SUMMARY OF PERSONAL RECORD

Stefano Schiavon, PhD

Current Position

Associate Professor of Architecture, Department of Architecture, College of Environmental Design
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[1]

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, USA

Publications Google Scholar citations: 2245; H-index: 25

Peer-reviewed Papers in International Journals: 61
Books: 1
Peer-reviewed Papers in Conference Proceedings: 60
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[2] 62

Postdoctoral Scholar 11

Patent application 1

Grants $11,087,000

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 Demark); 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 05-07/'16 05-06/'17 07-08/'18	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)
10/'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

Employer	***Position***	***Beginning***	***Ending***
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

Short term consultancy

1. Google. December 2015. REWS/Aclima science advisory Panel. Assessment of Aclima sensor network for Google.

RESEARCH

Publications

Peer-review Papers in International Journals

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 fill scale laboratory measurements. Building and Environment. Volume 155, 210-223.
https://doi.org/10.1016/j.buildenv.2019.03.040

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.
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, Lipcznska 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

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. 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
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
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

60. Zani A Richardson HD, Tono A, Schiavon S, