecture material. Developed assignments. Co-developed a group course project involving systems analysis, oral presentation, and paper writing. Graded assignments and project work.

Sustainability Concepts and Methods (PHC 6934, CNG 6933, GEO6119) Spring, 2008, 2009
Depts. of Environmental & Occ. Health, Civil & Environmental Engineering, and Geography, USF
Interdisciplinary graduate course. Led the development of course curriculum in collaboration with two other faculty members. Prepared and presented lecture material. Developed assignments and computer exercises. Co-developed a group course project involving literature review, field chemical sampling, field population survey, system modeling, oral presentation, and paper writing. Co-supervised a course field research trip to Guyana. Graded assignments and the project.

Environmental Research Interdisciplinary Colloquium Spring, 2005 – 2008; Fall, 2005 – 2018
Departments of Environmental & Occupational Health and Civil & Environmental Engineering, USF
(with graduate and undergraduate courses attached in Environmental Science & Policy), USF
Interdisciplinary seminar series. Founded the series with two other faculty members in different colleges. Wrote internal proposals to secure speaker and colloquium funding. Led the organization of seminars for the first few years of the series. Development of course objectives and curriculum. Selection, scheduling, and communication with speakers and student facilitators. Grading of course assignments.

Environmental Health Research Discussions Fall, 2005, 2006
Department of Environmental & Occupational Health, University of South Florida
Doctoral course focused on developing research skills. Developed course curriculum. Prepared and presented lecture material. Facilitated class discussions and student presentations.

Advanced Atmospheric Chemistry Seminar Spring, 2004
Department of Atmospheric Sciences, Texas A&M University, College Station, TX
Doctoral lecture and discussion course. Led a team of four instructors. Designed course structure, general content, lectures, and student projects. Determined specific course content on cloud chemistry topics. Graded course presentations and papers.

Contract Courses 2005 – present
Concentration in Environmental & Occupational Health, and Dept. of Civil and Environ. Engineering, USF
Independent Study, Directed Research, Special Project, Field Placement, and Thesis courses involving supervision of student research projects or experiences.

Guest Lecturer on air pollution and exposure analysis topics 2005 – present
University of South Florida
Presentation of lectures for several courses including a Certified Hazardous Materials Managers preparation course, the Environmental and Occupational Health core class, Introduction to Environmental Engineering, and the Executive MPH weekend program course

Substitute Lecturer, Air Pollution Spring, 2003
Department of Civil & Environmental Engineering, Stanford University, Stanford, CA
Undergraduate and graduate level lecture course; Instructor: M. Z. Jacobson

Teaching Assistant, Air Pollution Spring, 2000
Department of Civil & Environmental Engineering, Stanford University, Stanford, CA
Undergraduate and graduate level course; Instructor: M. Z. Jacobson
Ran weekly lecture-style review sessions. Designed a class project on visibility. Corrected homework assignments and exams. Held weekly office hours to assist students with class material.

Other Curriculum Development and Supervision

Environmental and Occupational Health concentration (MPH, MSPH, PhD) 2018 – present
College of Public Health, USF
Participate in the management of the graduate student programs.
Concentration Lead (2018 – present). Oversee the program curriculum, admissions, and students.

Environmental and Water Studies program (EWRE) 2005 – present
Department of Civil & Environmental Engineering (CEE), USF
Participate in the development and evaluation of program curriculum for graduate and undergraduate students. Co-led the development of curriculum, in collaboration with two other faculty leads, for a newly-launched BS Environmental Engineering degree program (2019-2022).

Environmental Health graduate program 2005 – 2018
Department of Environmental & Occ. Health (EOH), USF
Led program curriculum development for the Environmental Health (EH) graduate program. Developed joint curriculum, coursework, and degrees between EH, EWRE in CEE, the Environmental Science and Policy Program, the Dept. of Geography, and the Dept. of Anthropology.

Environment Health graduate certificate 2008 – 2018
Department of Environmental & Occupational Health, University of South Florida
Certificate Director. Founded a 12-unit certificate program to serve students in other majors and professionals. Review of certificate program applications for admittance and completion. Development and assessment of certificate outcomes.

Academic Advising/Mentoring

MPH, MSPH, and PhD students Spring 2005 – present
Environmental & Occupational Health, University of South Florida (USF)
Degree advising/mentoring of a few students each semester.

Undergraduate students Sept 1998 – June 2000
Stanford University
Advised six undergraduate students with undeclared majors who were interested in science or engineering.

