

SUMMARY OF PERSONAL RECORD

Stefano Schiavon, PhD

Current Position

Associate Professor of Architecture, Department of Architecture
Associate Director, Center for Environmental Design Research
University of California, Berkeley, USA

Education

PhD Building Science-Energy Engineering (2009) at University of Padua, Italy
MSc Mechanical Engineering summa cum laude (2005) at University of Padua, Italy
Visiting student at Technical University of Denmark and Tsinghua University, China

Principal Field of Interests

Indoor Environment Quality; Mechanical Systems; Sustainable Building Design; Building Energy Efficiency; Thermal Comfort Wellbeing; Post-Occupancy Evaluation; Indoor Air Quality;

Major Honors and Awards:

3 Building and Environment 2018 Best Paper Award
Best Paper Award PLEA 2018
Faculty Award for Excellence in Postdoctoral Mentoring 2017
Ralph G. Nevins Physiology and Human Environment Award 2013
REHVA young scientist award 2010

Employment History

Assistant professor at Polytechnic University of Turin, Italy
Postdoctoral scholar and assistant professional researcher at University of California, Berkeley

Publications Google Scholar citations: 3007; H-index: 29

Peer-reviewed Papers in International Journals: 68
Books: 1
Peer-reviewed Papers in Conference Proceedings: 61
Journal Papers in Italian: 11
Editorials: 1
Reports: 18
Software programs published: 4
Media: 17
Wikipedia: 114 edited pages, 349 live edits

Invited lectures/Keynotes/Seminars 65

Postdoctoral Scholar 13

Patent application 1

Grants ~\$11M

RESUME OF STEFANO SCHIAVON

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Education

- 2006-2009 PhD in Energy Engineering (Building Science). University of Padua, Italy.
Title: Energy savings with personalized ventilation and cooling fans.
Supervisors: Roberto Zecchin (University of Padua); Arsen Melikov (Technical University of Denmark); Xianting Li (Tsinghua University)
- 1999-2005 MSc in Mechanical Engineering (5-year program). University of Padua, Italy. 110/110 summa cum laude

Visiting Scholar

- 12/'15-06/'16 Guest Faculty. Earnest Orlando Lawrence Berkeley National Laboratory. Building Technologies and Urban Systems / Energy Technologies Area
- 05-08/'14-07-08/'15 Visiting Scholar at Singapore Berkeley Building Efficiency and Sustainability in the Tropics (SinBerBEST). In collaboration with Nanyang Technological University (NTU) and the National University of Singapore (NUS)
- 05-07/'16-05-06/'17-07-08/'18
- 07/19-2010/'07-06/'08 Guest PhD student at the International Centre for Indoor Environment and Energy-DTU, Denmark. Supervisor A. Melikov.
- 02/'06-01/'07 Guest PhD student at the Department of Building Science, School of Architecture, Tsinghua University (清华大学), Beijing. China. Supervisor Xianting Li.
- 06/'04-06/'05 Guest MS student International Centre for Indoor Environment and Energy-DTU, Denmark with the EU program Erasmus. Supervisor Bjarne W. Olesen and A. Melikov. Master thesis on displacement ventilation.

Specific Field of Interests

Sustainable Building Design; Building Energy Efficiency; Indoor Environment Quality; Wellbeing; Thermal Comfort; Indoor Air Quality; Mechanical Systems; Post-Occupancy Evaluation; Energy Simulation.

Employment History

<i>Employer</i>	<i>Position</i>	<i>Beginning</i>	<i>Ending</i>
University of California, Berkeley	Associate Professor	07/2017	Present
University of California, Berkeley	Assistant Professor	07/2011	06/2017
Polytechnic University of Turin	Assistant Professor	12/2010	6/2011
University of California, Berkeley	Assistant Pro. Researcher	05/2010	04/2011
University of California, Berkeley	Postdoctoral Scholar	01/2009	05/2010

RESEARCH

Publications

Peer-review Papers in International Journals

68. Kent M, Schiavon S, Jakubiec A. 2020. A dimensionality reduction method to select the most representative daylight illuminance distributions. *Journal of Building Performance Simulation*. <https://doi.org/10.1080/19401493.2019.1711456>
67. Dawe M, Raftery P, Woolley J, Schiavon S, Bauman F. 2019. Comparison of mean radiant and air temperatures in mechanically-conditioned commercial buildings from over 200000 field and laboratory measurements. *Energy and Buildings*. Volume 206. 109582
<https://doi.org/10.1016/j.enbuild.2019.109582>
<https://escholarship.org/uc/item/2sn4v9xr>
66. Schweiker M, et al 95 authors. 2019. The Scales Project, a Cross-National Dataset on the Interpretation of Thermal Perception Scales. *Scientific Data*. Volume 6 (1): 1–10. Open Source
<https://doi.org/10.1038/s41597-019-0272-6>
65. Pantelic J, Liu S, Pistore L, Licina D, Vannucci M, Sadrizadeh S, Ghahramani A, Gilligan B, Sternberg E, Kampschroer K, Schiavon S. 2019. Personal CO₂ cloud: Laboratory measurements of metabolic CO₂ inhalation zone concentration and dispersion in a typical office desk setting. *Journal of Exposure Science & Environmental Epidemiology*, 1–10. Open source
<https://doi.org/10.1038/s41370-019-0179-5>
64. Liu S, Schiavon S, Das HP, Jin M, and Spanos CJ. 2019. Personal thermal comfort models with wearable sensors. *Building and Environment*. Volume 162: 106281.
<https://doi.org/10.1016/j.buildenv.2019.106281>
<https://escholarship.org/uc/item/3fb0p5gk>
63. Yang B, Melikov A, Kabanshi A, Zhang C, Bauman F, Cao G, Awbi H, Wigö H, Niu JL, Cheong D, Tham KW, Sandberg M, Nielsen P, Kosonen R, Yao R, Kato S, Sekhar C, Schiavon S, Karimipannah T, Li X, Lin JZ. 2019. A review of advanced air distribution methods - theory, practice, limitations and solutions. *Energy and Buildings*. Volume 202. 109359
<https://doi.org/10.1016/j.enbuild.2019.109359>
<https://escholarship.org/uc/item/85x6r3wv>
62. Pei G, Rim D, Schiavon S, Vannucci M. 2019. Effect of sensor position on the performance of CO₂-based demand controlled ventilation. *Energy and Buildings*. Volume 202, 109358.
<https://doi.org/10.1016/j.enbuild.2019.109358>
<https://escholarship.org/uc/item/8n23p8c4>
61. Raftery P, Fizer J, Chen WH, He YD, Zhang H, Arens E, Schiavon S, Paliaga G. 2019. Ceiling fans: Predicting indoor air speeds based on full scale laboratory measurements. *Building and Environment*. Volume 155, 210-223.
<https://doi.org/10.1016/j.buildenv.2019.03.040>
<https://escholarship.org/uc/item/4p479663>
60. Soebarto V, Zhang H, Schiavon S. 2019. A thermal comfort environmental chamber study of older and younger people. *Building and Environment*. Volume 155, 1-14.
<https://doi.org/10.1016/j.buildenv.2019.03.032>
<https://escholarship.org/uc/item/00h9x985>
59. Li P, Parkinson T, Brager G, Schiavon S, Cheung T, Froese T. 2019. A data-driven approach to defining acceptable temperature ranges in building. *Building and Environment*. Volume 153, 302-312.

<https://doi.org/10.1016/j.buildenv.2019.02.020>
<https://escholarship.org/uc/item/4qm4c7bk>

58. Cheung T, Schiavon S, Parkinson T, Li P, Brager G. 2019. Analysis of the accuracy on PMV – PPD model using the ASHRAE Global Thermal Comfort Database II. *Building and Environment*. Volume 153, 205-217.
<https://doi.org/10.1016/j.buildenv.2019.01.055>
<https://escholarship.org/uc/item/2kd0135t>
57. Kent MG, Cheung T, Altomonte S, Schiavon S, Lipczynska A. 2018. A Bayesian method of evaluating discomfort due to glare: The effect of order bias from a large glare source. *Building and Environment*. Volume 146, 258-267. Open source.
<https://doi.org/10.1016/j.buildenv.2018.10.005> data available at <https://doi.org/10.6078/D14Q14>
56. Ko WH, Schiavon S, Brager G, Levitt B. 2018. Ventilation, thermal and luminous autonomy metrics for an integrated design process. *Building and Environment*. Volume 145, 153-165.
<https://doi.org/10.1016/j.buildenv.2018.08.038>
<https://escholarship.org/uc/item/81t2t9vd>
55. Jia R, Jin B, Jin M, Zhou Y, Konstantakopoulos IC, Zou H, Kim J, Li D, Gu W, Arghandeh R, Nuzzo P, Schiavon S, Sangiovanni-Vincentelli AL, Spanos JC. Design Automation for Smart Building Systems. *Proceedings of the IEEE*. Volume 6 (9), 1680-1699
<https://doi.org/10.1109/JPROC.2018.2856932>
<https://escholarship.org/uc/item/54r6027g>
54. Woolley J, Schiavon S, Bauman F, Raftery P, Pantelic J. 2018. Side-by-side laboratory comparison of space heat extraction rates and thermal energy use for radiant and all-air systems. *Energy and Buildings*. Volume 176, 139-150.
<https://doi.org/10.1016/j.enbuild.2018.06.018>
<https://escholarship.org/uc/item/65w8v0rt>
53. Földváry V, Cheung T, Zhang H, de Dear R, Parkinson T, Arens E, Chun C, Schiavon S, Luo M, Brager G, Li P, Kaam S et al. 2018. Development of the ASHRAE Global Thermal Comfort Database II. *Building and Environment*. Volume 142, 502-512. **Building and Environment 2018 Best Paper Award**
<https://doi.org/10.1016/j.buildenv.2018.06.022> data available at <https://doi.org/10.6078/D1F671>
<https://escholarship.org/uc/item/0dh6c67d>
52. Liu S, Lipczynska A, Schiavon S, Arens E. 2018. Detailed experimental investigation of air speed field induced by ceiling fans. *Building and Environment*. Volume 142, 342-360.
<https://doi.org/10.1016/j.buildenv.2018.06.037> - data available at <https://doi.org/10.6078/D1V67R>
<https://escholarship.org/uc/item/2mk3n264>
51. Tang H, Raftery P, Liu X, Schiavon S, Woolley J, Bauman FS. 2018. Performance analysis of pulsed flow control method for radiant slab system. *Building and Environment*. Volume 127, 107-119.
<https://doi.org/10.1016/j.buildenv.2017.11.004>
<https://escholarship.org/uc/item/31s4x6jr>
50. Lipczynska A, Schiavon S, Graham L. 2018. Thermal comfort and self-reported productivity in an office with ceiling fans in the tropics. *Building and Environment*. Volume 135, 202-212.
<https://doi.org/10.1016/j.buildenv.2018.03.013>
<https://escholarship.org/uc/item/80b3458w>
49. Pantelic J, Schiavon S, Ning B, Burdakis E, Raftery P, Bauman F. 2018. Full scale laboratory experiment on the cooling capacity of a radiant floor system. *Energy and Buildings*. Volume 170, 134-144.
<https://doi.org/10.1016/j.enbuild.2018.03.002>
48. Liu S, Yin L, Schiavon S, Ho WK, Ling KV. 2018. Coordinate control of air movement for optimal thermal comfort. *Science and Technology for the Built Environment*.

<https://doi.org/10.1080/23744731.2018.1452508>
www.escholarship.org/uc/item/0m91d1t2

47. Kim J, Schiavon S, Brager G. 2018. Personal comfort models – A new paradigm in thermal comfort for occupant-centric environmental control. *Building and Environment*. Volume 129, 96-106.
<https://doi.org/10.1016/j.buildenv.2018.01.023>
<https://escholarship.org/uc/item/18d174zs>
46. Kim J, Zhou Y, Schiavon S, Raftery P, Brager G. 2018. Personal comfort models: Predicting individuals' thermal preference using occupant heating and cooling behavior and machine learning. *Building and Environment*. Volume 129, 96-106. *Building and Environment 2018 Best Paper Award*
<https://doi.org/10.1016/j.buildenv.2017.12.011>
<https://escholarship.org/uc/item/54n6b7m3>
45. Jin M, Liu S, Schiavon S, Spanos C. 2018. Automated mobile sensing: Towards high-granularity agile indoor environmental quality monitoring. *Building and Environment*. Volume 127, 268-276. *Building and Environment 2018 Best Paper Award*
<https://doi.org/10.1016/j.buildenv.2017.11.003>
<https://escholarship.org/uc/item/1kj1v33r>
44. Sekhar C, Anand P, Schiavon S, Tham KW, Cheong D, Saber E. 2018. Adaptable cooling coil performance during part loads in the tropics—A computational evaluation. *Energy and Buildings*. Volume 159, 148-163.
<https://doi.org/10.1016/j.enbuild.2017.10.086>
<https://escholarship.org/uc/item/176977qw>
43. Karmann C, Schiavon S, Graham L, Raftery P, Bauman F. 2017. Comparing temperature and acoustic satisfaction in 60 radiant and all-air buildings. *Building and Environment*. Volume 126, 431-441.
<https://doi.org/10.1016/j.buildenv.2017.10.024>
<http://escholarship.org/uc/item/3nh8q2bk>
42. Karmann C, Bauman F, Raftery P, Schiavon S and Koupriyanov. 2018. Effect of acoustical clouds coverage and air movement on radiant chilled ceiling cooling capacity. *Energy and Buildings*. Volume 158, 939-949.
<https://doi.org/10.1016/j.enbuild.2017.10.046>
<https://escholarship.org/uc/item/80h2t038>
41. Altomonte S, Schiavon S, Kent M, Brager G. Indoor environmental quality and occupant satisfaction in green-certified buildings. *Building Research & Information*. Open source
<http://dx.doi.org/10.1080/09613218.2018.1383715>
40. Duarte C, Raftery P, Schiavon S. 2017. Development of whole building energy models for detailed energy insights of a large office building with green certification rating in Singapore. *Energy Technology*. Open source
<http://dx.doi.org/10.1002/ente.201700564>
39. Xu Z, Hu G, Spanos C, Schiavon S. 2017. PMV-based event-triggered mechanism for building energy management under uncertainties. *Energy and Buildings*. Volume 152, 73-85.
<http://dx.doi.org/10.1016/j.enbuild.2017.07.008>
<http://escholarship.org/uc/item/2z597468>
38. Altomonte S, Saadounia A, Kent M, Schiavon S. 2017. Satisfaction with indoor environmental quality in BREEAM and non-BREEAM certified office buildings. *Architectural Science Review*. Volume 4, 343-355. Open source.
<http://dx.doi.org/10.1080/00038628.2017.1336983>

37. Cheung T, Schiavon S, Gall E, Jin M, Nazaroff W. 2017. Longitudinal assessment of thermal and perceived air quality acceptability in relation to temperature, humidity, and CO2 exposure in Singapore. *Building and Environment*. Volume 115, 80-90
<http://dx.doi.org/10.1016/j.buildenv.2017.01.014>
www.escholarship.org/uc/item/483474qj
36. Liu S, Schiavon S, Kabanshi A, Nazaroff WW. 2017. Predict percentage dissatisfied with ankle draft. *Indoor Air*. Volume 27(4), 852-862.
<https://doi.org/10.1111/ina.12364> data available at: <https://doi.org/10.15146/R3QX24>
<http://www.escholarship.org/uc/item/9076254n>
35. Karmann C, Bauman F, Raftery P, Schiavon S, Frantz W, Roy K. 2017. Cooling capacity and acoustical performance of radiant slab systems with free-hanging acoustical clouds. *Energy and Buildings*. Volume 138, 676-686.
<http://dx.doi.org/10.1016/j.enbuild.2017.01.002>
<http://escholarship.org/uc/item/8r07k5g3>
34. Ning B, Schiavon S, Bauman F. 2017. A novel classification scheme for design and control of radiant system based on thermal response time. *Energy and Buildings*. Volume 137, 38-45.
<http://dx.doi.org/10.1016/j.enbuild.2016.12.013>
<http://escholarship.org/uc/item/2j75g92w>
33. Liu S, Yin L, Ho WK, Ling KV, Schiavon S. 2017. A tracking cooling fan using geofence and camera-based indoor localization. *Building and Environment*. Volume 114, 36-44
<http://dx.doi.org/10.1016/j.buildenv.2016.11.047>
<https://escholarship.org/uc/item/5br8q4x4>
32. Karmann C, Schiavon S, Bauman F. 2017. Thermal comfort in buildings using radiant vs. all-air systems: A critical literature review. *Building and Environment*. Volume 111, 123-131
<http://dx.doi.org/10.1016/j.buildenv.2016.10.020>
www.escholarship.org/uc/item/1vb3d1j8
31. Schiavon S, Yang B, Donner Y, Chang VW-C, Nazaroff WW. 2016. Thermal comfort, perceived air quality and cognitive performance when personally controlled air movement is used by tropically acclimatized persons. *Indoor Air*.
<http://dx.doi.org/10.1111/ina.12352>
<http://escholarship.org/uc/item/7f01n291>
30. Feng JD, Schiavon S, Bauman F. 2016. New method for the design of radiant floor cooling systems with solar radiation. *Energy and Buildings*. Volume 125, 9-18.
<http://dx.doi.org/10.1016/j.enbuild.2016.04.048>
www.escholarship.org/uc/item/5sj3h2s5
29. Gall E, Cheung T, Luhung I, Schiavon S, Nazaroff WW. 2016. Real-time monitoring of personal exposure to carbon dioxide. *Building and Environment*. Volume 104, 59-67.
<http://dx.doi.org/10.1016/j.buildenv.2016.04.021>
<http://escholarship.org/uc/item/0q1269cv>
28. Schiavon S, Rim D, Pasut W, Nazaroff WW. 2016. Sensation of draft at uncovered ankles for women exposed to displacement ventilation and underfloor air distribution systems. *Building and Environment*. Volume 96, 228-236.
<http://dx.doi.org/10.1016/j.buildenv.2015.11.009>
<http://escholarship.org/uc/item/4p692575>
27. Raftery P, Bauman F, Schiavon S, Epp T. 2015. Laboratory testing of a displacement ventilation diffuser for underfloor air distribution systems. *Energy and Building*. Volume 108, 82-91.

- <http://dx.doi.org/10.1016/j.enbuild.2015.09.005>
<http://escholarship.org/uc/item/9qz2w733>
26. Schiavon S, Bauman F, Tully B, and Rimmer J. 2015. Chilled ceiling and displacement ventilation system: Laboratory study with high cooling load. *Science and Technology for the Built Environment (Previously HVAC&R)*. Volume 21(7), 944-956.
<http://dx.doi.org/10.1080/23744731.2015.1034061>
<http://escholarship.org/uc/item/58m8302p>
 25. Rim D, Schiavon S, Nazaroff WW. 2015. Energy and cost associated with ventilating office buildings in a tropical climate. *PLoS ONE* 10(5): e0127930. Open source.
<http://dx.doi.org/10.1371/journal.pone.0127930>
 24. Yang B, Schiavon S, Sekhar C, Cheong KW, Tham KW, Nazaroff WW. 2015. Cooling efficiency of a brushless direct current stand fan. *Building and Environment*. 196-204.
<http://dx.doi.org/10.1016/j.buildenv.2014.11.032>
<http://escholarship.org/uc/item/0767n79h>
 23. Arens E, Hoyt T, Zhou X, Huang L, Zhang H, and Schiavon S. September 2014. Modeling the comfort effects of short-wave solar radiation indoors. *Building and Environment*, Volume 88, 3-9.
<http://dx.doi.org/10.1016/j.buildenv.2014.09.004>
<http://escholarship.org/uc/item/89m1h2dg>
 22. Feng J, Bauman F, Schiavon S. December 2014. Experimental comparison of zone cooling load between radiant and air systems. *Energy and Buildings*, Volume 84, 152-159.
<http://dx.doi.org/10.1016/j.enbuild.2014.07.080>
<http://escholarship.org/uc/item/9dq6p2j7>
 21. Schiavon S, Webster T, Dickerhoff D, Bauman F. October 2014. Stratification prediction model for perimeter zone UFAD diffusers based on laboratory testing with solar simulator. *Energy and Buildings*, Volume 82, 786-794.
<http://dx.doi.org/10.1016/j.enbuild.2014.07.056>
<http://escholarship.org/uc/item/14v2v0fc>
 20. Schiavon S, Altomonte S. July 2014. Influence of factors unrelated to environmental quality on occupant satisfaction in LEED and non-LEED certified buildings. *Building and Environment*, Volume 77, 148-159.
<http://dx.doi.org/10.1016/j.buildenv.2014.03.028>
[www.escholarship.org/uc/item/52w3025m](http://escholarship.org/uc/item/52w3025m)
Top 25 most downloaded articles in Building and Environment in April-June 2014.
 19. Schiavon S, Hoyt T, Piccioli A. August 2014. Web application for thermal comfort visualization and calculation according to ASHRAE Standard 55. *Building Simulation*, Volume 7 (4), 321-334.
<http://dx.doi.org/10.1007/s12273-013-0162-3>
<http://escholarship.org/uc/item/4db4q37h>
 18. Lee KH, Schiavon S. March 2014. Influence of three dynamic predictive clothing insulation models on building energy use, HVAC sizing and thermal comfort. *Energies*, Volume 7, 1917-1934.
<http://dx.doi.org/10.3390/en7041917>
<http://escholarship.org/uc/item/3sx6n876>
 17. Fuertes G, Schiavon S. June 2014. Plug load energy analysis: The role of plug load in LEED certification and energy modeling. *Energy and Building*, Volume 76, 328-335.
<http://dx.doi.org/10.1016/j.enbuild.2014.02.072>
<http://escholarship.org/uc/item/8fs0k03g>

16. Bauman F, Feng J, Schiavon S. December 2013. Cooling load calculations for radiant systems: Are they the same as traditional methods? ASHRAE Journal, 14-20.
<http://escholarship.org/uc/item/6px642bj>
15. Heinzerling D, Schiavon S, Webster T, Arens E. December 2013. Indoor environmental quality models: literature review and a proposed weighting and classification scheme. Building and Environment, Volume 70, 210-222.
<http://dx.doi.org/10.1016/j.buildenv.2013.08.027>
<http://escholarship.org/uc/item/5ts7j0f8>
14. Altomonte S, Schiavon S. July 2013. Occupant satisfaction in LEED and non-LEED certified buildings. Building and Environment, Volume 68, 66-76.
<http://dx.doi.org/10.1016/j.buildenv.2013.06.008>
<http://escholarship.org/uc/item/4j61p7k5>
13. Kang KN, Song D, Schiavon S. June 2013. Correlations in thermal comfort and natural wind. Journal of Thermal Biology, Volume 38 (7), 419-426.
<http://dx.doi.org/10.1016/j.jtherbio.2013.06.001>
12. Feng J, Schiavon S, Bauman F. July 2013. Cooling load differences between radiant and air systems. Energy and Buildings, Volume 65, 301-321.
<http://dx.doi.org/10.1016/j.enbuild.2013.06.009>
<http://escholarship.org/uc/item/7jh6m9sx>
11. Schiavon S, Lee KH. January 2013. Dynamic predictive clothing insulation models based on outdoor air and indoor operative temperatures. Building and Environment, Volume 59, 250-260.
<http://dx.doi.org/10.1016/j.buildenv.2012.08.024>
<http://escholarship.org/uc/item/3338m9qf>
10. Lee KH, Schiavon S, Webster T, Bauman F. March 2012. Thermal decay on the underfloor air distribution (UFAD) systems: Fundamentals and influence on system performance. Applied Energy, Volume 92 (1), 197-207.
<http://dx.doi.org/10.1016/j.apenergy.2011.09.011>
<http://escholarship.org/uc/item/6tn9246f>
9. Schiavon S, Bauman F, Tully B, and Rimmer J. February 2012. Room air stratification in combined chilled ceiling and displacement ventilation systems. HVAC&R Research, Volume 18 (1-2), 147-159.
<http://dx.doi.org/10.1080/10789669.2011.592105>
<http://escholarship.org/uc/item/980931rf>
8. Frontczak M, Schiavon S, Goins J, Arens E, Zhang H, and Wargocki P. April 2012. Quantitative relationships between occupant satisfaction and aspects of indoor environmental quality and building design. Indoor Air, Volume 22 (2), 119-131.
<http://dx.doi.org/10.1111/j.1600-0668.2011.00745.x>
<http://escholarship.org/uc/item/1wc7t219>
7. Schiavon S, Lee KH, Bauman F, and Webster T. March 2011. Simplified calculation method for design cooling loads in underfloor air distribution (UFAD) systems. Energy and Buildings, Volume 43 (2-3), 517-528.
<http://dx.doi.org/10.1016/j.enbuild.2010.10.017>
<http://escholarship.org/uc/item/5w53c7kr>
6. Bauman F, Schiavon S, Webster T, and Lee KH. 2010. Cooling Load Design Tool for UFAD Systems. ASHRAE Journal. September, 62-71.
<http://www.escholarship.org/uc/item/9d8430v3>

5. Schiavon S, Lee KH, Bauman F, and Webster T. Aug 2010. Influence of raised floor on zone design cooling load in commercial buildings. *Energy and Buildings*, Volume 42 (5), 1182-1191. <http://dx.doi.org/10.1016/j.enbuild.2010.02.009>
<http://escholarship.org/uc/item/2bv611dt>
4. Schiavon S, Melikov A, and Sekhar C. May 2010. Energy saving strategies with personalized ventilation in tropics. *Energy and Buildings* Volume 42 (5), 699-707. <http://dx.doi.org/10.1016/j.enbuild.2009.11.009>
<http://escholarship.org/uc/item/6mf6n9v9>
3. Schiavon S, and Melikov A. Nov 2009. Introduction of a cooling fan efficiency index. *HVAC&R Research Journal* Volume 5 (6), 1121-1141. <http://dx.doi.org/10.1080/10789669.2009.10390882>
<http://escholarship.org/uc/item/4ph1m7t5>
2. Schiavon S, and Melikov A. May 2009. Energy-saving strategies with personalized ventilation in cold climates. *Energy and Buildings* Volume 41 (10), 543-550. <http://dx.doi.org/10.1016/j.enbuild.2008.11.018>
<http://escholarship.org/uc/item/09q0q1rb>
1. Schiavon S, and Melikov A. May 2008. Energy saving and improved comfort by increasing air movement. *Energy and Buildings* Volume 40 (10), 1954-1960. <http://dx.doi.org/10.1016/j.enbuild.2008.05.001>
<http://escholarship.org/uc/item/6xg815xj>

Books

1. Raisa V, Schiavon S, and Zecchin R. 2010. *Teoria e tecnica della ventilazione: soluzioni per l'edilizia residenziale e per il piccolo terziario*, pp 418. Editoriale Delfino. (In Italian). Theory and practice of ventilation: applications for residential and small commercial buildings.

Peer-reviewed Papers in Conference Proceedings

61. Li J, Wan MP, Schiavon S, Tham KW, Zuraimi S, Xiong J, Gall E. 2019. WIBS study of indoor and outdoor bioaerosols of a natural ventilated bedroom in Singapore. *Proceedings of Healthy Building 2019 Asia*, Changsha, China. October 22-25.
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Wikipedia

Since November 2007 I personally edited 114 pages (total live edits: 349)

Hereafter a chronological list of the main pages that my students and I updated or created:

[Underfloor air distribution](#) (Created); [Mean radiant temperature](#) (Updated); [Cool roof](#) (Updated); [Blower door](#) (Updated); [Plug load](#) (Created); [Natural ventilation](#) (Updated); [Dedicated outdoor air systems](#) (Created); [Radiant cooling](#) (Created); [Displacement ventilation](#) (Created); [Dry-bulb air temperature](#) (Updated); [Thermal comfort](#) (Updated); [Clothing insulation](#) (Updated); [Operative temperature](#) (Updated); [Vapor Barrier](#) (Updated); [LEED](#) (Updated); [Radiant heating and cooling system](#) (Created); [Passive cooling](#) (updated); [Thermal manikin](#) (Created) [Exploratorium](#) (Updated); [Evaporative Cooling in Buildings](#) (Created); [ASHRAE 55](#) (Created); [David Brower Center](#) (Updated); [Headquarter of David and Lucile Packard Foundation](#) (Created); [Thermal Bridge](#) (Update); [New York Times Building](#) (Updated); [Red List building materials](#) (Updated); [Ralph G. Nevins](#) (Created); [Cooling load](#) (Created); [Passive cooling](#) (Updated); [Solar access](#) (Updated); [Daylighting](#) (Updated); [Lighting](#) (Updated); [Thermal bridge](#) (Updated); [Evidence based design](#) (Update); [Airflow](#) (Update); [Primary energy](#) (Updated); [Building energy simulation](#) (Updated); [Immersion](#) (Updated); [Solar gain](#) (update and merge); [Community resilience](#) (Update); [Building Science](#) (Updated); [Alliesthesia](#) (Updated).

Software

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3. UFAD Cooling Airflow Design Tool. Version 2. 07/03/2014. The design tool is freely available [here](#). More info may be found [here](#). UFAD Cooling Airflow Design Tool. Version 1. 06/10/2010.
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Invention disclosure

2. Calibrated Thermal Comfort Control for a System of Fans. Stefano Schiavon – 40% (UCB), Weng Khuen Ho – 30% (NUS), Keck Voon Ling – 20% (NTU), Le Yin – 5% (NTU), Shuo Liu – 5% (NUS). Based on NRF CREATE program SinBerBEST \$55,625,000 2012-2017. July 2015. TD/198/15. BK-2016-007. This is now a provisional patent (filed 03/11/2016). US provisional application number 62/307,223.
1. Optimized Air Movement Control based on Occupants Feedback. Weng Khuen Ho – 30% (NUS), Stefano Schiavon – 30% (UCB), Keck Voon Ling – 20% (NTU), Le Yin – 10% (NTU), Shuo

Liu – 10% (NUS). Based on NRF CREATE program SinBerBEST \$55,625,000 2012-2017. June 2015. TD/174/15. BK-2015-203

Patent application

1. Stefano Schiavon – 40% (UCB), Weng Khuen Ho – 30% (NUS), Keck Voon Ling – 20% (NTU), Shuo Liu – 5% (NUS), Le Yin – 5% (NTU). Method of controlling a plurality of fans disposed in an area to provide thermal comfort control. World Intellectual Property Organization WO 2017/155472 A1, issued September 14, 2017. PCT Application NO: PCT/SG2017/050119.

Grants from external agencies

<i>Role, Status, Agency, Start date and End date and Title</i>	<i>Total (k\$)</i>
Co-PI. Current. BOSCH. 12/2019-4/2021. Study of the impact of VRF delivery air temperature and movement in an occupied space under controlled chamber conditions. (SGD 50k)	36.8
Co-PI. Current. Shanken. 7/2017-7/2019. Field study for radiant installation in BCA ZEB _{PLUS} .	78
PI and Theme Leader. 9/2017-9/2022. SinBerBEST. Singapore Berkeley Building Efficiency and Sustainability in the Tropics. ~\$170k/year for 5 years to be used in Berkeley. ~880k/year for 5 years for Theme A to be used in Singapore.	5250
PI. Current. Siebel Energy Institute. 5/2017-11/2017. Incorporating Real-time Thermal Comfort and Indoor Occupancy into Building Management Systems	50
PI. Past. Lawrence Berkeley National Laboratory. 5/2015 – 9/2015. Fabrication of Thermal Manikins for Testing in LBNL's FLEXLAB	20.3
Co-PI. Current. Electric Program Investment Charge. 07/2015-06/2018. Approved on 11/19/2014. Optimizing Radiant Systems for Energy Efficiency and Comfort	2,939.964
PI. Current. BEARS. 09/2014-03/2018. \$425,000. SinBerBEST. Singapore Berkeley Building Efficiency and Sustainability in the Tropics	425
PI. Past. BEARS. 10/2014-10/2015. Building performance modeling of SinBerBEST energy saving strategies	85
PI. Past, Berkeley Educational Alliance for Research in Singapore (BEARS)/SinBerBEST project. 2014 Energy Efficient Fan in Warm Indoor Environment--A Human Response Study in the Tropics	38.7
PI. Not funded, ASHRAE American Society of Heating, Refrig and Air Cond. 03/2014-02/2016. New Investigator Award	(65)
Co-PI. Past, California Energy Commission, PIER. 06/2012-01/2015. PON 12-503 Changing the rules: Innovative low-energy occupant-responsive HVAC controls and systems	1,629.4 Pier 192.5 CBE
PI. Not funded. U. S. Green Building Council. IEQ Strategies and Occupant Satisfaction: understanding what works.	(245.7)
Co-PI. Past. California Energy Commission, PIER. 06/2012-01/2015 Space conditioning in near zero-net-energy (ZNE) buildings.	300
Co-PI. Not funded. NSF National Science Foundation. 07/2012-06/2016. SEP: Smart People, Products and Building on the Smart Grid	(1,993)

Gift

<i>Agency, Start date and End date (if any) and Title</i>	<i>Total (k\$)</i>
Aeratron. 9/2017. Donation of 23 Ceiling Fan to the SinBerBEST project	19
Dyson. 05/2017. Donation of 75 Bladeless Fan to the SinBerBEST project.	22
Price Industries. 02/2014. Gift given to Ed Arens. Paul Raftery, Fred Bauman, and I worked on this gift.	15

TEACHING

Teaching Record

- S19 Arch 140 - Energy and Environment. Co-teaching with N. Brown. UC Berkeley.
- F18 Arch249 - Building Energy Simulations. UC Berkeley.
- F18 Arch 241 - Research Methods in Building Science. UC Berkeley.
- S18 Arch 298 - Faculty Research Colloquium. UC Berkeley.
- S18 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- F17 Arch 241 - Research Methods in Building Science. UC Berkeley.
- S17 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- F16 Arch 298 - Faculty Research Colloquium. UC Berkeley.
- F16 Arch249 - Building Energy Simulations. UC Berkeley.
- F15 Arch 249/ER 290 - Assessing Building Energy Use and Indoor Environmental Quality. Co-teaching with D. Callaway. UC Berkeley.
- F15 Arch 241 - Research Methods in Building Science. UC Berkeley.
- S15 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- F14 Arch 249 - Integrated Mechanical Design for Zero Energy Buildings. UC Berkeley.
- F14 Arch 249/ER 290 - Assessing Building Energy Use and Indoor Environmental Quality. Co-teaching with D. Callaway. UC Berkeley.
- S14 Arch 249 – Building Energy Simulations. UC Berkeley.
- S14 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- F13 Arch 249/ER 290 - Assessing Building Energy Use and Indoor Environmental Quality. Co-teaching with D. Callaway. UC Berkeley.
- F13 Arch 241 - Research Methods in Building Science. UC Berkeley.
- S13 Arch249 – Building Energy Simulations. UC Berkeley.
- S13 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- S12 Arch 249 - Climate and Energy Analysis for Bay Area buildings. UC Berkeley.
- S12 Arch 140 - Energy and Environment. Co-teaching with G. Brager. UC Berkeley.
- F11 Arch 241 - Research Methods in Building Science. UC Berkeley.
- S10 HVAC systems. Polytechnic University of Turin.TA
- F10 Arch 298 - Cooling: mechanical systems in commercial buildings. UC Berkeley.
- S08 Advanced Technology for Thermal Control. University of Padua. TA
- S07 Advanced Technology for Thermal Control. University of Padua. TA

PhD mentoring internal (Student. Title of the dissertation. Role. First work after graduation. Date)

Won Hee Ko. Main supervisor. Served in the Qualification exam (13/03/2019)

Jonathan Woolley. Main supervisor. Served in the Qualification exam (12/05/2017)

Carlos Duarte. Main supervisor. Served in the Qualification exam (12/11/2017)

Joyce Kim. Advancing comfort technology and analytics to personalize thermal experience in the built environment. Served as Chair of the Qualification exam (3/14/2016). Graduate in 04/2018.

Caroline Karmann. Thermal comfort and acoustic quality in buildings using radiant systems. Arup and Postdoc at EPFL. Served in the Qualification exam (2/6/2015) and Chair. 06/2017

Jingjuan Dove Feng. Design and Control of Hydronic Radiant Cooling Systems. Chair. LBNL/Taylor Engineering. 05/2014

PhD mentoring external

Daniela Maria Martinez Lopez. Served in the Qualification exam (2/4/2019). CEE

Baihong Jin. Served in the Qualification exam (5/2/2018). EECS

Antony Kim. Served as Chair of the Qualification exam (12/4/2017). Arch

Ioannis Konstantakopoulos. Served in the Qualification exam (10/13/2016). EECS

Olga Kavvada. Spatial modeling of decentralized wastewater infrastructure: The case for water reuse and nitrogen recovery. Served in the Qualification exam (04/29/2016) external advisor. CEE. 11/2017

Ming Jin. Data-efficient analytics for optimal human-cyber-physical systems. Served in the Qualification exam (4/29/2016). EECS 12/2017. Postdoc at UC Berkeley

Imran Sheikh. Served in the Qualification exam (S/2016). ERG

Alex Mead. Hardware-in-the-loop modeling and simulation methods for daylight systems in buildings. Served in the Qualification exam (12/07/2015) and external advisor. CEE. 05/2017

Aashish Ahuja. Simulation of innovative solutions for energy efficient building façades. Served as external dissertation committee member (12/2015) and external advisor. ME

Eric Burger. Served in the Qualification exam (11/20/2015), external dissertation committee member and external advisor. CEE.

Yuxun Zhou. Statistical learning for sparse sensing and agile operation. Served in the Qualification exam (5/5/2015), external dissertation committee member and external advisor. EECS. 05/2017

Matthew Vannucci. Human-centric Indoor Air Quality. Served in the Qualification exam (2/6/2015), external dissertation committee member and external supervisor. CEE. 06/2018.

Zhaoyi Kang. Efficient multi-level modeling and monitoring of end-use energy profile in commercial buildings. Served in the Qualification exam (03/01/2013), external dissertation committee member and external advisor. EECS. 06/2015

Monika Frontczak. Human comfort and self-estimated performance in relation to indoor environment parameters and building features. Main supervisor Pawel Wargocki. Civil Engineer at Asplan Viak. Norway. 11/2011

MS mentoring

Megan Dawe. Field evaluation of occupant satisfaction and energy performance in eight LEED-certified buildings using radiant systems. 06/2019

Sebastian Cohn. Development of a Personal Heater Efficiency Index. Association for Energy Affordability. 09/2017

Jared Landsman. Performance, Prediction and Optimization of Night Ventilation across Different Climates. Integral Group. 06/2016

Priya Ghandi. Commercial office plug load energy consumption trends and the role of occupant behavior. WSP Flack + Kurtz. 06/2015

Kristine Walker. Indoor environment quality in green-rated buildings: Understanding the people and conditions affecting performance. Chair. PG&E. 06/2015

Bin Chen. Assessment and Improvements of the CBE Underfloor Air Distribution (UFAD) Cooling Load Design Tool. Chair. WSP Flack + Kurtz. 06/2014

David Heinzerling. Commercial Building Indoor Environmental Quality Evaluation: Methods and Tools. Chair. Taylor Engineering. 12/2012

Alberto Piccioli. Thermal comfort visualizations on a web-based tool for ASHRAE 55 Standard. MS UCL (London). 3/26/2013

Gwen Fuertes. Simulated and Actual Energy Use: The Role of Plug Loads. Chair. MS. 05/2014. Leddy Maytum Stacy Architects

Brennan Less. Indoor air quality in 24 California residences designed as high performance green homes. LBNL. 12/2012

Chandrayee Basu. Critical Simulation Based Evaluation of Thermally Activated Building Systems (TABS) Design Models. UC Berkeley. 12/2012

Christian Ampò. Fan pressurization tests (blower door) in residential building in Italy 86/110 (7.5%/8% increment due to thesis). HVAC/AHU sale manager at FAIT Aeraulica, Italy. 04/2009

Clara Peretti. Evaluation of Indoor Environment Quality with a Web-based Occupant Satisfaction Survey: a Case Study in Northern Italy. 103/110 (4%/8% increment due to thesis). PhD (Padua University). 12/2009

Other mentoring

Hannah Wong. Undergraduate (math major). Thermal comfort tool. 2-8/2016

Feifei Cao. MArch. Oblique Explorations. Urban infrastructural hybrid. 1-5/2013

Elizabeth Kee. March. I guided her on the sustainable and indoor air quality design of a tuberculosis clinic and lab for the Karen department of Health and Welfare in a refugee camp. 05/2012-13

Shiyang Chen. Undergraduate. Thermal comfort tool graphical visualization. 7/2011-1/2012

Visiting Scholar

Kwow Wai Tham. National University of Singapore. 5-6/2019

Kwow Wai Tham and Chandra Sekhar. National University of Singapore. 5-6/2018

Veronica Soebarto. The University of Adelaide. 8/2017-1/2018

Sergio Altomonte. University of Nottingham. 8/2012-2/2013 and 7-9/2016 and 4-5/2017

Visiting Students

Haida Tang (Tsinghua U), Baisong Ning (Hunan U), Eleftherios Bourdakos (DTU), Alan Kabanshi (Galve U), Yongmei Xuan (Zhejiang U), Monika Frontczak (DTU), Alberto Piccioli (Bologna U).

Postdoctoral Students

13. Jose Ali Porras Salazar. PhD at University of BioBio. Main Supervisor 09/2019-now
12. Federico Tartarini. PhD at University of Wollongong. Main Supervisor. 06/2019-now
11. Thomas Parkinson. PhD at University of Sydney. Main Supervisor 05/2018-05/2019. Professional researcher at UC Berkeley.
10. Baisong Ning. PhD at Hunan University. Main Supervisor. 06/2018-now
9. Michael Kent. PhD at University of Nottingham. Main Supervisor. 09/2018-now
8. Asit Mishra. PhD at Indian Institute of Technology Kharagpur. Main Supervisor 05/2018-now

7. Liu Shuo. PhD at National University of Singapore. Main Supervisor 10/2016-09/2017. Huawei
6. Aleksandra Lipczyńska. PhD at Silesian University of Technology, Poland and Technical University of Denmark. Main supervisor 1/2016-12/2018
5. Dexiang Zhou. PhD at Nanyang Technological University. Main supervisor. 01/2016-04/2017
4. Chin To (Toby) Cheung. PhD at Honk Kong Polytechnic University. Main supervisor. 10/2015-now
3. Shichao Liu. PhD at University of Texas Austin. Main supervisor. 01/2015-12/2017. Assistant Professor at Worcester Polytechnic Institute (WPI)
2. Donghyun Rim. PhD at University of Texas Austin. Co-supervisor with Bill Nazaroff. I supervise roughly 20% of his research time.01/2013-06/2014. Assistant Professor at The Pennsylvania State University
1. Bin Yang. PhD at Technical University of Denmark, National University of Singapore. Co-supervisors with Bill Nazaroff. I supervise roughly 50% of his research time. 03/2013-06/2014. Assistant Professor at Umeå University.

Professional researcher

Thomas Parkinson. PhD at University of Sydney. 5/2019-now

Jovan Pantelic. PhD at National University of Singapore. 1/2016-now

External PhD examiner

Roshanak Ashrafi. UNC Charlotte. 07/2019. PhD committee member.

Ardeshir Moftakhari. University of Texas at Austin. 5/2018-12/2019. PhD committee member.

Panu Mustakallio. Aalto University. 10/2017

Shan Xin. Nanyang Technological University. 11/2017

Fan Zhang. The University of Sydney. 05/2016

Jungsoo Kim. The University of Sydney. 09/2013

SERVICE

Conference activities

11th Windsor Conference. Windsor, UK. International Scientific Committee Advisory, reviewer. 8/2019-04/2020.

16th International Conference of the International Society of Indoor Air Quality & Climate (IA2020), Seoul, Korea. International Scientific Committee Advisory, Reviewer. 08/2019-07/2020

10th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (IAQVEC 2019), Bari, Italy. International Scientific Committee Advisory, Reviewer. 09/2018-09/2019

SimAUD 2019. Symposium on Simulation for Architecture and Urban Design. . International Scientific Committee Advisory and reviewer. Atlanta, Georgia. 09/2018-04/2019

Building Simulation 2019. Rome, Italy. Reviewer. 07/2018-09/2019.

Indoor Air 2018. Philadelphia, Pennsylvania. International Scientific Committee Advisory and reviewer. 01/2018-07/2018

SimAUD 2018 Conference. Delft, Netherlands. International Scientific Committee Advisory, reviewer 11/2017-06/2018

10th Windsor Conference. Windsor, UK. International Scientific Committee Advisory, reviewer. 8/2017-04/2018. Chaired a workshop on Personal Comfort Models.

Co-organized with Susan Ubbelohde and Christoph Reinhart DIVA DAY 2017 in Berkeley. 10/27/2017

International Roomvent and Ventilation 2018 Conferences. Espoo. Finland.
<http://www.roomventilation2018.org> International Scientific Committee Advisory, reviewer. 02/2017-06/2018

International Building Physics Conference. Syracuse, NY, USA. International Scientific Committee Advisory, reviewer. 02/2017-09/2018

Healthy Buildings Europe. Lublin, Poland. International Scientific Committee Advisory, reviewer. 10/2016-07/2017

9th Windsor Conference. Windsor, UK. International Scientific Committee Advisory, reviewer. 8/2015-04/2016

9th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (IAQVEC 2016), Seoul (Songdo), Korea. International Scientific Committee Advisory, Reviewer. 07/2015-10/2016

14th International Conference on Indoor Air Quality and Climate 2016. Ghent, Belgium. International Scientific Committee Advisory, reviewer, Chair. 06/2015-07/2016

Healthy Building America 2015. Boulder, Colorado, US. <http://hb2015-america.org> International Scientific Committee Advisory, reviewer. 12/2014-06/2015

9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE). 07/12-15/2015. Tianjin, China. International Scientific Committee Advisory, reviewer. 10/2015-07/2015

13th International Conference on Indoor Air Quality and Climate 2014. Hong Kong. International Scientific Committee Advisory, reviewer, Chair. 5/2013-08/2014

After 3.11: New Architecture + Engineering. Berkeley, US. Panelist. 2-3/2014

International Conference Counting the Cost of Comfort in a Changing World 2014. Windsor, UK. International Scientific Committee Advisory, reviewer. 8/2013-05/2014

International Conference RoomVent 2014. San Paulo, Brazil. International Scientific Committee Advisory, reviewer. 8/2013-10/2014

ASHRAE Indoor Air Quality 2013. Environmental health in low energy buildings. Vancouver, British Columbia, Canada. Reviewer. 5-10/2013

International Conference CLIMA 2013, Prague, Czech Republic. Section chair, reviewer. 8/2012-06/2013

2nd International Conference on Building Energy and Environment 2012, Boulder, Colorado, US. International Scientific Committee Advisory. 9/2011-08/2012

12th International Conference on Indoor Air Quality and Climate 2011, Austin, Texas, US. Conference attendance, oral presentation. 06/2011

IAQVEC 2010, Syracuse, New York, US. Chair, reviewer, oral presentation. 01-08/2010

SimBuild 2010 Building Simulation, New York, US. Reviewer. 01-08/2010

29th International AIVC Conference (Advanced building ventilation and environmental technology for addressing climate change issues), Kyoto, Japan. Poster presentation. 10/2008

