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ADMINISTRATIVE EXPERIENCE:

- **Founding Director** of the Urban Climate Research Center (UCRC), in the School of Geographical Sciences & Urban Planning (SGSUP) at Arizona State University (ASU). With an initial investment of \$400k and one administrative staff, I built the center into a cohesive group of 36 faculty affiliates across multiple schools. My primary responsibilities in this role are (1) to facilitate and build teams around opportunities of unusually large scope, but common interest (e.g., large NSF Center proposals), and crucial stakeholder relationships with government entities; and (2) to promote our faculty and their accomplishments.
- **Chair, ASU Senate Research and Creative Activities Committee (2020-21)**. Responsible for convening a diverse group of 11 committee members to discuss and develop solutions to Requests for Consultation (RFCs) that come to our committee.
- **Principal Investigator** on multiple large interdisciplinary and multi-institutional projects: NSF Dynamics of Coupled Natural and Human Systems (2004-2010) \$1.7M with 3 institutions; EPA-STAR Grant in Climate Change and Indoor Air Quality program (2015-2018) \$1M with 3 institutions. Additionally, I've led or co-led the development of several large NSF Center-level proposals (NSF STC—unsuccessful; NSF ERC—pending; and NSF SRS-RN—to be submitted Jan 2021). In these roles I have convened groups of researchers from across the social and physical sciences, orchestrated the development and writing of complex proposals, managed multi-million-dollar budgets, and facilitated communications and collegial interactions and resolution of disputes among a diverse group of faculty.
- **Co-Lead** for the CAP-LTER Climate and Heat Interdisciplinary Research Theme. In this role I co-coordinate and report on research conducted by CAP-LTER researchers on topics related to extreme heat and urban climate across the greater Phoenix metropolitan area.
- **Co-Lead** for the OKED Cities Campaign (2016-2018). In this role I convened 6 small thematic area working groups to develop a strategic plan for moving forward with large-scale cities-focused initiatives at ASU. The end result of this effort was a report to OKED to guide their plans for future support of cities-related research initiatives.
- **Founding Director** of the Green Building Research Laboratory at Portland State University (2009-2015), managing an annual research budget on the order of \$200k and an additional \$1M one-time infusion of funds from the US DoE. While my staff consisted only of a single laboratory manager, I oversaw research and outreach of our laboratory, including 4 core faculty associates as both a fee-for-service lab and as a shared user facility within the university. Upon accepting a position at another university, I transitioned the lab to the leadership of another faculty member, whom I had helped recruit.
- **Director** (1997-2002) of the US Department of Energy's Southcentral regional office of the National Institute for Global Environmental Change (NIGEC). In that role I supervised two staff at Tulane University and oversaw a \$1.2M annual research budget. I developed and managed an RFP process, allocating and managing research projects led by 8-10 faculty across multiple institutions from Arkansas, Colorado, Louisiana, New Mexico, Oklahoma, and Texas. As Director I ensured responsiveness of research projects to the NIGEC mission and facilitated within and across region coordination among NIGEC-funded efforts. Upon accepting a position at another university, I transitioned the leadership to another faculty member.

ACCOMPLISHMENTS:

- Secured university approval to establish the Urban Climate Research Center (UCRC) at Arizona State University.
- Helped establish a UCRC Foundation Account to ensure perpetual resources to run the annual Anthony J. Brazel lecture series. We have conducted two successful annual events and are in the middle of planning the 3rd.
- Organized and ran 3 successful annual UCRC poster events to highlight our students' research accomplishments and build relationships.
- Developed multiple external UCRC relationships including two that led to new MOUs to facilitate exchange of faculty and funding of research projects. One of these was with the Center for Computational Sciences at Tsukuba University. The other is a 10-year research relationship (MOU has been finalized and is awaiting signatures) with the Royal Commission for Riyadh focused on their initiative "Green Riyadh".
- Established an international research reputation, with an h-index of 39 and more than 5800 citations (per Scopus); receiving best paper awards from the journal *Building and Environment* (IF=4.97) for 2017 and *Energy and Buildings* (IF=4.87) for the decade 2008-2017; giving multiple invited keynote lectures; and securing over \$6M of external research funds as PI.
- Developed and led the Green Building Research Laboratory. In addition to establishing a successful fee-for-service model, collaborating with local industry, small innovators, and non-profits, I secured a \$1M investment from the US Department of Energy to facilitate our efforts. Also established the GBRL as an "Oregon-BEST lab" which facilitated our work with start-up companies and contribute to their success (see www.youtube.com/watch?v=_9Ni7bL7KHE)
- As Chair of the Board of the Urban Environment for the American Meteorological Society, I initiated the first joint conference between the AMS Board on the Urban Environment and the International Association for Urban Climate (Dublin, 2012). This joint meeting has been repeated on an 18-month cycle since its inception.
- Participated as a contributing author to Working Group II of the 4th IPCC. This effort shared the 2007 Nobel Peace Prize, and I was recognized for my contribution to this honor.

EDUCATION:

Ph.D.	Mechanical Engineering, University of California, Berkeley	1993
	<i>Thesis advisors: Drs. Hashem Akbari, Van P. Carey (chair), Art Rosenfeld</i>	
	<i>Dissertation: "Role of Surface Characteristics in Urban Meteorology and Air Quality"</i>	
M.S.	Mechanical Engineering, University of California, Berkeley	1990
B.S.	Mechanical Engineering, University of Washington, Seattle	1988

POSITIONS HELD:

Professor (2016-present), School of Geographical Sciences and Urban Planning, Arizona State University

Director (2016-present), Urban Climate Research Center, Arizona State University

Senior Sustainability Scientist (2016-present), Julie Ann Wrigley Global Institute of Sustainability (GIOS), Arizona State University.

Member, Graduate Faculty, (2016-present), School of Sustainable Engineering and the Built Environment, Arizona State University.

Visiting Research Professor, (2016-2018), at Portland State University.

Director, Green Building Research Laboratory (2009-2015), Portland State University

Professor (2008-2015), Dept. of Mechanical Engineering Portland State University

Associate Professor (2003-2008), Dept. of Mechanical Engineering Portland State University

Director South Central Regional Center of the National Institute for Global Environmental Change, at Tulane University (April 1999-Dec. 2002).

Associate Professor (1999-2003), Dept. of Mechanical Engineering, Tulane University
Assistant Professor (1993-1999), Dept. of Mechanical Engineering, Tulane University

RESEARCH INTERESTS:

Urban Climate—investigation of feedback mechanisms between the built environment and local climate with a focus on building envelopes, waste heat emissions, vegetative and artificial shade, and renewable energy in urban settings. Methods include field measurements and regional scale to neighborhood scale atmospheric modeling for studying causes, effects, and potential for mitigation of urban heat islands.

Green/Sustainable Building—development and evaluation of building technologies and strategies with a focus on improving indoor and outdoor environments, reducing building energy consumption, and enhancing passive survivability. Methods include embedded sensors and whole building simulation.

PUBLICATIONS IN REVIEW OR PREPARATION:

- Sailor, D.J.**, J. Anand, R.R. King, 2021^{TBD}. “Photovoltaics in the Built Environment: A critical review,” an invited review to be submitted, *Energy and Buildings*.
- Krayenhoff, E.S., A.M. Broadbent, E. Erell, L. Zhao, M. Georgescu, A. Middel, J.A. Voogt, A. Martilli, **D.J. Sailor**, 2021^{TBD}. “Cooling hot cities: A systematic and critical review of the numerical modelling literature,” in revision for *Environmental Research Letters*.
- Wilhelmi, O.V., C.R. O’Lenick, M.H. Hayden, R.D. Michael, **D.J. Sailor**, V. Nepal, D. Banerjee., 2021^{TBD}. Contextualizing vulnerability of older adults to extreme heat and ozone: Results from Houston, TX household survey, in preparation for *Social Science and Medicine*.
- Crank, P.J., C.R. O’Lenick, O.V. Wilhelmi, and **D.J. Sailor**, 2021^{TBD}. “Behaviors and risk perceptions of elderly populations in the face of extreme heat and poor air quality—a comparison across three sunbelt cities,” in preparation.
- Crank, P.J., D.M. Hondula, and **D.J. Sailor**, 2021^{TBD}. “Mental health and heat: a distributed lagged non-linear model approach to risk and mitigation for schizophrenia hospital admissions in arid and urban climates,” in preparation.

PEER-REVIEWED PUBLICATIONS:

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Scopus/Google Scholar h-index=40/46. Dec. 2020

Asterisks indicate numbers of citations (*=more than 100; **=more than 200; and so forth); Undergraduate authors indicated by superscript “ug”; Top publication venues: *Building and Environment* (10 articles, IF=4.97); *Energy and Buildings* (9 articles, IF= 4.87); *Atmospheric Environment* (8 articles, IF= 4.01); *Solar Energy* (6 articles, IF= 4.67)

115. Anand, J., **D.J. Sailor**, A. Baniassadi, 2020. “The relative role of solar reflectance and thermal emittance for passive daytime radiative cooling technologies applied to rooftops,” *Sustainable Cities and Society*, <https://doi.org/10.1016/j.scs.2020.102612>.
114. O’Lenick, C.R., A. Baniassadi, R. Michael, A. Monaghan, J. Boehnert, X. Yu, M.H. Hayden, C. Wiedinmyer, K. Zhang, P.J. Crank, J. Heusinger, P. Hoel, **D.J. Sailor**, and O.V. Wilhelmi, 2020. A case-crossover analysis of indoor heat exposure on mortality and hospitalizations among the elderly in Houston, Texas, *Environmental Health Perspectives*, <https://doi.org/10.1289/EHP6340>
113. Galal, **D.J. Sailor**, O., H. Mahmoud, 2020. “The impact of urban form on outdoor thermal comfort in hot arid environments during daylight hours, Case Study: New Aswan,” *Building and Environment*. <https://doi.org/10.1016/j.buildenv.2020.107222>
112. **Sailor, D.J.**, J. Anand, and L. Kalkstein, 2020. “Potential Overall Heat Exposure Reduction Associated with Implementation of Heat Mitigation Strategies in Los Angeles,” *International Journal of Biometeorology*. <https://doi.org/10.1007/s00484-020-01954-5>

111. Hoenhe, C.G., M.V. Chester, **D.J. Sailor**, D.A. King, 2020. “Urban heat implications from parking, roads, and cars: a case study of metro Phoenix,” *Sustainable and Resilient Infrastructure*, 1-19. <https://doi.org/10.1080/23789689.2020.1773013>.
110. Kalkstein, L., F. Klink, K. Shickman, S. Schneider, M. Egolf, and **D.J. Sailor**, 2020. The potential impact of cool roof technologies upon heat wave meteorology and human health outcomes in Boston and Chicago,” In: S. Molleti and W. Rossiter, eds., *Roofing Research and Standards Development: 9th Volume*. (West Conshohocken, PA: ASTM International, 2020), <https://doi.org/10.1520/STP1621-EB>.
109. Brown^(ug), K.E., A. Baniassadi, J.V. Pham^(ug), **D.J. Sailor**, and P.E. Phelan, 2020. “Effects of rooftop photovoltaics on building cooling demand and sensible heat flux into the environment for an installation on a white roof,” *ASME Journal of Engineering for Sustainable Buildings and Cities*, 1, 021001-2. <https://doi.org/10.1115/1.4046399>
108. Baniassadi, A., **D.J. Sailor**, C.R. O’Lenick, P.J. Crank, A.T. Reddy, M.M. Chester, and O.V. Wilhelmi, 2020. “Effectiveness of Mechanical Air Conditioning as a Protective Factor Against Indoor Exposure to Heat,” *ASME J. of Engineering for Sustainable Buildings and Cities*, online 2019, 011005-10. <https://doi.org/10.1115/1.4045678>
107. Heusinger, J., A.M. Broadbent, D.J. Sailor, and M. Georgescu, 2020. “Introduction, evaluation, and application of an energy balance model for photovoltaic modules, *Solar Energy*, 195, 382-395. <https://doi.org/10.1016/j.solener.2019.11.041>
106. Galal, O., H. Mahmoud, **D.J. Sailor**, 2019. “Impact of Evolving Building Morphology on Microclimate in a Hot Arid Climate,” *Sustainable Cities and Society*, available online 24, Dec, 2019. <https://doi.org/10.1016/j.scs.2019.102011>.
105. AlKhaled, S., **D.J. Sailor**, A. Brazel, C. Cheng, and P. Coseo, 2019. “Between Aspiration and Actuality: A Systematic Review of Morphological Heat Mitigation Strategies in Hot Urban Deserts,” *Urban Climate*, 31. <https://doi.org/10.1016/j.uclim.2019.100570>
104. Heusinger, J., and **D.J. Sailor**, 2019. Heat and cold roses of U.S. cities: a new tool for optimizing urban climate, *Sustainable Cities and Society*, 51,101777. <https://doi.org/10.1016/j.scs.2019.101777>
103. Pham^(ug), J.V., A. Baniassadi, K.E. Brown^(ug), J. Heusinger, and **D.J. Sailor**, 2019. Comparing photovoltaic and reflective shade surfaces in the urban environment: effects on surface sensible heat flux and pedestrian thermal comfort. *Urban Climate*, 29,100500. <https://doi.org/10.1016/j.uclim.2019.100500>
102. Baniassadi, A., **D.J. Sailor**, and G. Ban-Weiss, 2019. Potential energy and climate benefits of super-cool materials as a rooftop strategy, *Urban Climate*, 29 100495. <https://doi.org/10.1016/j.uclim.2019.100495>
101. Broadbent, A.M., E.S. Krayenhoff, M. Georgescu, and **D.J. Sailor**, 2019. The observed effects of utility-scale photovoltaics on near-surface air temperature and energy balance. *J. Applied Meteorology and Climatology* 58(5), 989-1006. <https://doi.org/10.1175/JAMC-D-18-0271.1>
100. Baniassadi, A., **D.J. Sailor**, E.S. Krayenhoff, A.M. Broadbent, and M. Georgescu, 2019. Passive survivability of buildings under changing urban climates across eight US cities. *Environmental Research Letters*, 14 074028. <https://doi.org/10.1088/1748-9326/ab28ba>
99. Baniassadi, A., **D.J. Sailor**, and H.J. Bryan, 2019. Effectiveness of phase change materials for improving the resiliency of residential buildings to extreme thermal conditions. *Solar Energy*, 188, 190-199. <https://doi.org/10.1016/j.solener.2019.06.011>
98. Li, Y., J. Zhang, **D.J. Sailor**, and G.A. Ban-Weiss, 2019. Effects of urbanization on regional meteorology and air quality in Southern California. *Atmos. Chem. Phys.*, 19, 4439–4457. <https://doi.org/10.5194/acp-19-4439-2019>
97. **Sailor, D.J.**, A. Baniassadi, C.R. O’Lenick, O.V. Wilhelmi, 2019. The growing threat of heat disasters. *Environmental Research Letters*, available online. <https://doi.org/10.1088/1748-9326/ab0bb9>

96. O'Lenick, C.R., O.V. Wilhelmi, R. Michael, M.H. Hayden, A. Baniassadi, C. Wiedinmyer, A.J. Monaghan P.J. Crank, and **D.J. Sailor**, 2019. Urban heat and air pollution: A framework for integrating population vulnerability and indoor exposure in health risk analyses. *Science of the Total Environment*, **660**, 715-723. <https://doi.org/10.1016/j.scitotenv.2019.01.002>
95. Taleghani, M., P. Crank, A. Mohegh, **D.J. Sailor**, and G.A. Ban-Weiss, 2019. The impact of heat mitigation strategies on the energy balance of a neighborhood in Los Angeles. *Solar Energy*, **177**, 604-611. <https://doi.org/10.1016/j.solener.2018.11.041>
94. Gurney, K. R., P. Romero-Lankao, S. Pincetl, M. Betsill, M. Chester, F. Creutzig, K. Davis, R. Duren, G. Franco, S. Hughes, L. R. Hutyrá, C. Kennedy, R. Krueger, P. J. Marcotullio, D. Pataki, **D. Sailor**, and K. V. R. Schäfer, 2018: Chapter 4: Understanding urban carbon fluxes. In Second State of the Carbon Cycle Report (SOCCR2): A Sustained Assessment Report [Cavallaro, N., G. Shrestha, R. Birdsey, M. A. Mayes, R. G. Najjar, S. C. Reed, P. Romero-Lankao, and Z. Zhu (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 189-228, <https://doi.org/10.7930/SOCCR2.2018.Ch4>
93. Santamouris, M., G. Ban-Weiss, P. Osmond, R. Paolini, A. Synnefa, C. Cartalis, A. Muscio, M. Zinzi, T.E. Morakinyo, E. Ng, Z. Tan, H. Takebayashi, **D. Sailor**, P. Crank, H. Taha, A.L. Pisello, F Rossi, J. Zhang, D. Kolokotsa, 2018. Progress in urban greenery mitigation science — Assessment methodologies advanced technologies and impact on cities. *J. Civil Engineering and Management*, **24**(8), 638-671. <https://doi.org/10.3846/jcem.2018.6604>
92. Crank, P.J., **D.J. Sailor**, G. Ban-Weiss, and M. Taleghani, 2018. Evaluating the ENVI-met microscale model for suitability in analysis of targeted urban heat mitigation strategies. *Urban Climate*, **26**, 188-197. <https://doi.org/10.1016/j.uclim.2018.09.002>
91. Baniassadi, A., **D.J. Sailor**, P.J. Crank, and G.A. Ban-Weiss, 2018. Direct and indirect effects of high-albedo roofs on energy consumption and thermal comfort of residential buildings. *Energy and Buildings*, **178** (1) 71-83. <https://doi.org/10.1016/j.enbuild.2018.08.048>
90. Alajmi, A., **D.J. Sailor**, and S. Rodriguez, 2018. Transforming a passive house into a net-zero energy house: a case study in the pacific northwest of the US. *Energy Conversion & Management*, **172**, 39-49. <https://doi.org/10.1016/j.enconman.2018.06.107>
89. Schultz, I., **D.J. Sailor**, and O. Starry, 2018. Effects of substrate depth and precipitation characteristics on stormwater retention by two green roofs in Portland, OR. *J. Hydrology, Regional Studies*, **18**, 110-118. <https://doi.org/10.1016/j.ejrh.2018.06.008>
88. Baniassadi, A., and **D.J. Sailor**, 2018. Energy efficiency vs resiliency to extreme heat and power outages: The role of evolving building energy codes. *Building and Environment*, **139**, 96-94. <https://doi.org/10.1016/j.buildenv.2018.05.024>
87. Baniassadi, A., Heusinger, J., and **D.J. Sailor**, 2018. Building energy savings potential of a hybrid roofing system involving high albedo, moisture retaining foam materials. *Energy and Buildings*, **169**, 283-294. <https://doi.org/10.1016/j.enbuild.2018.04.004>
86. Zhao, Q., E. Wentz, and **D.J. Sailor**, 2018. Impact of tree locations and arrangements on outdoor microclimates and human thermal comfort in an urban residential environment. *Urban Forestry and Urban Greening*, **32**, 81-91. <https://doi.org/10.1016/j.ufug.2018.03.022>
85. Abbass, O., **D.J. Sailor**, and E. Gall, 2018. Ozone removal efficiency and surface analysis of green and white roof HVAC filters. *Building and Environment*, **136**, 118-127. <https://doi.org/10.1016/j.buildenv.2018.03.042>
84. Baniassadi, A., and **D.J. Sailor**, 2018. “Synergies and trade-offs between energy efficiency and resiliency to extreme heat - a case study. *Building and Environment*, **132**, 263-272. <https://doi.org/10.1016/j.buildenv.2018.01.037>
83. Heusinger, J., **D.J. Sailor**, and S. Weber, 2018. Modeling the reduction of urban excess heat by green roofs with respect to different irrigation scenarios. *Building and Environment*, **131**, 174-183. <https://doi.org/10.1016/j.buildenv.2018.01.003>

82. Hondula, D.M., R.C Balling, R. Andrade, E.S. Krayenhoff, A. Middel, A. Urban., M. Georgescu, and **D.J. Sailor**, 2017. Biometeorology for cities. *International Journal of Biometeorology*, **51**, 59-69. <https://doi.org/10.1007/s00484-017-1412-3>
81. Abbass, O.A., **D.J. Sailor**, and E.T. Gall, 2017. Effectiveness of indoor plants for passive removal of indoor ozone. *Building and Environment*, **119**, 62-70. **Best Paper Award 2017; Editor's Choice list 2018**. <https://doi.org/10.1016/j.buildenv.2017.04.007>
80. Abbass, O.A., **D.J. Sailor**, E.T. Gall, 2017. Effect of fiber material on ozone removal and carbonyl production from carpets. *Atmospheric Environment*, **148**, 42-48. <https://doi.org/10.1016/j.atmosenv.2016.10.034>
79. **Sailor, D.J.**, M. Shepherd, S. Sheridan, B. Stone, L. Kalkstein, A. Russell, J. Vargo, and T. Andersen, T., 2016. Improving heat-related health outcomes in an urban environment with science-based policy. *Sustainability*, **8** (10), 1-13. <https://doi.org/10.3390/su8101015>
78. Ogaili, H. and **D.J. Sailor**, 2016. Measuring the effect of vegetated roofs on the performance of photovoltaic panels in a combined system. *Solar Energy Engineering*, **138**, 1-8. <https://doi.org/10.1115/1.4034743>
77. Makido, Y., V. Shandas, F. Ferwati, and **D.J. Sailor**, 2016. Daytime variation of urban heat islands: The case study of Doha, Qatar. *Climate*, **4**, (32). www.mdpi.com/journal/climate, <https://doi.org/10.3390/cli4020032>
76. Park, C., G. Schade, N.D. Werner, **D.J. Sailor**, and Cheol-hee Kim, 2016. Comparative estimates of anthropogenic heat emission in relation to surface energy balance of a subtropical urban neighborhood. *Atmospheric Environment*, **126**, 2016, 182–191. <https://doi.org/10.1016/j.atmosenv.2015.11.038>
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74. Taleghani, M., **D.J. Sailor**, and G. Ban-Weiss, 2016. Micrometeorological simulations to predict the impacts of heat mitigation strategies on pedestrian thermal comfort in a Los Angeles neighborhood. *Environmental Research Letters*, **11** (2). <https://doi.org/10.1088/1748-9326/11/2/024003>
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72. **Sailor, D.J.**, M. Georgescu, J. Milne^(ug), and M. Hart, 2015. Development of a national anthropogenic heating database with an extrapolation for international cities. *Atmospheric Environment*, **118**, 7-18. <https://doi.org/10.1016/j.atmosenv.2015.07.016>
71. Taleghani, M., M. Tenpierik, A. van den Dobbela, and **D.J. Sailor**, 2014. Heat mitigation strategies in winter and summer: Field measurements in temperate climates. *Building and Environment*, **81**, 309-319. <https://doi.org/10.1016/j.buildenv.2014.07.010>
70. Lee, S-H., McKeen, S.A., and **D.J. Sailor**, 2014. A regression approach for estimation of anthropogenic heat flux based on a bottom-up air pollutant emission database. *Atmospheric Environment*, **95**, 629-633. <https://doi.org/10.1016/j.atmosenv.2014.07.009>
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66. Taleghani, M., M. Tenpierik, A. van den Dobbela, **Sailor, D.J.**, 2014. Heat in courtyards: A validated and calibrated parametric study of heat mitigation strategies for urban courtyards in the Netherlands. *Solar Energy*, **103**, 108-124. <https://doi.org/10.1016/j.solener.2014.01.033>

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6. Taha, H., **D. Sailor**, and H. Akbari, 1992. High-albedo materials for reducing building cooling energy use. Presented at the 1st CIEE R&D Conference, August, San Diego CA. Also Lawrence Berkeley National Laboratory Report LBL-31721, Berkeley, CA. <https://doi.org/10.2172/10178958>
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BOOK/MONOGRAPH CHAPTERS:

4. **Sailor, D.J.**, 2014. "A Holistic View of the Effects of Urban Heat Island Mitigation," book chapter, in *Low Carbon Cities: Transforming Urban Systems*, Routledge, London, edited by Steffen Lehmann.
3. **Sailor, D.J.**, 2013. "Energy Buildings and the Urban Environment", Chapter 3.12 in *Climate Vulnerability*, 1st edition, Edited by R. Pielke, Sr., Elsevier, pp. 167-182.
2. IPCC, 2007. Working Group II, Climate Change Impacts, Adaptation, and Vulnerability, Fourth Assessment Report, Chapter 14: North America, Intergovernmental Panel on Climate Change, Coordinating Lead Authors: C. B. Field (USA), L. D. Mortsch (Canada); Lead Authors: M. Brklacich (Canada), D. Forbes (Canada), P. Kovacs (Canada), J. Patz (USA), S. Running (USA), M. Scott (USA); Contributing Authors: J. Andrey (Canada), A. Hamlet, (USA), E. Mills (USA), S. Mills (USA), **D.J. Sailor** (USA), D. Scott (Canada), W. Solecki (USA), 88pp.
1. Ning, Z.H. and K.K. Abdollahi, 1999. *Global Climate Change and its Consequences on the Gulf Coast Region of the United States*, ISBN 1-930129-60-2, Lead contributors: **D.J. Sailor** (with others).

INVITED PRESENTATIONS, WEBINARS AND KEYNOTES:

68. **Sailor, D.J.**, 2021. Invited Distinguished Speaker series, Department of Mechanical Engineering at the Colorado School of Mines, Title TBD, 23 March (virtual) Golden Colorado.
67. **Sailor, D.J.**, 2020. Invited Keynote presentation, 54th Architectural Science Association (ASA) conference, "Heat Resilience of Residential Buildings in a Changing Climate", (virtual) Auckland, NEW ZEALAND, 25-28 November.
66. Sailor, D.J., 2020. Invited presentation, USC School of Architecture, "Urban Heat Mitigation: bridging research, design, and urban environmental planning", 18 November (virtual) Los Angeles CA USA.
66. **Sailor, D.J.**, 2020. Invited presentation at 3M Tech Forum. "Quantifying the benefits of recent innovations in products for cooling the urban environment," 30, Oct., (virtual) Minneapolis USA.
65. **Sailor, D.J.**, 2020. Invited presentation to the Cool Building Solutions Collaborative, LBNL. "Benefits of innovative radiative cooling technologies for buildings and the urban environment, Sep 30.
64. **Sailor, D.J.**, 2020. Invited panelist: MIT InnoTherm, International Colloquia on Thermal Innovations, Topic: Passive daytime radiative cooling materials with Ronggui Yang, Yuan Yang, and Junichiro Shiomi, May 6.
63. **Sailor, D.J.**, 2019. Invited keynote presentation: "Moving beyond UHI: is the urban heat island concept too limiting to solve urban climate challenges?", at the 5th International Conference on Countermeasures to Urban Heat Islands (IC2UHI), Hyderabad INDIA, Dec 2-4.
62. **Sailor, D.J.**, 2019. Panelist: UHI-countermeasure technology gaps panel at IC2UHI 2019, Hyderabad INDIA, Dec 2-4.
61. **Sailor, D.J.**, 2019. Invited presentation at the University of New South Wales, "Implications of urban photovoltaic energy production for the local urban climate and building thermal performance", Sydney AUSTRALIA, Dec 6.
60. **Sailor, D.J.**, 2019. Invited presentation to the University of Adelaide Heat & Habitat in Cities Symposium, "Using microscale and mesoscale atmospheric models to explore the spatial footprint of heat mitigation strategies." Adelaide AUSTRALIA, Dec 9-10, 2019.

59. **Sailor, D.J.**, 2019. Invited workshop participant (sustainable infrastructure), 2nd NSF Sustainable Smart Cities International Workshop, Cairo, EGYPT. Organized by University of Alabama, Birmingham and Alexandria University, Egypt. June 11-13.
58. **Sailor, D.J.**, 2019. “Urban climate mitigation efforts for local and global benefit,” invited presentation to the Board of the Edwards Mother Earth Foundation (EMEF), Tempe, AZ, Jan 19.
57. **Sailor, D.J.**, 2018. “Heat resiliency of residential buildings during extreme events,” invited presentation to the Building, Civil and Environmental Engineering Department at Concordia University, Oct. 25.
56. **Sailor, D.J.**, 2018. “Technology, urban climate, and the future of urban built environments,” invited presentation at the Panel on Urbanization, Energy, and the Built Environment, National Renewable Energy Laboratory, Aug. 14.
55. **Sailor, D.J.**, 2018. “Urban climate modeling methodology,” presented as part of Los Angeles Urban Cooling Collaborative (LAUCC) Webinar - NUCFAC LA County Modeling Results, organized and presented by TreePeople environmental nonprofit, March 28, ~50 participants, archived at treepeople.org/urbancooling.
54. **Sailor, D.J.**, 2017. “Interactions between urban infrastructure and local climates, presented as an invited instructor at the Urban Climate Summer School at the University of Bucharest, ROMANIA, Aug 22.
53. **Sailor, D.J.**, 2017. “Exploring the Role of Buildings in the Urban Climate, invited presentation at the CAP-LTER All-Scientists Meeting, January 13.
52. **Sailor, D.J.**, 2016. “Walmart Hayden Meadows Case Study”, invited panelist for ICSC CenterBuild Conference, Scottsdale, AZ, Dec 1., 2016.
51. **Sailor, D.J.**, 2016. “Urban Climate Research: understanding the problems leads to better solutions,” invited presentation for the Urban Climate Institute, hosted by University of Minnesota as part of the NSF-funded Urban Heat Island Research Coordination Network, July 12-13.
50. **Sailor, D.J.**, 2016. “Indoor-outdoor atmospheric coupling and exposure risk to extreme heat and poor air quality during heat waves”, invited presentation for the School of Sustainable Engineering and Built Environment, ASU, Oct 25, 2016.
49. **Sailor, D.J.**, 2016 “Urban Heat Islands: understanding causes and concerns leads to better solutions”, invited presentation at the Urban Heat Island & Extreme Heat workshop hosted by Climate Resolve and Mayor Eric Garcetti’s Office of Sustainability and Chief Resilience Officer, July 7, 2016.
48. **Sailor, D.J.**, 2015 “The Role of Anthropogenic Heat and Moisture Emissions in the Urban Climate System”, invited presentation to Centre de Thermique de Lyon (CETHIL), Universite Claude Bernard Lyon, July 17, 2015.
47. **Sailor, D.J.**, 2015 “Improving representation of anthropogenic heating for atmospheric models”, presented at the 3rd meeting of the Urban Climate Institute (NSF-RCN), Athens, GA, July 6, 2015.
46. **Sailor, D.J.**, 2015 “Understanding Urban Heat as a first Step toward Mitigating its adverse Health Consequences,” Invited panel presentation at the 7th Annual Northwest Environmental Health Conference: Bridging Research, Practice, and Policy. Portland, OR April 17.
45. **Sailor, D.J.**, 2015. “The Role of Anthropogenic Heat and Moisture Emissions in the Urban Climate System”, seminar in the Department of Building, Civil, and Environmental Engineering, Concordia University, March 30.
44. **Sailor, D.J.**, 2015. “Buildings and the Urban Climate.” Seminar at Oak Ridge National Laboratory, Oak Ridge, TN, February.
43. **Sailor, D.J.**, 2015. “Understanding Urban Climate Challenges, Drivers and Solutions: from anthropogenic heating to urban surface modifications.” Seminar at the School of Geophysical Studies and Urban Planning at Arizona State University, Phoenix, AZ, February.
42. **Sailor, D.J.**, 2015. Invited Panelist. Sustainable Cities Network Special Session at the American Meteorological Society Annual Meeting, Phoenix, AZ, January.

41. **Sailor, D.J.**, 2014. “Mitigating Urban Heat: Are there any simple solutions?”, a seminar presented to the Physics Department at Portland State University, April 14.
40. **Sailor, D.J.**, 2014. “Heat Island Mitigation in the Broader Context of Urban Sustainability,” presented at Arizona State University, Global Institute of Sustainability, April 2.
39. **Sailor, D.J.**, 2014. “Designing Built Environments for Improved Urban Climate Outcomes”, invited Keynote presented at the US-Korea Conference of the Korean-American Scientists and Engineers Association, UKC2014, , San Francisco, Aug 8.
38. **Sailor, D.J.**, 2013. “Urban Heat Island Mitigation”, invited presentation at the NSF RCN Workshop on Urban Climate, St. Paul, MN, July 31.
37. **Sailor, D.J.**, 2012. “Exploring the energy and environmental impacts of sustainable roofing options,” presented at the University of La Rochelle, Department of Civil and Mechanical Engineering, La Rochelle, France, June 27, 2012.
36. **Sailor, D.J.**, 2012. “City scale integrated sustainable energy technologies,” invited presentation and panelist at the ASME Integrated and Sustainable Building Equipment and Systems Roundtable, New York, May 4.
35. **Sailor, D.J.**, 2012. “Causes, Effects, and Mitigation Opportunities for the Urban Heat Island,” invited presentation at Drexel’s Academy of Natural Sciences bicentennial sustainability series, April 17.
34. **Sailor, D.J.**, 2012. “Proving Passive House Performance- two case studies from Portland Oregon”, invited presentation and panelist for the Passive House NorthWest conference, March 2, Portland.
33. **Sailor, D.J.**, 2012. “Green Building and Urban Heat Island Mitigation: a new look at old sustainability strategies,” a webinar presented for Climate Communities for an audience of 100+ urban planners and city sustainability directors, Jan. 26.
32. **Sailor, D.J.**, 2011. "Energy and Weather Interactions in the Built Environment - exploring options for urban energy sustainability," invited presentation at the International Workshop on Urban Weather and Climate: Observations and Modeling, co-sponsored by the Chinese Meteorological Society and the American Meteorological Society, Beijing, 12-15 July.
31. **Sailor, D.J.**, 2011. “Our Impact on the Indoor and Outdoor Atmospheric Environments”, invited presentation at the Town Hall Meeting: *Impact of Human Occupancy at the 2011 AMS Annual Convention*, held at the American Meteorological Society’s Annual Meeting, Seattle, January.
30. **Sailor, D.J.**, Wamser, C., and Rosenstiel, T., 2010 “Solar PV and Green Roof Integration – Performance and Design Considerations,” an invited presentation at the 8th Annual Green Roof & Wall Conference – Cities Alive, Vancouver Canada, December.
29. **Sailor, D.J.**, 2010. “Energy Sustainability in the Built Environment,” invited plenary presentation for the American Society of Mechanical Engineers (ASME) Energy Sustainability Conference, 2010, Phoenix, May 20. Room capacity 1800, approximately 900 in audience.
28. **Sailor, D.J.**, 2010. Invited Panelist – “Future Directions on Greening the Green Roof System for Climate Change – Embodied Energy, Renewables, Thermal Efficiency, and Sequestration,” with David Tilley and Paul Mankiewicz. An Expert Panel Discussion at the 8th Annual Green Roof & Wall Conference – Cities Alive, Vancouver Canada, December.
27. **Sailor, D.J.**, 2010. “Energy Performance of Green Roofs”, Webinar presentation for the US EPA Heat Island Reduction Initiative Program. Approximately 200 attendees. June 8.
26. **Sailor, D.J.**, 2010. “Energy Performance of Ecoroofs: the role of the roof in affecting building energy and the urban atmospheric environment”, Featured Speaker, Ecoroof Portland, 2010, organized by Portland Bureau of Environmental Services, Portland, Oregon, March 12.
25. **Sailor, D.J.**, 2009. “Anthropogenic Heat and Moisture Emissions in the Urban Environment,” an invited plenary presentation at the 7th International Conference on the Urban Climate ICUC-7, Yokohama, Japan, June 29-July 3, 2009.
24. **Sailor, D.J.**, 2009. “The Green Building Research Laboratory: Providing resources and tools for improving the built environment”, invited presentation at the 2009 Forest Service Sustainable

- Operations Summit - Leading By Example: Toolkit for Success, October 27-29, 2009, Robert Duncan Plaza, Portland, Oregon.
23. **Sailor, D.J.**, 2009. “The Energy and Environmental Effects of Vegetated Rooftops”, presented as part of the Center for Urban Environmental Research and Education (CUERE) seminar series, University of Maryland, Baltimore County, 9 October.
 22. **Sailor, D.J.**, 2009. “Hot and Crowded: Engineering and Urban Design Solutions for a Rapidly Urbanizing World”, lecture presented as part of the Maseeh College of Engineering and Computer Science (MCECS) Alumni Lecture as part of Alumni Weekend, 7 October.
 21. **Sailor, D.J.**, 2009. “The Urban Heat Island”, an invited presentation at the Sustainability in the Urban Built Environment, part of the Summer Sustainability Series (summersustainabilityseries.org), Portland, OR, June 25.
 20. **Sailor, D.J.**, 2009. “Human response to, and impact on episodes of poor air quality and extreme heat”, an invited presentation as part of the Coupled Human And Natural Systems (CHANS) Symposium at the annual meeting of the International Association of Landscape Ecologists, April 12-16, Snowbird.
 19. **Sailor, D.J.**, 2008. “Measurements and Modelling of the Urban Heat Island Effect – the role of anthropogenic emissions,” invited presentation at the 2nd Earth Observation Workshop, Hong Kong Polytechnic University, May 20-21.
 18. **Sailor, D.J.**, 2008. “Energy and Urban Climate Benefits of Green Roofs”, invited presentation at the World Green Roof Congress, London, September 17-18.
 17. **Sailor, D.J.**, 2007. “Green Roof Research at Portland State University,” invited seminar at the Houston Advanced Research Center, Houston, Dec 6.
 16. **Sailor, D.J.**, 2007. “Feedback Mechanisms in the Urban Climate, Air Quality, and Human Response System,” invited seminar presented in conjunction with a workshop on Coupled Natural Human Systems, sponsored by the Ecosystems, Health, and Built Environment interdisciplinary research initiative at the University of Utah, Salt Lake City, Nov 30.
 15. **Sailor, D.J.**, 2007. “Heat Transfer Processes in the Urban Environment – The Urban Heat Island”, invited seminar presented to the Department of Mechanical and Aerospace Engineering, Arizona State University, Phoenix, Apr. 23.
 14. **Sailor, D.J.**, 2006. “The Urban Heat Island - Causes, effects, and potential for mitigation,” invited presentation at the Cooling our Communities Workshop, sponsored by ICLEI (Local Governments for Sustainability, www.iclei.org), Miami, Oct 30.
 13. **Sailor, D.J.**, 2006. “Mitigation of Urban Heat Islands – recent progress and future prospects”, invited presentation at the Sixth Symposium on the Urban Environment, American Meteorological Society, Atlanta, January.
 12. **Sailor, D.J.**, 2005. “Portland’s Homemade Weather – the urban heat island”, invited presentation as part of the Geography Department seminar series, Portland State University, Oct. 12.
 11. **Sailor, D.J.**, 2004. “Causes, Effects, and Mitigation of the Urban Heat Island,” invited presentation to the Portland City Club, Growth Management and Environment Committee, March 4.
 10. **Sailor, D.J.**, 2002. “Developing Improved Load Forecasting Tools,” invited presentation to Southern Company Load Forecasting group, Birmingham, August 20.
 9. **Sailor, D.J.**, 2002. “Urban Heat Island Research at Tulane University”, invited presentation to the Houston Galveston Area Council (HGAC), Cool Communities Committee, July 11.
 8. **Sailor, D.J.**, 2002. “Atmospheric Modeling of the Urban Environment: Applications in Electric Utility Load Forecasting,” invited presentation to the Mechanical Engineering Department, Portland State University, Portland, Apr. 30.
 7. **Sailor, D.J.**, 2002. “Urban Transportation Systems and the Environment: Local and Global Consequences,” invited presentation as panelist for *Gridlock – A forum on regional transport and sustainable development*, Sponsored by the League of Women Voters, Metropolitan Neighbors, the Sierra Club, and Tulane University, Feb 26

6. **Sailor, D.J.**, 2002. "Improving Electric Utility Load Forecasting through Atmospheric Modeling Enhancements," invited presentation to the Mechanical Engineering Department, Vanderbilt University, Nashville, Feb 25.
5. **Sailor, D.J.**, 2002. "The Urban Heat Island Phenomenon: Causes, Impacts, and Potential for Mitigation," invited presentation to the EPA's 5th State and Local Climate Change Partners' Conference, Annapolis, Nov. 21.
4. **Sailor, D.J.**, 2002. "Urban Heat Islands: Opportunities and Challenges for Mitigation and Adaptation", invited Plenary presentation, North American Urban Heat Island Summit, Toronto, May 1.
3. **Sailor, D.J.**, 2000. "Regional Climate Modeling for Climate Change Impact Assessment," invited keynote address to the 11th International Global Warming Conference, Boston, May 2000
2. **Sailor, D.J.**, 2000. "Regional Climate Change Issues and the Role of NIGEC," invited presentation to the Department of Energy's Global Change Education Program summer student orientation, June.
1. **Sailor, D.J.**, 1996. "Energy and Climate Interactions", invited talk, Lawrence Berkeley National Laboratory, Energy and Environment Division, May 1996.

CONFERENCE AND OTHER PRESENTATIONS:

105. Wright, M.K., P.J. Crank, A. Middel, D.M. Hondula, and **D.J. Sailor**, 2021. "A comprehensive assessment of the thermal environment of two PASS Neighborhoods," to be presented at the 101st AMS Annual Meeting and 12th Conference on Environment and Health, Jan 11.
104. **Sailor, D.J.**, 2020. Heat resilience of residential buildings under current and future urban climates, Mechanical and Aerospace Engineering Graduate Seminar, SEMTE, ASU, February 28.
103. **Sailor, D.J.**, J. Anand, and A. Baniassadi, 2020. "Optimizing Passive Daytime Radiative Cooling Technologies for Building Energy Savings and Urban Heat Mitigation," presented in the 100th Annual Meeting of the American Meteorological Society, Boston, Jan..
102. Crank, P.J., D.M. Hondula, and **D.J. Sailor**, 2020. "Mental Health and Heat: Risk and Mitigation in Arid and Urban Climates," presented in the 100th Annual Meeting of the American Meteorological Society, Boston, Jan.
101. Baniassadi, A., H.W. Samuelson, **D.J. Sailor**, C.R. O'lenick, O.V. Wilhelmi, and A.N. Lin. 2019. Indoor Exposure to Heat in the Age of Mechanical Air Conditioning. Presented at the 2019 Building Performance Analysis Conference, Denver, Colorado, September 25-27.
100. Y. Li, G.A. Ban-Weiss, **D. Sailor**, and J. Zhang, 2019. "Investigation of Interannual Trends in the Surface Urban Heat Island in Los Angeles County and its Association with Real-world Land Surface Changes Using Observations, Models, and Machine Learning," presented at the Fall 2019 Meeting of the American Geophysical Union (AGU), San Francisco, Dec 9-13.
99. **Sailor, D.J.**, P.J. Crank, J. Heusinger, and M. Hara, 2019. "Extent vs. Impact: A modeling study of Targeted Heat Mitigation Strategies," presented at the 5th International Conference on Countermeasures to Urban Heat Islands (IC2UHI), Hyderabad INDIA, Dec 2-4.
98. **Sailor, D.J.**, 2019. "Modeling across scales to explore efficacy of heat mitigation strategies," presented at the Hot Cities 2050 workshop as part of an NSF ERC Planning Grant, Atlanta, January 9.
97. Heusinger, J., P. Crank, and **D.J. Sailor**, 2019. "Feasibility study on integrating public transport vehicles for heat mapping purposes," presented (PJC) at AMS 99th Annual Meeting, Phoenix, AZ, January 9.
96. Baniassadi, A., **D.J. Sailor**, C.R. O'Lenick, and O.V. Wilhelmi, 2018. "The growing threat of heat disasters", poster presentation at the Syracuse University, College of Engineering, Student Poster Competition, Sept.
95. Krayenhoff, S., A. Broadbent, E. Erell, L. Zhao, M. Georgescu, J.A. Voogt, and A. Middel, A. Martilli, and **D.J. Sailor**, 2018.. "Urban cooling from heat mitigation strategies: Systematic review of the numerical modeling literature," poster presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug.

94. **Sailor, D.J.**, A. Baniassadi, 2018. “Resiliency of Residential Buildings During Extreme Weather Events – Case Study of Power Outages During Hurricane Harvey in Houston, TX,” oral presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug.
93. Pham, J., A. Baniassadi, and **D.J. Sailor**, 2018. “Sensible Heat Flux of Photovoltaic Shade Surfaces in the Urban Environment,” poster presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug.
92. Li, Y, Zhang, J., **D.J. Sailor**, and G. Ban-Weiss, 2018. “The Impacts of Urbanization on Meteorology and Air Quality in Southern California,” oral presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug.
91. Baniassadi, A., **D.J. Sailor**, and G. Ban-Weiss, 2018. “Direct and indirect effects of high-albedo roofs on energy consumption and thermal comfort of residential buildings,” oral presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug.
90. Crank, P.J., C. O’lenick, O. Wilhelmi, and **D.J. Sailor**, 2018. “Behaviors and risk perceptions of elderly populations in the face of extreme heat and poor air quality--a comparison across three sunbelt cities”, oral presentation at the International Conference on Urban Climate (ICUC-10), New York City, Aug..
89. Baniassadi, A., and **D.J. Sailor**, 2018. “Indoor air quality and thermal comfort in assisted living facilities – Case study of Houston, TX”, presentation at 7th International Building Physics Conference (IBPC), Syracuse NY, Sep 23-26.
88. **Sailor, D.J.**, “Atmospheric Modeling”, guest lecture in MAT 451, Mathematical Modeling, for Professor Karen Watanabe, School of Mathematical and Natural Sciences, ASU, April 9, 2018.
87. **Sailor, D.J.**, 2018. “Urban climate and anthropogenic emissions of heat and moisture,” presented in Hydrosystems Seminar (CEE591) for Professor Enrique Vivoni, Civil and Environmental Engineering, ASU, March 14.
88. **Sailor, D.J.**, 2018. “Cities Research at ASU in Dense Urban Areas”, table-setting presentation for the ASURE workshop on Dense Urban Areas, Feb 28.
87. **Sailor, D.J.**, 2017. “Solving the problem of extreme heat in Phoenix and beyond”, presented to (approx. 45) 7th and 8th grade gifted students from Laveen Elementary School District, as part of a visit to ASU to learn about Geography, Nov. 27.
86. Cassandra O’lenick, R. Michael, M. Hayden, D. Banerjee, V. Nepal, A. Monaghan, C. Wiedinmyer, **D. Sailor** and O. Wilhelmi, 2017. “Indoor and outdoor ozone and extreme heat: Novel methods to characterize household-level social vulnerability among the elderly in Houston, Texas,” submitted for presentation at the American Public Health Association Annual Meeting & Expo, Atlanta, Nov. 4-8.
85. **Sailor, D.J.**, 2017. “Exploring the role of buildings in the urban climate,” presented at the annual CAP-LTER Scientists meeting, Jan. 13, Phoenix AZ.
84. Crank, P., **D.J. Sailor**, M. Taleghani, and G. Ban-Weiss, 2017. “Simulating the efficacy of targeted urban heat mitigation for vulnerable populations, presented at the 13th Symposium of the Urban Environment, 97th Annual Meeting of the American Meteorological Association, Jan. 23-26, Seattle.
83. **Sailor, D.J.**, and P. Crank, 2017. “Spatial and temporal effects of flood irrigation on neighborhood-scale thermal environments,” presented at the 13th Symposium of the Urban Environment, 97th Annual Meeting of the American Meteorological Association, Jan. 23-26, Seattle.
82. Makido, Y., V. Shandas, S. Ferwati, D. Botham, and **D.J. Sailor**, 2015. “Exploring the Spatial and Temporal Variation of Air Temperature in the Extreme Desert Climate of Doha, Qatar”, presented at the 9th International Conference on Urban Climate (ICUC-9), Lyon, July 22.
81. **Sailor, D.J.**, H. Hu, O. Wilhelmi, and D. Banerjee, 2015. “Indoor-outdoor environmental coupling and exposure risk to extreme heat and poor air quality during heat waves”, presented at the 9th International Conference on Urban Climate, Lyon (ICUC-9), July 22.
80. Makido, Y., V. Shandas, **D.J. Sailor**, and M. Salim Ferwati, 2015. Landscape characterization of urban heat islands using land cover and vehicle traverses: a case study of Doha, Qatar, presented at IALE World Congress, Portland OR, July 5-10.

79. Ferwati, M. Salim, V. Shandas, **D.J. Sailor**, and Y. Makido, 2015. An Approach to Resilient Land Cover Strategies for Future Urban Development, presented (by S.F.) at the 8th International Conference on Planning and Design, May.
78. **Sailor, D.J.**, “Engineering Solutions to Mitigate Urban Heat”, 2014. Guest lecture presentation to CE407/507 Sustainability in Civil and Environmental Engineering, Portland State University, May 20.
77. **Sailor, D.J.**, “Mitigating Urban Heat”, 2014. Guest lecture presentation to EMS 410/510 Climate Change: Impact and Research, Portland State University, April 28.
76. Milne, J.M., M. Georgescu, **D.J. Sailor**, and M. Hart, 2014. “Developing anthropogenic heating profiles for urban areas across the United States, presented (by Milne) at the Sixteenth Annual Poster Symposium of the Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER) project, January.
75. Botham, D., T. Hoang, R.B. Cal, and **D.J. Sailor**, 2014. “Evaluating the Thermal Footprint of Rooftop Heat Island Mitigation Strategies,” presented (by Botham) at the 11th Symposium on the Urban Environment (as part of the 94th AMS annual meeting), Feb. 3.
74. Hart, M., **D.J. Sailor**, and C. Chi Shing Cheung, 2013. “Developing Typical Meteorological Year (TMY) data sets for predicting future building energy consumption within a city,” presented (by Hart) at the 19th Annual National Conference of the Australian Meteorological and Oceanographic Society, Melbourne, Feb 11-13.
73. **Sailor, D.J.**, 2012, “Energy and Environmental Effects of Green Roofs: why context matters”, presented at NASA’s Enabling Sustainable Space Exploration workshop, session on Quantification of Green Roofs’ Contributions to Building and Community Performance:, Greenbelt, MD, Dec. 4-7.
72. **Sailor, D.J.**, E. Erell, D. Kang, and D. Botham, 2012. “Building Energy Use Implications of Ground-Level Albedo Modification,” presented (by Sailor) at the 8th International Conference on Urban Climate (ICUC-8), Dublin, Aug 5-10.
71. Gibson, C., and **D.J. Sailor**, 2012. “A Backwards Lagrangian Particle Dispersion Model for Sensor Footprint Estimation in a 3D Heterogeneous Domain,” presented (by Gibson) at the 8th International Conference on Urban Climate (ICUC-8), Dublin, Aug 5-10.
70. Botham, D., and **D.J. Sailor**, 2012. “Unanticipated Effects of Sustainable Building Practices,” presented (by Botham) at the 8th International Conference on Urban Climate (ICUC-8), Dublin, Aug 5-10.
69. **Sailor, D.J.**, T.B., Elley, and M. Gibson, 2012. “Exploring the Building Energy Impacts of Green Roof Design Decisions – A modeling study of buildings in 4 different climates”, presented (by Sailor) at the Building Enclosures and Sustainable Technologies conference (BEST-3), Atlanta, April 2-4.
68. McConnell, W.J., J.D.A. Millington, N.J. Reo, L.A. Baker, N. Brozović, J. Fragoso, D.S. Holland, T.A. Kohler, H.D.G. Maschner, M. Monticino, G. Podestá, R.G. Pontius Jr., C.L. Redman, **D.J. Sailor**, G. Urquhart, and J. Liu, 2011. “Research on Coupled Human and Natural Systems (CHANS): Approach, Challenges and Strategies,” *Bulletin of the Ecological Society of America*, **92**, (2), 218-228, April 2011.
67. **Sailor, D.J.**, 2011. “The Role of Complex System Interactions in Assessing the Efficacy of Urban Heat Island Mitigation Strategies,” presented at the annual meeting of the Association of American Geographers, Seattle, April.
66. Sampson, D., and **D.J. Sailor**, 2011. “Coupled energy and water use in the Phoenix Metro Area as influenced by drought and climate change; empirical observations and simulation analyses.” Presented (by Sampson) at the CAP LTER 13th Annual All Scientists Meeting (Poster Symposium), January, 2011.
65. Bass, B., and **D.J. Sailor**, 2010 “Introduction to the new energy calculator,” presented (by Sailor) at the 8th Annual Green Roof & Wall Conference – Cities Alive, Vancouver Canada, December.
64. **Sailor, D.J.**, 2010. “An Energy Research Agenda for the Oregon Sustainability Center”, short presentation as part of the OSC panel at BestFest 2010, Portland, September.

63. **Sailor, D.J.**, B. Bass, G. Spolek, and S. Peck, 2010. “A green roof energy calculator”, presented at GreenBuild 2010 as part of USGBC’s “Research Gallery”, November, Chicago.
62. Scherba, A., S. Moody, and **D.J. Sailor**, 2010. “White , black, or green? The role of roof design in affecting the urban heat island”, P5.4, presented (by Scherba) at the 9th Symposium on the Urban Environment, American Meteorological Society, Keystone CO, August (Best Student Poster Award).
61. **Sailor, D.J.**, 2009. “GBRF Project Update: A Green Roof Energy Calculator”, presented at Greenbuild 2009, Phoenix, AZ, November 12.
60. Hart, M., **D.J. Sailor**, and C.T. Low, 2009. “An evaluation of intra-urban variability of near-surface urban air temperatures and humidity in Hong Kong”, presented (by Hart) at the International Conference on Urban Climate, Tokyo, June.
59. Hart, M., **D.J. Sailor**, and C.T. Low, 2009. “Spatial variability and exposure to the urban heat island (UHI) in Hong Kong”, presented (by Hart) at the Annual Meeting of the American Association of Geographers, Las Vegas, March.
58. **Sailor, D.J.** and A. Brooks, 2009. “Quantifying anthropogenic moisture emissions and their potential impact on the urban climate,” presented (by Sailor) at the 8th Symposium on the Urban Environment, held at the AMS annual meeting, Phoenix, AZ, January.
57. Hart, M., **D.J. Sailor**, and C.T. Low, 2009. “The urban heat island in Hong Kong: analyses of spatial variability and exposure,” presented (by Hart) at the 8th Symposium on the Urban Environment, held at the AMS annual meeting, Phoenix, AZ, January.
56. **Sailor, D.J.** (2009). “Sustainability in the Urban Built Environment: The Urban Heat Island”, presentation to delegates of an Iraqi Engineering Faculty delegation visit to Oregon, August 12.
55. **Sailor, D.J.**, 2009. “Building Envelope Technologies for Sustainable Buildings”, presented at the NSF CMMI Workshop on Multifunctional Materials and Distributed Renewable Energy for Sustainable Infrastructure, Honolulu, HI, June 22.
54. **Sailor, D.J.**, 2009. “Wind Power & Turbine Technology”, professional development class offered by the Oregon section of the American Society of Mechanical Engineers (presented morning portion of course on “Wind as a Resource”), June. 7.
53. CSB Grimmond, M Rot, TR Ok, YC Au, M Best, R Betts, G Carmichael, H Cleugh, W Dabberdt, R Emmanuel, E Freitas, K Fortuniak, S Hanna, P Klein, LS Kalkstein, CH Liu, A Nickson, D Pearlmutter, **D Sailor**, J Voogt, 2009. Climate and More Sustainable Cities: Climate Information for Improved Planning and Management of Cities (Producers/Capabilities Perspective), a white paper (18pp) presented by Grimmond at World Climate Conference 3 – Better Climate Information for a Better Future, World Meteorological Organization Geneva, Switzerland, 31 August – 4 September.
52. **Sailor, D.J.** and M. Smith, 2008. “Climate Change Implications for Wind Power Resources in the Northwest United States ,” presented (by Smith) at the 2nd International Conference on Energy Sustainability, ASME, Jacksonville, FL, August.
- 51*. Semenza. J.C., D.J. Wilson, J. Parra, B.D. Bontempo, M. Hart, **D.J. Sailor**, and L.A. George, 2008. “Public perception and behavior change in relationship to hot weather and air pollution,” presented (by Semenza) at the American Public Health Association (APHA) annual meeting, San Diego, CA, October.
50. Spolek, G., **D. Sailor**, and D. Ervin, 2008. “Green roof optimization through experimental, simulation, and economic analysis,” presented (by Spolek) at the 6th Annual Greening Rooftops for Sustainable Communities Conference, Baltimore, MD, April 30-May 2.
49. **Sailor, D.J.**, 2009. “A Summary of Academic Sustainability Activities at Portland State University”, testimony before the Oregon House Committee on Sustainability and Economic Development, Feb. 5.
48. **Sailor, D.J.**, 2008. “Energy Efficiency and Ecoroofs: an overview of green building research activities”, Portland State University Umbrella Tour, Nov 19.
47. **Sailor, D.J.**, 2008. “Feedback Mechanisms in the Urban Atmospheric Environment,” presented at PSU Sustainability forum, May 9.

46. **Sailor, D.J.**, 2008. “Green roof studies at PSU: energy, storm water, and urban heat island benefits”, presentation to Dr. Ihab Elzeyadi’s University of Oregon Architecture class (senior/1st year grad).
45. **Sailor, D.J.**, A. Brooks, M. Hart, and S. Heiple, 2007. “A bottom-up approach for estimating latent and sensible heat emissions from anthropogenic sources”, presented (by Sailor) at the 7th Symposium on the Urban Environment, AMS, San Diego, Sept. 10-14.
44. Hart, M. and **D.J. Sailor**, 2007. “Assessing causes in spatial variability in urban heat island magnitude,” presented (by Hart) at the 7th Symposium on the Urban Environment, AMS, San Diego, Sept. 10-14.
43. Hart, M., B. Bontempo, B., Bornstein, L. George, L. Kalkstein, **D.J. Sailor**, J. Semenza, H. Taha, and D. Wilson, 2007. “Investigating the urban climate – air quality – human response system for a heat/air quality episode in Portland, Oregon”, presented (as a poster by Hart) at the 7th Symposium on the Urban Environment, AMS, San Diego, Sept. 10-14.
42. Burian, S., M. Brown, **D.J. Sailor**, R. M. Cionco, R. Ellefsen, M. Estes, and T. Hultgren, 2007. “Database features of the National Urban Database and Access Portal Tools (NUDAPT)”, presented (by Burian) at the 7th Symposium on the Urban Environment, AMS, San Diego, Sept. 10-14.
41. **Sailor, D.J.**, T. Pham, A. Lee, and T. Larson, 2007. “Modeling the building energy consumption effects of green roofs,” presented at Greening Rooftops for Sustainable Communities conference, Minneapolis, April.
40. Lee, A., T. Larson, **D.J. Sailor**, and R. Ogle, 2007. “Developing a Web-based Tool for Assessing Green Roofs,” presented at Greening Rooftops for Sustainable Communities conference, Minneapolis, April.
39. **Sailor, D.J.**, speaker with S. Saylor of Vestas Americas, 2007. “Wind Power & Turbine Technology”, professional development class offered by the Oregon section of the American Society of Mechanical Engineers (presented morning portion of course on “Wind as a Resource”), Jan. 12.
38. **Sailor, D.J.**, panelist with R. Bertini, and M. Weislogel, 2006. “Lessons from doing research: Developing ideas, getting funding, and doing the work,” a panel presentation/discussion for the Portland State Mechanical and Materials Engineering Seminar series, Nov. 17.
37. **Sailor, D.J.**, 2006. “Ecoroof Research at Portland State University”, Umbrella Tour (presentation to community members touring campus), Oct 31.
36. **Sailor, D.J.**, S. Heiple, and M. Hart, 2006. “Modeling the effects of anthropogenic heating on the Urban Heat Island – the role of spatial scale”, presented (by Sailor) at the 6th International Conference on the Urban Climate (ICUC6) in Göteborg, Sweden, June.
35. Hart, M., B. Bontempo, L. George, **D. Sailor**, and J. Semenza, 2006. “A multi-faceted approach to assessing human response to extreme heat, poor air quality, and public advisories”, presented at the 6th International Conference on the Urban Climate (ICUC6) in Göteborg, Sweden, June.
34. **Sailor, D.J.** and M. Hart, 2006. “An Anthropogenic Heating Database for Major U.S. Cities”, presented (by Sailor) at the Sixth Symposium on the Urban Environment, American Meteorological Society, Atlanta, January.
33. **Sailor, D.J.**, 2006. “Measurements and Modeling of the Urban Heat Island”, Environmental Sciences and Resources (ESR) program seminar, Portland State University, Oct 20.
32. **Sailor, D.J.**, 2006. “Urban Heat Islands – Causes, Impacts, and Mitigation”, presented for the PSU Development Center and US Army Corps of Engineers as a Seminar for Professional Engineers on the topic of Sustainable Design and Development, Portland, June 1.
31. **Sailor, D.J.**, R.D. Bornstein, L. George, J. Semenza, and H. Taha, 2005. “Complex interactions among urban climate, air quality, and adaptive/reactive human response”, presented (by Sailor) at the NSF Biocomplexity in the Environment PI meeting, Washington, D.C., March 21-23.
30. **Sailor, D.J.**, R.D. Bornstein, L. George, J. Semenza, and H. Taha, 2005. “Modeling the complex interactions among urban climate, air quality, and adaptive/reactive human response”, presented (by Sailor) at the 16th Conference on Weather Modification, 85th AMS Annual Meeting, San Diego, January 9-13.

29. **Sailor, D.J.**, 2005. “Thermal Science Modeling and Measurements in the Urban Climate System”, seminar presentation, Department of Mechanical and Materials Engineering, Portland State University, Oct. 21.
28. **Sailor, D.J.**, 2004. “Urban Heat Island Research at Portland State University”, Umbrella Tour (presentation to community members touring campus), Nov 2.
27. **Sailor, D.J.**, 2004. “Causes, Effects, and Mitigation of the Urban Heat Island,” Environmental Sciences and Resources (ESR) Program seminar, Portland State University, May 7.
26. **Sailor, D.J.** and H. Fan, 2004. “Mesoscale modeling of the impact of anthropogenic heating on the urban climate of Houston – the role of spatial and temporal resolution,” presented (by Sailor) at the 5th Symposium on the Urban Environment, Vancouver, B.C., August 23-26.
25. **Sailor, D.J.** and C. Vasirreddy, 2004. “Spatial and temporal variability of anthropogenic heating in US cities,” poster presentation (by Sailor) at the 5th Symposium on the Urban Environment, Vancouver, B.C., August 23-26.
24. **Sailor, D.J.**, 2004. “Ecoroofs and the Urban Climate”, presented at the Second Annual Greening Rooftops for Sustainable Communities Conference, Portland, OR, June 2-4.
23. **Sailor, D.J.**, and H. Fan, 2004. “The importance of including anthropogenic heating in mesoscale modeling of the urban heat island,” presented (by Sailor) at the 84th Annual Meeting of the AMS, Symposium on Planning, Nowcasting, and Forecasting in the Urban Zone, Seattle, Jan.
22. **Sailor, D.J.**, L. Lu, and H. Fan, 2003. “Estimating urban anthropogenic heating profiles and their implications for heat island development,” In proceedings of the Fifth International Conference on Urban Climate (ICUC-5), Lodz, Poland, Sept. 1-5.
21. **Sailor, D.J.**, L.S. Kalkstein, and E. Wong, 2002. “The Potential of Urban Heat Island Mitigation to Alleviate Heat-Related Mortality – Methodological Overview and Preliminary Modeling Results for Philadelphia”, proceedings of the 4th Symposium on the Urban Environment, American Meteorological Society, Norfolk VA, May 21.
20. **Sailor, D.J.** and P. Breslow, 2002. “Developing Improved Tools for Electric Utility Peak Load Forecasting, presented (by Sailor) at the Third Symposium on Environmental Applications, 82nd Annual Meeting of the American Meteorological Society, Orlando, January.
19. **Sailor, D.J.** 2001. “Relative Sea Level Rise and the Vulnerability of Coastal Populations to Severe Storms - A Case Study”, presented at the Global Change Open Science Conference (IGBP), Amsterdam, the Netherlands, July.
18. **Sailor, D.J.** 2000. “Improved Representation of the Urban Radiative Budget in Mesoscale Atmospheric Models, presented at the 3rd Symposium on Urban Environments, American Meteorological Society, Davis, August.
17. **Sailor, D.J.**, 2000. “Global Climate Change – a Local Perspective”, seminar presented to the graduate course *Issues in Environmental Health Sciences*, ENHS 601, Tulane University School of Public Health, October.
16. **Sailor, D.J.**, 2000. “Mitigating the Urban Heat Island to Improve Air Quality and Reduce Energy Consumption”, presented at the 1st annual Tulane Engineering Forum, Sept.
15. Rosen, J.N., and **D.J. Sailor**, 1998. “Initialization Issues for Mesoscale Modeling of Urban Heat Islands,” Paper P10A.4, presented (by Rosen) at the 2nd Symposium on Urban Environments, American Meteorological Society, Albuquerque, November.
14. **Sailor, D.J.**, and X. Li, 1998. “Tree-Structured Regression Downscaling for Regional Climate Change Predictions of Precipitation,” presented (by Sailor) at the 9th International Conference on Global Warming, Hong Kong, May.
13. Rohli, D.J., and **D.J. Sailor**, 1998. “Design and Implementation of a Pulsatile Flow Valve for Industrial Heat and Mass Transfer Applications,” Presented (by Sailor) at the 1998 ASEE/GSW Annual Conference, New Orleans, March.
12. Hu, T., Li, X., and **D.J. Sailor**, 1998. “A Neural Network Downscaling Approach for Estimating Regional Temperature Under Global Climate Change,” presented (by Sailor) at the First Conference on Artificial Intelligence, AMS Annual Meeting, 13-15 January, Phoenix, AZ.

11. **Sailor, D.J.**, 1997. "Regional Scale Climate Change Modeling - A comparison of methods and discussion of uncertainties," Presented at the Society for Risk Analysis annual meeting, 7-10 December, Washington, D.C.
10. **Sailor, D.J.**, 1997. "Climatic Change Feedback to the Energy Sector: Developing Integrated Assessments," Presented at the 8th International Conference on Global Warming, New York NY, May.
9. Barattini, V. and **D.J. Sailor**, 1997. "Pulsed Impingement Heat Transfer Enhancement Between an Air Jet and a Heated Surface," Presented (by Sailor) at the 1997 ASEE/GSW Annual Conference, Houston, March.
8. Rumph, G. and **D.J. Sailor**, 1997. "Limitations of Land-Use based Surface Characterization for Mesoscale Models: Implications for Sub-Grid Moisture Parameterization," Presented at the 77th American Meteorological Society Annual Meeting, February, Long Beach.
7. Muñoz, J.R. and **D.J. Sailor**, 1997. "Potential Impact of Doubling Atmospheric Carbon Dioxide on Energy Consumption in the U.S.," Presented (by Sailor) at the 77th American Meteorological Society Annual Meeting, February, Long Beach.
6. Li, X. and **D.J. Sailor**, 1997. "Correlating NCAR CCM Upper Atmosphere Parameters to Surface Observations for Regional Climate Change Predictions," Presented (by Sailor) at the 77th American Meteorological Society Annual Meeting, February, Long Beach.
5. **Sailor, D.J.**, 1996. "Response of Tropospheric Ozone Formation to Meteorological Profile Perturbations", Presented at the 76th annual meeting of the American Meteorological Society, January, Atlanta.
4. Li, X., and **D.J. Sailor**, 1995. "Energy-Use Implications of Climate Change," presented (by Sailor) at the 6th International Conference on Global Warming, San Francisco, April 1995.
3. Larson, M.C., **D.J. Sailor**, and P.M. Lynch, 1994. "A Capstone Design Course Organized Using a Corporate Structure Model," presented (by Larson) at the 1994 Centennial Meeting of the Gulf-Southwest Section of ASEE, March.
2. **Sailor, D.J.**, 1994. "Sensitivity of Coastal Meteorology and Air Quality to Urban Surface Characteristics", Presented at the 74th annual meeting of the American Meteorological Society, January, Nashville.
1. Kessler, R.C., and **D.J. Sailor**, 1993. "Use of Numerical Models to Assess the Effects of Energy Usage Reduction Measures on Air Quality in the Los Angeles Area". Presented (by Kessler) at the conference: The Role of Meteorology in Managing the Environment in the '90's, The Air and Waste Management Association (AWMA) January.

FUNDED RESEARCH:

AT ARIZONA STATE UNIVERSITY 2016-present (>\$1.5M funded as PI + ~\$4.9M as co-PI or SI):

Cool Pavement Pilot Program—joint study between the City of Phoenix and Arizona State University, City of Phoenix, **\$100k**, August 2020-July 2021 (Senior Investigator, with co-PIs Ariane Middel and Jenni Vanos).

Passive Radiative Heat Pump Surfaces for Urban Cooling: from Lab to Field Testing, **\$86,000**, July 2020-June 2021. ASU Zimin Institute (PI with Richard R. King, co-PI, and Ariane Middel, co-PI)

Environmental sustainability of Southwestern US utility-scale photovoltaic expansion under changing climate conditions, NSF Environmental Sustainability, 1940781 (co-PI with A. Broadbent, PI and M. Georgescu, co-PI), **\$298,366**.

ASU Healthy Urban Environments (HUE) Initiative, through support from Maricopa County Industrial Development Authority. Neighborhood-scale Comparison of Heat Mitigation Strategies Phoenix, **\$50,000**. (PI, with student co-PI Crank)

Mitsubishi, Kaiteki Institute, Design, Development and Testing of Innovative Materials for Urban Cooling, April 3, 2019-April 2, 2021, **\$75,000** (year 1), **\$125,000** (year 2), sub-project PI.

- Planning Grant: ERC for Control of Urban Thermal Environments, NSF Engineering Research Center Planning Grant, 1840392. Subcontract from Georgia Institute of Technology (Y. Joshi, PI), November, 2018 **\$20,218**, ASU PI (investigator recognition 100%).
- Collaborative Research: Development of a multi-scale model to determine optimal urban heat mitigation strategies for vulnerable populations in a changing climate, **\$141,000** (Investigator recognition 100%), NSF CBET 1623948 (transfer from award 1511905), 2015-2018. (Collaborative Research with G. Ban-Weiss, USC).
- Fitness Center Energy Analysis, LifeTime Fitness, **\$15,000**, Aug 2016-Sept. 2018, PI.
- Determinants of indoor and outdoor exposure to ozone and extreme heat in a warming climate and the health risks for an aging population, **\$999,635** (investigator recognition 100%), EPA STAR GRANT 83575401, Jan. 2015 – Jan., 2018, PI.
- LTER: CAP IV: Investigating urban ecology and sustainability through the lens of urban ecological infrastructure", NSF, **\$4.5M** (senior investigator recognition 3%), Dec 1, 2018 – Nov 30, 2022.
- AT PORTLAND STATE UNIVERSITY 2003-2015 (>\$4M funded as PI + >\$1.5M as coPI):***
- Green Building Research Lab (GBRL) Manager, **\$46,906**, OR BEST, Sept. 2014 - Aug 2015, PI.
- IREC: Interdisciplinary, Research-based Engineering and Design for Green Buildings, **\$630,978**, NSF Directorate for Education & Human Resources, grant 1259550. Co-PI with C. Griffin, S. Palleroni, H. Hu, and P. Dusicka, Sept. 1, 2014 – Aug. 31, 2019.
- Walmart Realty Compliance Grant Application, **\$133,000**. Walmart Hayden Meadows Green Roof & Stormwater Research Plan, Nov 2013-Nov 2015, PI.
- Portland Regional Clean Technology Advance Initiative **\$50k** (+ \$50k in-kind match). Industry-University Collaboration to Develop New High Performance Window Products, Funded through the Portland Development Commission as part of a Jobs and Innovation Accelerator Challenge (JIAC) grant, PI with F. Etesami.
- Towards an EcoDistricts Strategy for Sustainable Urbanism in the Gulf Region: Greater Doha as a Case Study, \$1M project, subcontract of **\$310k** from Qatar University. Funded by the National Priority Research Program (NPRP) of the Qatar National Research Fund, July 1 2012-June 30 2015. Co-PI with V. Shandas.
- Development, Testing, and Pilot Scale Evaluation of a new Retrofit Window Insulation Product – The Indow Window, **\$73,481**. Funded by Oregon BEST's Commercialization Grant Program, February 2011- May, 2012, PI.
- Green Building Research Laboratory, **\$1,000,000**. Energy and Water Development and Related Agencies Appropriations Act, 2010, 111th Congress, 1st session, Oct. 1, 2009, PI.
- Implications of Simultaneous Extreme Heat and Drought Events for Electricity Generation and Consumption and Water Shortage in the Desert Southwest, **\$29,951**. August 2009 – December 2010. Funded by the Bipartisan Policy Center – NCEP as a collaborative project with Arizona State University (D. Sampson and P. Gober).
- Integrating Green Roofs and Photovoltaic Arrays for Energy Management and Optimization of Multiple Functionalities, April 2009 – March 2012, **\$300,000**. NSF CBET, Environmental Sustainability, grant 0853933. Additional matching funds totaling ~**\$100k** from PGE, Portland Bureau of Environmental Services, and Oregon BEST. Co-PI (with C. Wamser and T. Rosenstiel).
- Green Building Research Laboratory Infrastructure, 2009 (Jan. 2009- Jun. 2009). **\$651,532**. PSU Center for Sustainable Processes and Practices (\$351.5k) and match from Oregon BEST Signature Research Center (\$300k). PI with G. Spolek, L. Lutzenhiser, and S. Palleroni.
- Commercial Building Energy Use in Oregon – comparing 2007 Oregon non-residential energy code and the proposed 2010 code revision, **\$23,917**, State of Oregon Building Codes Division. April 2009 - Feb. 2010, PI.
- A Green Roof Energy Calculator, **\$149,509**, 2008-2010 (Nov 1, 2008- Nov 1, 2010). USGBC. PI (with G. Spolek, B. Bass, and S. Peck).

- Measurement and Modeling of Green Roof Performance Leading to the Development of an Energy Savings Calculator, **\$75,000**, 2008-2009. Oregon BEST Signature Research Center, 2008-2009. Co-PI (with G. Spolek).
- A framework for developing design tools for estimating the building energy savings potential of ecoroofs, Total Project support **\$117,000**. Ecotrust Foundation \$62,000, Gerding Edlin \$5,000, City of Portland, Bureau of Environmental Services \$50,000, 2006-2009, PI (with G. Spolek and D. Ervin, PSU).
- Developing Typical Meteorological Year (TMY) data files under climate change scenarios for use in building energy simulations: a case study of Hong Kong and California, HK\$ 658,750 (~**\$85,000** USD), Hong Kong Research Grants Council- General Research Fund, co-PI (with M. Hart).
- Development of an Ecoroof Energy Performance Estimation Tool, EPA SBIR 2006, with Quantec LLC, \$69,856. Subcontract to PSU in amount of **\$20,012** for Phase I of SBIR, PI of PSU subcontract with G. Spolek.
- Wireless sensor network technology as a mechanism for enhancing multi-disciplinary engineering education, Intel Faculty Fellowship Program, 2005-2006, **\$39,660** from Intel Corporation, **\$7,945** from PacifiCorp, PI (with M. Faust, ECE, PSU).
- Professional, Technical, and Expert Services for Monitoring and Verification of Green Building Feature Performance, City of Portland, Office of Sustainable Development (subcontract of **\$5,241**), 2005-2006, subcontractor.
- Complex interactions among urban climate, air quality, and adaptive/reactive human response: National Science Foundation, special competition in Biocomplexity in the Environment focusing on the Dynamics of Coupled Natural and Human Systems (BE-CNH), 2004-2010, **\$1,699,972** and **\$12,000** REU supplement (Award #s: 0410103 and 0455976), PI (with L. George, J. Semenza, B. Bornstein, and H. Taha).
- Assessing impacts of urban areas on precipitation - an investigation of UCP and anthropogenic heating: NASA, Global Precipitation Measurement Mission, 2005-2006, **\$15,000** (Grant: NNG05GH96G), PI as part of a coordinated set of separate proposals (with H. Taha, Altostratus).
- Scoping Study- Assessment of the vulnerability of major cities in Australia to the impacts of climate change, Department of Environment and Heritage, Australian Government, support as a project consultant for Sinclair, Knight, Merz Pty., Ltd, 2005, **\$4,100**.
- Atmospheric Modeling of the Potential Impacts of Green Roofs on Portland's Urban Climate: City of Portland Office of Sustainable Development (Intergovernmental agreement under ordinance # 178791), 2004, **\$4,690**, PI.
- A Screening Tool to Assess the Benefits of Urban Heat Island Reduction Measures: U.S. Environmental Protection Agency (EPA Contract Number 68W02029) as a consulting subcontract (02029-06) through Perrin Quarles Associates, 2003-2007, Total: **\$56,850**.

AT TULANE UNIVERSITY, 1993-2003 (\$1.2M funded as PI + \$337k as co-PI):

- Integrating Remotely Sensed Data and Anthropogenic Heating in Atmospheric Models of the Urban Environment: NASA (NASA/LEQSF(2002-03)-DART-03), 2002-2003, **\$34,506**, PI.
- Streamlined Mesoscale Modeling of Air Temperature Impacts of Heat Island Mitigation Strategies: U.S. Environmental Protection Agency (Assistance ID No. 82806701), 2000-2002, **\$239,435**, PI.
- COAMPS for Coastal Urban Transport Studies - Developing Infrastructure and Testing Models: Office of Naval Research (CBR, N00014-99-1-0763), 2001-2002, **\$50,569**, PI.
- Land Use Feedback to the Regional Climate System: A Sensitivity Study, Department of Energy (Department of Energy, NIGEC, Cooperative Agreement: DE-FC03-90ER61010), 2001-2002, **\$71,712**, PI
- Investigating air quality and meteorological inputs at NIWOT Ridge Department of Energy (Department of Energy, NIGEC, Cooperative Agreement: DE-FC03-90ER61010), 2001-2002, **\$37,187**, PI

Integrating Cutting-Edge Electromechanical Instrumentation Throughout the Mechanical Engineering Curriculum, Louisiana Board of Regents, Enhancement Program, 2000-2001, **\$150k** agency, \$72.9k match. PI (with J.F. Figueroa, E.E. Michaelides, and A. Rubinstein)

Enhancing Host Institution Capabilities in Support of NIGEC Activities - Energy and Environment Lab Course, Department of Energy (Department of Energy, Office of Biological and Environmental Research/NIGEC), **\$16,335**, PI.

Collaborative Research with the Institute of Radioecological Problems (Belarus), Department of Energy-EM, 1994-1997, **\$337,000**, co-PI with E.E. Michaelides (PI) and others.

Developing Tools for Rapid Assessment of Convective Transport of Atmospheric Contaminants Released Near or at the Surface: Department of Defense (DSWA/CBR), 1998-1999, **\$65,000**, PI

Downscaling GCM Results for Regional Precipitation Studies, Department of Energy (Department of Energy, NIGEC, Cooperative Agreement: DE-FC03-90ER61010), 1997-2000, **\$244,134**. PI.

Pulsed Impingement Heat Transfer for HVAC Applications, American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), 1997-1998, **\$2,500**, PI.

Energy-Use Implications of Climate Change, Department of Energy (Department of Energy, Summer Program in Environmental Engineering and Science (SPEES), TRW Corporation, through a grant to the School of Engineering, 1996-1997 **\$30,000**. PI

NIGEC, Cooperative Agreement: DE-FC03-90ER61010), 1994-1997, **\$196,700**. PI.

Improving Surface Characterizations for Atmospheric Models, Louisiana Board of Regents LEQSF Research Competitiveness Program, 1994-1997, **\$89,000**. PI.

RECENT RESEARCH COLLABORATORS (outside of Arizona State University)

AlKhaled, Saud	Kuwait University, KUWAIT
Ban-Weiss, George	University of Southern California
Bass, Brad	Environment Canada and University of Toronto, CANADA
Bililign, Solomon	North Carolina A&T University
Chen, Fei	National Center for Atmospheric Research
Erell, Evyatar	Ben Gurion University, ISRAEL
Ferwati, M. Salim	Qatar University, Doha, QATAR
Gall, Elliott	Portland State University
Gurney, Kevin	Northern Arizona University
Hart, Melissa	ARC Centre of Excellence for Climate System Science, AUSTRALIA
Hayden, Mary	National Center for Atmospheric Research
Heusinger, Jannik	Technical University of Braunschweig, GERMANY
Joshi, Yogendra	Georgia Institute of Technology
Kalkstein, Larry	University of Miami, Florida
Krayenhoff, E.S.	University of Guelph, CANADA
Lee Sang-Hyun	Kongju National University, KOREA
Mahmoud, Hatem	Aswan University, EGYPT
Matisoff, Daniel	Georgia Institute of Technology
McKeen, Stuart	National Oceanic and Atmospheric Administration
O'lenick, Cassie	National Center for Atmospheric Research
Peck, Steven	Green Roofs for Healthy Cities, Toronto, CANADA
Pullen, Julie	Stevens Institute of Technology
Recktenwald, Gerald	Portland State University
Russell, Armistead	Georgia Institute of Technology
Sain, Stephan	National Center for Atmospheric Research
Samuelson, Holly	Harvard University
Santamouris, Mat	University of New South Wales, AUSTRALIA
Semenza, Jan	European Centre for Disease Prevention and Control, SWEDEN

Shandas, Vivek	Portland State University
Shepherd, Marshall	University of Georgia
Starry, Olyssa	Portland State University
Stone, Brian	Georgia Institute of Technology
Taha, Haider	Altostratus Inc., California
Taleghani, M.	Leeds Beckett University, UNITED KINGDOM
Tenpierik, M.	Technical University, Delft, NETHERLANDS
Van den Dobbelssteen, A.	Technical University, Delft, NETHERLANDS
Wiedinmyer, Christine	National Center for Atmospheric Research
Wilhelmi, Olga	National Center for Atmospheric Research
Yoda, Minami	Georgia Institute of Technology

GRADUATE STUDENT AND POSTDOC ADVISEES:

PhD and Postdoctoral Scholars:

Abbass, Omed (PhD 2017) Building materials and indoor air quality
 Anand, Jyothis (PhD, expected 2022) Building façade materials' impact on indoor/outdoor environments.
 Banniasadi, Amir (PhD, 2019) Thermal resilience of buildings
 Breslow, Paul (PhD 2004), short-term electric utility load forecasting
 Crank, Peter (PhD 2020). Targeted Heat Mitigation Strategies
 Fan, Hongli (PhD 2004) urbanization of mesoscale atmospheric models
 Hart, Melissa (Postdoc, 2005-2008), heat, pollution and the role of health advisories
 Heusinger, Jannik (Postdoc 2016-2018), Real time urban heat mapping project
 Kang, Daeho, (Postdoc 2010-2011) Building energy modeling to include urban canyon effects
 Li, Xiangshang (PhD 2000; Postdoc 2001-2002) Climate downscaling with Tree-Structured Regression
 Mehner, Aaron (PhD, Sustainability, expected 2023) Sustainable energy technologies and policies
 Pinto-Garcia, German (PhD 2015) visiting student, Universidad Piloto de Colombia, Colombia.

Masters Students:

Aghili, Ali (M.S. 1995). Doppler system to estimate narrowing of an atherosclerotic lesions
 Bhatnagar, Abhishek (M.S. 2006) automated systems for urban heat island measurements
 Boschiero, Jonathan (M.S. 2011). CFD modeling for urban applications
 Botham, D. (M.S. 2011-2014). Urban climate modeling at neighborhood scales
 Brooks, Alamelu (2007-2008) building energy modeling for assessing anthropogenic heat emissions
 Burnett, Ben (M.S. 2009-2011) heat transfer measurements in urban settings
 Campbell, Kevin (M.S. 2011) Optimization of phase change material use in buildings.
 Chu, Chaoyang (Billy) (M.S. 2000). Urban Heat Islands and Climate Change
 Elley, Tim, (M.S. 2011) modeling the building energy impacts of green roofs
 Fu, Qianli (M.S. 1999) experiments of pulsed impingement heat transfer
 Ganesh, Karthikeyan (MS 2008) Development of a small, low power wind sensor
 Gibson, C. Max (2010-2012) Three-dimensional flux-skin estimation approach for urban measurements
 Groves, Matt (M.S. 2012) Measurement and modeling of Passivehouse superinsulated structures
 Haque, Asim (M.S. 1997) Mathematical modeling of the Moulder Cardiac Assist Device
 Heiple, Shem (M.S. 2008), spatial and temporal variability of anthropogenic heating in cities
 Hu, Tianmiao (M.S. 1998) Artificial Neural Network Techniques for Regional Climate Downscaling
 Lauck, J. (M.S. 2013) Performance of super-insulated high-performance buildings.
 Lu, Lu, (M.S. 2003)., Relationships among meteorological parameters and air quality.
 Madhusudan, Vikram (M.S. 2006) Ecoroof mass and energy balance model for energy simulation
 Moody, Seth (M.S. 2012) Evaluation of an integrated PV-green roof system.
 Muñoz, Ricardo (M.S. 1997) Energy Use Implications of Climate Change.,
 Ogaili, Hamid (M.S. 2015). Role of rooftop energy balance in affecting PV performance

Pham, Toan (exchange student 2006), Univ. of Lyon. Ecoroof model within the EnergyPlus
Robar, Henry (M.S. 2008). Thermal discomfort island as it relates to surface characteristics and land use.
Rodriguez, Santiago (M.S. 2014). Sensible air to air heat recovery strategies in a Passive House
Rohli, Dan, (M.S. 1999) Design of a pulsatile flow valve for heat or mass transfer enhancement.
Rosen, Jesse (M.S. 1998) Local climatic effects of the creation of a hydroelectric reservoir
Rumph, Greg (M.S. 1996) Sub-grid parameterization strategies in atmospheric models
Scherba, Adam (M.S. 2011) Urban heat implications of photovoltaic, green, and other roofing systems.
Schultz, Isaac (M.S. 2015). Rooftop Water and Energy Balances on Green Roofing
Sharma, Vishaldeep (M.S. 2010) A moisture transport and tracking model for ecoroofs.
Vasireddy, Chittaranjan (M.S. 2004) Improved state and city scale energy consumption models
Vuppuluri, Prem, (M.S. 2013) Building envelope energy balance effects on building and environment.

SERVICE ON INTERNATIONAL DOCTORAL EXAM COMMITTEES:

Cowan, David J., Ph.D. 2006, Bridging building technology research and design practice: effective knowledge diffusion, University of Calgary, CANADA.
Galal, Omar Mohamed., 2019-21, The Relation between the Morphology of Neighborhoods and their Ability to Depend on Solar Energy: Case Study New Aswan, Technical University of Berlin, GERMANY
Hendarti, Religiana, Ph.D., 2013, The Influence of the Evapotranspiration Process of Green Roof Tops on PV Modules in the Tropics, National University of Singapore, SINGAPORE.
Heusinger, Jannik, Ph.D., 2017, Extensive Green Roof Surface-Atmosphere Exchange of Energy and Carbon, Technical University of Braunschweig, GERMANY.
Krebs, Lisandra, 2018, Extensive Green Roofs in Porto Alegre, Brazil: Effect on indoor thermal comfort in residential buildings,” dual degree program, Department of Architecture, Lund University, SWEDEN, and Faculty of Architecture and Urbanism, Federal University of Rio Grande do Sul, BRAZIL. Served as external “opponent” for defense in Porto Alegre BRAZIL
Ouldboukhitine, Salah Eddine, Ph.D., 2012, Impact of green roof on the energy performance of buildings by a multidisciplinary approach: Agronomy and Building, University of La Rochelle, FRANCE.
Taleghani, Mohammad, Ph.D., 2014, Dwelling on Courtyards: Exploring the energy efficiency and comfort potential of courtyards for dwellings in the Netherlands, TU Delft, NETHERLANDS.
Touchaei, Ali Gholizadeh, Ph.D. 2015, Characterizing the Effect of Increasing Albedo on the Urban Meteorology and Air Quality in Cold Climates, a Case Study for Montreal, Concordia University, Montreal CANADA.
Zandaghian, Zahra, Ph.D., 2018, Effects of Increasing Surface Reflectivity on Urban Climate, Air Quality, and Heat-Related Mortality, Concordia University, Montreal, CANADA

TEACHING EXPERIENCE (Courses Developed and/or Taught):

At Arizona State University:

Global Change (Arizona State University: GPH 314) Redesigned, implemented, and taught a large on-line course on the topic of global change. Offered each fall starting Fall 2018. Typ. ~325 online students.
Urban Climates (Arizona State University: GPH 598 – GPH 563 effective 2020): Developed a graduate course for geographers, planners, designers, and engineers on urban climates and taught ~1/year 2016-present. Typ. ~10 students.

At Portland State University:

Advanced Heat Transfer (Portland State: ME 442/542); Taught 1st year graduate students topics in conduction and convection heat transfer. Typ. ~15 students
Building Energy Simulation (Portland State: ME 422/522); Developed and taught a course in building energy simulation using student-developed and commercial software. Typ. ~25 students

Fundamentals of Building Science (Portland State: ME 423/523). Co-developed and taught (with G. Spolek and H. Hu) a new laboratory and measurement focused course on building science topics for upper division undergraduate and new graduate students. Typ. ~30 students
Heat Transfer (Portland State: ME 323); Instructed Mechanical Engineering juniors in heat and mass transfer. Typ. ~35 students
High Performance Buildings (Portland State: ME 510/610); Graduate course focused on high performance residential buildings emphasizing Passive House designs. Typ. ~20 students
Thermodynamics (Portland State: ME 321); Traditional junior level course in Thermodynamics for Mechanical and Civil Engineering students. Typ. ~120 students

At Tulane University:

Advanced Fluid Mechanics (Tulane: MCEN 651); Instructed students in a graduate fluid mechanics course. Typ. ~ 10 students.
Computational Fluid Mechanics and Heat Transfer (Tulane: MCEN 626); Taught fundamentals of CFD to a class composed primarily of graduate students. Typ. ~10 students
Computer Aided Engineering (Tulane: MCEN 201); Introduced sophomores to many engineering software packages (e.g. Algor, Autocad, Mathcad, ProEngineer). Typ. ~25 students
Fluid Mechanics (Tulane: ENGR 344); Instructed engineering juniors in traditional undergraduate course. Typ. ~35 students
Heat Transfer (Tulane: MCEN 302); Instructed Mechanical Engineering juniors in heat and mass transfer. Typ. ~35 students
Introduction to Solid Modeling (Tulane: MCEN 202); Developed and taught a software-oriented course on solid modeling to juniors and seniors. Typ. ~25 students
Mechanical Engineering Laboratory (Portland State: ME 411, Tulane: MCEN 371); Instructed juniors, seniors, and graduate students in fundamentals of laboratory measurements and reporting. Typ. ~30 students
Mesoscale Meteorological Modeling (Tulane: MCEN 698); Offered a seminar course into the fundamentals of atmospheric modeling. Concepts included surface characteristics, surface energy balance, atmospheric diffusion, terrain-following (sigma) coordinates. 6 students.

Outreach and Other Education Projects:

FUSE Summer Institutes, as part of an NSF-funded project assisted in the development and delivery of a 4-week summer institute on urban climate and air quality for high school students and teachers. Program coordinator: L. George, PSU, 2005-2007.
Presentation at the Beaverton Hillsboro 2nd Science Expo, “Computational Modeling and Measurements in the Urban Climate System”, Sept. 17, 2004. Attendance >1000 high school students from 11 schools in Beaverton and Hillsboro attending concurrent sessions.
Tulane Science Scholars Program (TSSP) Instructor. Taught 12-hour course on Renewable Energy to high school juniors/seniors, Tulane University, Fall, 1998. Program specifically targeted recruitment of women into STEM.
Tulane Science Scholars Program (TSSP) Instructor. To teach an 8-hour course on Hands-on Application of Computer Aided Drafting in Engineering Design, Tulane University, Spring 2000. Program specifically targeted recruitment of women into STEM.
Summer Program in Environmental Engineering and Science (Tulane), Organized and directed a one-week summer science camp for local junior high school students using grant funds from TRW Inc., 1997. Participated in subsequent years of the program as an instructor for renewable energy projects under funding from the Department of Energy, Tulane University, 1999-2001. Program specifically targeted underrepresented minorities from the New Orleans public school system.
Fundamentals in Engineering Fluid Mechanics Review Lecture (Tulane); Provided review notes and lecture to prepare students for Fluid Mechanics portion of the FE exam; twice a year, Tulane University, 1994-96.

TEACHING ENHANCEMENT ACTIVITIES:

Master Class for Teaching Online – March 2018. Completed class on online teaching at ASU (through EdPlus). This two week, asynchronous online workshop was designed to facilitate peer sharing of strategies for designing and teaching online courses.

EnergyPlus Summer Institute for faculty teaching energy modeling, hosted by Dru Crawley and U.S. Department of Energy

Fall Campus Symposium– Participated in Provost’s symposium focused on “identifying university learning outcomes”, June 2007.

PTC corporation weeklong training seminar in ProEngineer, June, 1999.

Gulf Southwest meeting of the ASEE, Houston, March, 1997.

Environmental Faculty Enrichment Seminar (2 week workshop), Tulane University, May, 1996.

Lilly Endowment Teaching Fellows Conference; Peach Tree, GA, March 1995.

Conference on Teaching in the Sciences; Tulane University January 1994.

Lilly Endowment Teaching Fellows Conference; Indianapolis, November 1994.

President’s Conference on Teaching and Learning; Tulane University October 1993.

UNIVERSITY SERVICE:

Committees/Service at Arizona State University:

University

2020-2021: Chair, Research and Creative Activities Committee, ASU Faculty Senate

2018-2021: University Senate representative from SGSUP

2018-2019: University Senate – Research and Creative Activities Committee, member

2019-2020: University Senate – University Services and Facilities Committee, member

2016-2018: Co-Lead of the OKED Cities Campaign (with Dean Chris Boone)

2016-pres: Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability

2019-pres: Center for Innovation in Healthy and Resilient Aging, Internal Advisory Board member

College

2017-pres: Director, Urban Climate Research Center

2016-2019: CLAS Research Committee

School

2019-pres: SGSUP Barrett Honors College Faculty Advisor (Geography)

2020-2022: SGSUP Student Awards & Scholarships Committee

2020-2022: SGSUP Personnel Committee

2019-2020: Faculty Search Committee, Member – Urban Planning

2016-2017: Faculty Search Committee, Chair –Environmental Planning Position

Committees at Portland State University:

University Committees

2014: Undergraduate Sustainability Certificate Learning Outcomes working group, Portland State

2012-2014: PSU Capital Committee, Standards Sub-Committee, member, Portland State

2012-2015: Senior Fellow, Institute for Sustainability Solutions, Portland State

2010-2014: Research Advisory Council, Member, Portland State

2008-2009: Search Committee, Chair for Energy Efficiency and Renewable Energy faculty position (1 of 5 sustainability positions), Portland State

2008-2009: Search Committee for Director for the Center for Sustainable Processes and Practices, Portland State, co-chair

2005-2008: Undergraduate Curriculum Committee, Portland State

- 2005: Research Advisory Council (Portland State)
2004: Sustainability Steering Committee, Portland State

College Committees

- 2013-2015: Dean's P&T Advisory Committee, Portland State
2012: Engineering 20-20 Committee (budget steering committee), Portland State
2008-2009: Faculty Senate, Senator Portland State
2004-2006: Curriculum Committee Portland State
2003-2004: Computing Task Force, College of Engineering, Portland State

Department Committees

- 2014-2015: Search Committee Chair, Building Science Position, Portland State
2007-2008: Faculty Search Committee, Chair – Energy Position, MME, Portland State
2006-2007: Tenure and Promotion Committee Portland State, Chair
2006-2007: Graduate Committee, Portland State, Chair
2004-2006: Curriculum Committee, Portland State, Chair, Jan.
2003-2004: Faculty Search Committee – Thermal Science Position, MME, Portland State

Committees at Tulane University:

University Committees

- Committee on Strategic Planning for Graduate Programs, Tulane, 1999.
Committee on Athletics, Tulane, 1994-1997.
Office of Research Ad Hoc Committee on Computing, Tulane, 1995-1996.

College Committees

- 2002: Steering Committee, Tulane Engineers Forum – Energy and the Environment, Tulane
2002: Session Chair, Power Session, Tulane Engineers Forum, Sept., Tulane
1993-2003: Computing Committee, Tulane (chair '00-'02).
1998-1999: Dean Search Committee, Tulane
1995-1998: Graduate Committee, Tulane

Department Committees

- 2001-2003: Undergraduate Committee, Tulane
2000: Administrative Assistant Search Committee, Tulane
1993-1999: Graduate Committee, Tulane, (chair, '95-'99).
1999-2000: Undergraduate Advisor, Tulane
1993-1996: Resource Committee, Tulane (chair '93-'94).

PATENTS AND AWARDS:

U.S. Patent #10,704,263 B2: “High Albedo Moisture-Retaining Foam Roofing and Façade Systems, Utility patent filed by ASU, March, 19 2018. David J. Sailor, Nils Jannik Heusinger, and Amir Baniassadi, inventors, Issued July 7, 2020.

Building and Environment Journal (Elsevier, Impact Factor > 4), Awarded Best Paper Award 2017.

AMS Board on the Urban Environment BUE Award, presented by the AMS (Feb. 2014) “For his seminal contributions to urban anthropogenic heating research, and for his outstanding leadership and service to the AMS Board on the Urban Environment.” (inaugural recipient).

Outstanding Faculty Research Award, Maseeh College of Engineering and Computer Science, Portland State University, June 2005.

Special Prize for Potential Applicability in Practical Applications. Rosen, J.N., and D.J. Sailor (1998).

“Initialization Issues for Mesoscale Modeling of Urban Heat Islands,” Paper P10A.4, presented at the 2nd Symposium on Urban Environments, American Meteorological Society, Albuquerque, November.

U.S. Patent #6053203: “Mechanically-driven pulsating flow valve for heat and mass transfer enhancement,” David J. Sailor and Daniel J. Rohli, inventors. Issued April 25, 2000.

Undergraduate Senior Project Grant Program Award, ASHRAE support of \$2,500, 1997.

Teaching Fellowship, Lilly Endowment, 1994.

High Performance Computing Fellowship, National Science Foundation, 1992. Fellowship to participate in the Advanced Computing Summer Institute, San Diego Supercomputer Center.

SOCIETY MEMBERSHIPS ADMINISTRATION:

American Meteorological Society

Member since 1993

Member, AMS Board on the Urban Environment, Jan. 2005- Dec. 2007.

Chair, AMS Board on the Urban Environment (2008-2011).

American Society of Heating, Refrigeration, and Air Conditioning Engineers

Faculty advisor to student section at Tulane (1997-2000).

Faculty advisor to student chapter at Portland State (2009-2012)

American Society of Mechanical Engineers

Member since 1993

Member K19 Committee on Environmental Heat Transfer (1995-2003)

Member K21 Committee on Heat Transfer Education (1997-2003)

Faculty advisor to student section at Tulane (2001-2003).

ASME Speakers Bureau, speaker (2013-)

International Association for Urban Climate (IAUC)

Member since 2001

Board member 2011-2015 (elected by membership of IAUC)

Secretary of the Board (elected in 2014 for new 3-year term, 2014-2017)

Cool Roof Rating Council (CRRC)

Member since 2020 (pending)

Member, Education Committee (pending appointment)

JOURNAL/MONOGRAPH REVIEWER (last 3 years):

Atmospheric Environment

Environmental Research Letters

Energy, the International Journal

Energy and Buildings

Energy and Environment

Energy Policy

Journal of Geophysical Research

Journal of Green Building
Journal of Hydrometeorology
Landscape and Urban Planning
Renewable Energy
Science of the Total Environment
Solar Energy
Sustainable Cities and Society
Urban Climate

PROPOSAL/PROGRAM REVIEWER:

National Science Foundation

Proposal reviewer and panelist for various programs

U.S. Department of Energy, Energy Efficiency and Renewable Energy Program

Panelist for Energy Efficiency/Laboratory Program Reviews

Panelist for DoE SBIR program

U.S. Environmental Protection Agency

Panelist for EPA STAR program

Panelist for multiple SBIR programs

Reviewer for “Heat Island Guidebook”, State and Local Branch, 2004.

EDITORIAL BOARDS:

2020-present: *Sustainable Cities and Society* (Elsevier), member Editorial Board

2019-present: *Energy and Buildings* (Elsevier), member Editorial Board

2017-present: *J. Green Building* (College Publishing), member Editorial Board

OTHER LEADERSHIP EXPERIENCE, ADVISORY BOARDS AND CREDENTIALS:

2020-present: Morrison Institute for Public Policy/Guinn Center for Policy Priorities Advisory Board
member for project studying how disaster management policies address people of color’s
vulnerability to extreme heat.

2020-present: International Scientific Committee of the 54th ASA (Architectural Science Association)
2020 conference, Auckland, NZ, 25-28 November, 2020.

2019- present: Member, Transit Shelter Steering Committee, City of Tempe

2019-2020: Member Science Committee for the 11th International Conference on Urban Climate, Sydney
Australia, 30 Aug – 3 Sept, 2021.

2018-present National Renewable Energy Laboratory, US Department of Energy, URBANopt Advanced
Analytics Platform Technical Advisory Group (TAG).

2018: Advisor to the Green Roofs Review Task Force, Denver Department of Public Health and
Environment.

2017-present: Cool Building Solutions for a Warming World, Working Group Member, Lawrence
Berkeley National Laboratory.

2017: International Association of Building Physics (IABP). Member, International Scientific Committee
for IBPC 2018 held in Syracuse, NY, September 23-28, 2018.

2017-2018: Grand Renewable Energy Conference RE2018 (Yokohama, JAPAN), member International
Advisory Committee.

2016-present: CAP-LTER, Co-Lead, Climate & Heat IRT, ASU.

2014: US-KOREA Conference 2014—Korean-American Scientists and Engineers Association: Chair,
Civil, Environmental, Energy Symposium (CEE), and keynote speaker, San Francisco, Aug 6-9,
2014).

- 2014: 13th International Conference on Indoor Air Quality and Climate, member International Scientific Committee, Hong Kong (July 7-12, 2014)
- 2011: National Academy of Sciences, Participant in the workshop: Urban Meteorology: Scoping the Problem, Defining the Needs BASC Summer Study, July 27-28, 2011 for the Committee on Urban Meteorology of the Board on Atmospheric Sciences and Climate; Division on Earth and Life Sciences; National Research Council (NRC), leading to the publication of Urban Meteorology: Forecasting, Monitoring, and Meeting Users' Needs
- 2010: Conference on Urban Environmental Pollution: Overcoming Obstacles to Sustainability and Quality of Life, organized by the Journal of Environmental Pollution, held on 20-23 June 2010 in Boston, Massachusetts, USA – member Scientific Advisory Committee.
- 2008: U.S. Green Building Council (USGBC), LEED Accredited Professional.
- 2008-2015: Oregon Built Environment and Sustainable Technologies (BEST) Signature Research Center, Member, Scientific Advisory Committee.
- 2007: American Meteorological Society, Conference co-chair (with Bob Bornstein and Jason Ching): Seventh Symposium on the Urban Environment, American Meteorological Society, San Diego, September, 2007.
- 2005-2006: Portland Office of Sustainable Development, Green Investment Fund - Monitoring and Verification of Green Building Feature Performance.
- 2002-2010: Session chair: multiple sessions, Symposia on Urban Environment.
Clean Cities Coalition Steering Committee, Mayor's Office of Economic Development, 2001.
- 2000: City of New Orleans, Mayor's Office, Cities for Climate Protection Workshop Organizing Committee, Mayor's Office of Environmental Affairs, Sept. 2000.
- 1998: American Society of Mechanical Engineers, Session co-chair for IMECE conference, "Environmental Heat Transfer" session, 1998.
- 1998: U.S. Global Climate Change Research Program – National Assessment, Member, Steering Committee for Gulf Coast Regional Assessment Workshop, Commerce, Industry, and Energy, session chair.
- 1997-2000: Global Warming International Conference, Member International Program Committee (1997), Session chair, GW9, Hong Kong (1998) and GW11, Boston (2000).