PROFESSIONAL SERVICE

Journal Manuscript Reviewer (selected)
Aerosol and Air Quality Research
Air Quality, Atmosphere and Health
Atmospheric Chemistry and Physics
Atmospheric Environment
Atmospheric Pollution Research
Bulletin of the American Meteorological Society
Environmental Pollution
Environmental Research
Environmental Science and Technology
Environmental Science and Technology Letters
Geoscientific Model Development
Global Environmental Change
International Journal of Environment and Pollution
International Journal of Hygiene and Environmental Health
Journal of Atmospheric Chemistry
Journal of Environmental Engineering
Journal of Environment and Public Health
Journal of Environmental Planning and Management
Journal of Geophysical Research – Atmospheres
Journal of Hazardous Toxic and Radioactive Waste
Journal of Professional Issues in Engineering Education and Practice

Journal of the Air and Waste Management Association
Journal of Transport and Health
Journal of Transport Geography
Lancet Planetary Health
Land Use Policy
Maternal and Child Health Journal
Mathematical and Computer Modeling
Monthly Weather Review
One Earth
PLoS One
Science of the Total Environment
Sustainable Cities and Society
Transportation Research Part A
Transportation Research Part D

Grant Proposal Reviewer (selected)

Civilian Research and Development Foundation, US
Deutsche Forschungsgemeinschaft (GRF), Germany
Environmental Protection Agency, US
National Environmental Research Council, United Kingdom
National Institutes of Health, US
National Oceanographic and Atmospheric Administration, US
National Science Foundation, US
University of South Florida New Researcher Grant

Academic Colleague Reviewer (selected)

External reviewer for promotion to full professor. A. Kalkbrenner. University of Wisconsin Milwaukee (2024)
Letter writer for Tier 2 Canada Research Chair. L. Minet. University of Victoria (2020)
External reviewer for promotion and tenure. J. Fox. Lehigh University (2019)
External reviewer for promotion and tenure. J. Atkinson. University of Buffalo (2019)
External reviewer for promotion and tenure. Y. Wang. Indiana University (2018)
External reviewer for promotion and tenure. C. Hennigan. University of Maryland, Baltimore County (2017)
External reviewer for promotion to Senior Research Fellow—Level C (Research). S. Peters. University of Western Australia (2015)
External reviewer for promotion and tenure. C. Jia. University of Memphis (2014)

Other Professional Service (selected)

Member, Awards Committee, Assoc. of Environmental Engineering and Science Professors (2024 – present)
Member, Scholarship Review Committee, Florida Air and Waste Management Association (2010 – 2019)
Liaison for students, Florida Air and Waste Management Association (2007 – 2019)
Member, Lectures Committee, Association of Environmental Eng. and Science Professors, (2013 – 2019)
Member, Lecture Subcommittee, Air and Waste Management Association/Association of Environmental Engineering and Science Professors (2013 – 2017)
Leader, Coding Club presentation and workshop, Riverhills Elementary School (2016)
Faculty Advisor for middle school science fair student (2015)
Leader, Hour of Code, Greco Middle School (2014)
Faculty Advisor for middle school science fair student (2013)
Chair, Student Awards Committee, Higher Education Division, Education Council, Air and Waste Management Association (2011 – 2013); Vice chair (2008 – 2011)
Organizing committee. AEESP Biennial Conference, Association of Environmental Engineering and Science Professors (2010 - 2011)
Interim Vice Chair, Local Technical Committee for the 2011 Annual Meeting, Air &Waste Management Association (Fall 2009)
Faculty organizer and host, Association of Environmental Engineering and Science Professors Distinguished Traveling Lecture and Poster Session, University of South Florida (2008)
Guest advisor, JCCI Special Air Pollution Research Committee, Jacksonville (2008)
Guest Instructor, Great American Teach-In, Lewis Elementary School (2008)
Mentor, Student Outreach Activity, World Environmental and Water Resources Institute Congress (May 16, 2007)

Organizing Committee, Florida University Symposium and Environmental Research (2006)
Co-chair, Student poster competition, FL Section, Air and Waste Management Association Annual Meeting (2005)
Member, West Central FL Air Quality Coordinating Committee (2005)

University Service (selected)

Lead, Concentration in Environmental and Occ. Health (MPH, MSPH, PhD), CoPH, USF (2018 – present)
President, Faculty Assembly, College of Public Health, USF (Sept. 2018 – Sept. 2022)
Member, Computations Committee, Dept. Civ. Env. Eng. (CEE) (2012–2019)
Member, Selection Committee, Public Health Woman of the Year (2006, 2018)
Judge for Student Posters, USF Health Research Day (2005, 2009, 2012, 2018)
Member, Student Affairs and Admissions Committee, Dept. Env. Occ. Health (EOH) (2005–2018)
Member, Promotion and Tenure Committee, EOH (2015)
Member, Research Computing Advisory Committee, USF (2007– 2015)
Member, Council on Technology for Instruction and Research (2015)
Member, Sustainability Initiatives Steering Committee (2015)
Member, Research Advisory Committee, COPH (2006–2013)
Member, NORA Advisory Panel, EOH (2006–2012)
Advisor, Student chapter for USF, A&WMA (2007, 2008, 2009 2011)
Member, Website Committee, COPH (2011)
Member, Strategic Research Initiative Committee, EOH (2010)
Member, Faculty Advisory Board, USF School of Global Sustainability (2010)
Member, Faculty Report Testing Group, COPH (2010)
Member, Greenhouse gas and transportation committees, Climate Task Force, USF (2009)
Member, Strategic Planning Committee, Patel Center for Global Solutions (2006, 2009)
Member, Faculty Search Committee, Dept. of Chemistry (2006)