11th International Conference on Indoor Air Quality and Climate, Copenhagen, Denmark. www.indoorair2008.org. Conference attendance, oral presentation. 08/2008

46th International Conference AICARR-Expocomfort, Milan, Italy. Conference attendance, oral presentation. 03/2008

10th International Conference on Air Distribution in Rooms, Roomvent 2007, Helsinki, Finland. Conference attendance, oral presentation. 06/2007

Peer Reviewer (*chronological order with date of first review in parenthesis*)

Nature Energy (04/17). Building Research & Information (08/14). Indoor and Built Environment (06/14). Indoor Air (12/12). Advances in Building Energy Research (11/12). Architectural Science Review (09/2011). Energy and Buildings (02/10). HVAC&R Research (08/09). Environmental Engineering Proceedings (06/09). Building and Environment (06/09). ASHRAE Journal (03/09); ASHRAE Transactions (03/09)

Professional activities

Association - role	Begin	End
Member of the Environmental Health Advisors Board at View	12/2019	ongoing
Member of the Editorial Board of the journal of Energy and Buildings (Elsevier)	10/2019	ongoing
Reviewer for grants at UNC Charlotte.	03/2019	04/2019
Reviewer for the Office of Research Administration at New York University Abu Dhabi	03/2018	ongoing
Advisor for the International WELL Building Institute - WELL Air & Thermal Comfort	06/2018	ongoing
Reviewer for WELL v2 standard	03/2018	05/2018
Member of the Editorial Board of the journal of Advances in Building Energy Research (Taylor & Francis)	02/2018	ongoing
Reviewer for the Research Grants Council (RGC) of Hong Kong	03/2015	ongoing
ASHRAE TC 6.5 Radiant Heating and Cooling– non voting member. http://sspc55.ashraepcs.org/	01/2015	ongoing
U.S. Green Building Council LEED Technical Advisory Group on Indoor Environmental Quality. Voting member	07/2014	07/2015
ASHRAE SPC 216 Methods of test for determining application data of overhead circulator fans. Voting member. We develop a standard from zero. It is now in public review.	03/2014	ongoing
Reviewer of the book: "Behind the green door: A critical look at sustainable architecture through 600 objects" by Rotor.	03/2014	03/2014
Alembic Goods. Advisory Board member	07/2013	ongoing
Cariplo Foundation (one of the European largest grant-making foundation). Advisor Board for the peer-reviewing of research projects www.fondazionecariplo.it	05/2013	05/2015

Offered Vice-Chair ASHRAE TC 2.1 "Physiology and Human Environment".	01/2013	01/2013
ASHRAE TRG7 Underfloor Air Distribution (UFAD) - corresponding Member. http://trg79-ufad.ashraetcs.org/	01/2011	01/2013
ASHRAE SSPC 55 Thermal environment conditions for human occupancy- non voting member. http://sspc55.ashraeecs.org/	06/2011	ongoing
ASHRAE TC 2.1 Physiology and human environment – corresponding member. http://tc21.ashraetcs.org/	01/2011	ongoing

Professional Memberships

ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers, Associate 2008-18; Member since 2018
 IBPSA US: International Building Performance Simulation Association – US chapter, since 2009
 SBSE: Society of Building Science Educators, since 2011
 BPSA IT: International Building Performance Simulation Association – IT chapter, 2011-13
 AICARR: Associazione Italiana Condizionamento dell’Aria Riscaldamento Refrigerazione, 2005-11
 BTES: Building Technology Educators Society, 2011-14

Honors and Awards

Date Honors and awards received by me for research achievements

- 1/ 19 Three out of three 2018 Best Paper Awards given by Building and Environment. Building and Environment journal received more than 3000 submissions in 2018, out of which 640 were published, and only three were selected for the award award, which is given in recognition of the papers’ originality, contributions to the field, quality of presentation, and soundness of the science. For the three papers see reference above. Kim et al (2018); Földváry et al (2018) and Jin et al (2018).
- 12/ 18 Best paper award at PLEA 2018. 34th International Conference on Passive and Low Energy Architecture, 10-12 Dec 2018, Hong Kong for the paper: "Karmann C, Schiavon S, Graham LT, Raftery P, Bauman F. 2018. Occupant satisfaction in 60 radiant and all-air buildings: Comparing thermal comfort and acoustical quality."
- 09/ 2017 Faculty Award for Excellence in Postdoctoral Mentoring given by The Berkeley Postdoctoral Association. "this award shows that you are going above and beyond your academic responsibilities by fostering your postdocs' professional and scientific development. We received great nominations this year and it was extremely challenging to decide... your nomination stood out and you deserved to win."
- 02/ 2013 Ralph G. Nevins Physiology and Human Environment Award 2013 by the American Society of Heating, Refrigeration and Air Conditioning Engineers (www.ashrae.org). The Ralph G. Nevins Physiology and Human Environment Award is given once each year to a young researcher who has distinguished himself in human’s response to the environment, which may include thermal, moisture, visual, acoustical, toxic, allergic, olfactory, vibrational, and microbiological effects on man’s health, comfort, and well being.
- 06/ 2010 REHVA young scientist award. The award is given for outstanding research work of a young researchers (less than 35 years old) on subjects covered by the fields of the European Federation of Heating Ventilation and Air Conditioning Associations (REHVA) competence. REHVA represent more than 100 000 engineers from 28 European countries.
- 10/ 2008 Best poster award at the 29th International AIVC Conference (Advanced building ventilation and environmental technology for addressing climate change issues), Kyoto, Japan.

Date Honors and awards to support research and traveling

- 10/08 Otto Mønsted's Fond to participate the 29th International AIVC Conference 14 – 16 October 2008, Kyoto, Japan.
- 04/08 Marie Curie Action grant to participate to a week international workshop at Technical University of Sofia, Bulgaria about Integrated Analysis of Building Envelope and Indoor Environment.
- 09/07 Aldo Gini foundation grant for studying at International Centre of Indoor Environment and Energy, DTU, Denmark.
- 04/07 Marie Curie Action grant to participate to a week international workshop at Technical University of Sofia, Bulgaria about ventilation and individually controlled environment.
- 01/06 Tsinghua University grant for guest PhD Beijing, China.
- 10/04 International Centre for Indoor Environment and Energy grant for guest MSc students, DTU, Denmark.
- 09/04 Aldo Gini foundation grant for studying at International Centre of Indoor Environment and Energy, DTU, Denmark.

Public lectures and presentations

- 66. "The future of cooling". CREATE Symposium on Climate Change. Singapore. 12/6/2019
- 65. "Move the air, don't cool it - Electric fans as alternative or augmentation to air conditioning for mitigation and adaptation to climate change". ICPA 2019. The 14th International Congress of Physiological Anthropology. Singapore. 10/24-27/2019
- 64. "First move the air, then cool it". International Built Environment Week at BCA Academy. Singapore. 09/02/2019
- 63. "Elevated air speed overview". SinBerBEST symposium. Singapore. 08/05/2019
- 62. "The accuracy of the PMV/PPD model and on what to do in simulations". IBPSA-USA SFBA chapter. San Francisco, US. 5/28/2019
- 61. Keynote lecture. "The Future of Thermal Comfort in a Warming Climate". SimAUD 2019. Atlanta, US. 04/8/2019
- 60. "Personalized Comfort Modeling for Occupant-centric Environmental Control". Presentation at the 2019 ASHRAE Winter Conference. Atlanta, US. 1/13/2019
- 59. "Energy efficient building technologies". CED Executive Education program "Thinking outside the walls: innovative strategies for affordable & sustainable housing". Berkeley, CA 03/23/2018.
- 58. "Personal thermal comfort models based on physiological parameters measured by wearable sensors". Windsor Conference, Windsor, UK. 04/12-15/2018.
- 57. "Personalize Comfort: Incorporating Real-time Thermal Comfort and Indoor Occupancy into Building Management Systems". Siebel Energy Institute Workshop "Digital Transformation: Smart Energy Systems and Beyond" in Turin, Italy. 2/15/2018
- 56. "Center for the Built Environment Overview". DIVA Day. Berkeley, CA. 10/28/2017
- 55. "Personalized comfort". AtelierTen. San Francisco, CA. 7/25/2018
- 54. "Increased air movement for thermal comfort and energy savings" WOHA, Singapore. 06/27/2017
- 53. "Quantified-self thermal comfort". Quantified Self Show&Tell. Berkeley, CA. 1/26/2017
- 52. "Building energy simulations" Energy policy and simulation in Northern California and Japan. Berkeley, CA. 11/10/2016
- 51. "Cooling load for radiant systems" IBPSA SF. Berkeley, CA. 10/26/2016
- 50. "Personalized comfort" MIT Building Technology Lecture Series. Massachusetts Institute of Technology. Cambridge, MA. 10/17/2016.

49. "Real-time personal continuous monitoring of air temperature, relative humidity, carbon dioxide, and thermal and perceived air quality acceptability in Singapore" and "Dynamic clothing model". Windsor Conference, Windsor, UK. 04/7-10/2016
48. "Annex 69 Subtask A: Collecting field data and modeling occupant adaptation". Presented for Ed Arens. University College of London. Annex 69 Workshop "Strategy and practice of adaptive thermal comfort in low energy buildings". London, UK. 04/06/2016
47. "CBE research program overview". Presentation at Nottingham University, Department of Architecture and Build Environment. Nottingham, UK. 04/05/2016.
46. "Thermal comfort and indoor air quality: CBE and SinBerBEST perspectives". Lecture at University of Padua. Padua, Italy. 03/30/2016.
45. "CBE research program overview". Presentation at Lawrence Berkeley National Laboratory. Berkeley, California. 03/15/2016
44. "Healthy Buildings". Lecture at University of Oregon, Department of Architecture, Arch 491/591 ECS, Professor Alison Kwok. Eugene, Oregon. 03/01/2016.
43. "Indoor Environmental Quality and Cognitive Performance when Personally Controlled Air Movement is Used by Tropically Acclimatized Persons" and "Energy assessment of SinBerBEST Technologies: Final results". SinBerBEST Annual Meeting. Singapore. 01/12-13/2016
42. "Whole building energy modeling of SinBerBEST technologies: Baseline model and examples of energy saving solutions" SinBerBEST Midreview. Singapore. 08/03/2015
41. "A classification scheme for radiant systems based on thermal time constant", "Effect of air temperature and personally controlled air movement on thermal comfort for tropically acclimatized persons", "Do radiant systems provide better thermal comfort than all-air systems? A short critical literature review" International Conference COBEE 2015. Tianjin, China. 07/12-15/2015
40. "Dynamic clothing model & CBE Thermal Comfort Tool" COBEE 2015 Workshop. Tianjin, China. 07/14/2015
39. "Cooling load differences between radiant and air systems" COBEE 2015 Workshop. Tianjin, China. 07/15/2015
38. "Indoor environmental quality and energy efficiency. Technical University of Crete. Chania, Greece. 06/18/2015
37. "Building occupant satisfaction in office buildings". NIOSH 1st International Symposium to Advance Total Worker Health, Bethesda, US. 09/7/2014
36. "Indoor environmental quality and energy efficiency: How to achieve both." Workshop of Building Efficiency (Peder Sather Center Grant). Berkeley, US. 9/15/2014
35. "Stratification prediction model for perimeter zone UFAD diffusers based on laboratory testing with solar simulator", "A comparison between two underfloor air distribution (UFAD) design", and "Sensation of draft at ankles for displacement ventilation and underfloor air distribution systems". International Conference Indoor Air 2014, Hong Kong. 07/8-11/2014
34. "Underfloor air distribution: An overview". International Conference Indoor Air 2014, Hong Kong. July 8.
33. "UFAD Cooling Load Design Tool". Stefano Schiavon. ASHRAE Winter meeting. New York. 01/21/2014.
32. "Unveiling the Built Environment: Energy Efficiency and Indoor Environmental Quality". SinBerBEST Annual Meeting. Singapore. 01/08/2014
31. "Occupant satisfaction and indoor environmental quality: What matters, LEED rating, and clothing behaviour". CERC-BEE Forum on Human Behavior and Integrated Design for High Performance Buildings, LBNL, Berkeley. 07/18/2013
29. "Temperature Stratification in a High Cooling Load Office with a Combined Chilled Ceiling and Displacement Ventilation System". 11th International Conference CLIMA 2013, Prague, Czech Republic. 06/17/2013

28. "Thermal comfort and air change effectiveness in a combined chilled ceiling and displacement ventilation system". With Fred Bauman and Julian Rimmer. Golden Gate ASHRAE, Oakland, CA. 02/21/2013.
26. "Design Zone Cooling Loads for Radiant Systems". Fred S. Bauman, Jingjuan Feng and Stefano Schiavon. ASHRAE Winter meeting. Dallas, TX. 01/28/2013.
25. "Climate analysis for sustainable building design". MUD course. Berkeley, US. 10/26/2012
24. "Introduction to the use of citations and RefWorks". Brown Bag Lunch, Berkeley, US. 09/04/2012
23. "Room Air Stratification and Ventilation Performance In Combined Chilled Ceiling and Thermal Displacement Ventilation Systems". ASHRAE Annual meeting, San Antonio, US. 06/04/2012
21. "UFAD cooling load design calculations". Optimizing energy and comfort performance of Underfloor Air Distribution Systems: Guidelines, tools, and lessons from a decade of research and practice. PG&E Pacific Energy Center, San Francisco, US. 04/18/2012
20. "Predictive clothing insulation model based on outdoor air and indoor operative temperatures". 7th Windsor Conference: The changing context of comfort in an unpredictable world Cumberland Lodge, Windsor, UK. 04/14/2012
19. "Underfloor air distribution and personal environmental control systems". LoCal meeting. Berkeley, US. 09/30/2011.
18. "Ventilation effectiveness in combined chilled ceiling and displacement ventilation systems". Indoor Air conference 2011, Austin, US. 06/05/2011.
17. "UFAD cooling airflow design tool", MIT, US. 02/10/2011.
16. "UFAD overview and cooling airflow design tool" and "Unveiling the built environment", Graduate School of Design, Harvard University, US. 02/8-9/2011.
15. "Wireless cart for the performance Measurement Protocol". Emerging Technologies Conference, section "Best Practices in the Emerging Technologies Field Testing". Sacramento, US. 11/8/2010.
14. "Room air stratification in combined chilled ceiling and displacement ventilation systems". IAQVEC conference, Syracuse, US. 08/17/2010.
13. "Energy analysis of personalized ventilation system". IAQVEC post conference workshop, Ottawa, Canada. 08/19/2010.
12. "UFAD cooling airflow design tool". CBE meeting. Berkeley, US. 04/22/2010.
11. "Energy analysis of a personalized ventilation system in a cold climate: influence of the supplied air temperature". The 29th International AIVC 2008 Conference Kyoto, Japan.
7. "Energy saving and improved comfort by increased air movement". 11th International Conference on Indoor Air Quality and Climate. Indoor Air 2008. Copenhagen, Denmark.
6. "Energy savings strategies of personalized ventilation" at 3rd workshop on PECS, EXHAUSTO. Denmark. 08/15/2008.
5. "Indoor Climate and Productivity in office buildings" at the 46th International Conference AICARR-Expocomfort, Milan, Italy. 03/12/2008.
4. "Saving energy with increased air velocity" 3-03/04/2008. Lyngby, ICIEE, DTU, Denmark. DTU-IBP-TU Muchen-Fraunhofer PhD student meeting.
3. "Saving energy with personalized micro environment (PEM)" about "Saving energy with increased air movement" Lyngby, ICIEE, DTU, Denmark. The workshop was organized by TNO and ICIEE. 10/9-10/2007.
2. "Design of Displacement Ventilation System and experimental Results" at the workshop on Advanced HVAC systems. Padua, Italy. 09/28/2007.
1. "An Index for Evaluation of Air Quality Improvement in Rooms with Personalized Ventilation Based on Occupied Density and Normalized Concentration" at the International Conference on Air Distribution in Rooms, Roomvent 2007. Helsinki, Finland, 06/13-15/2007.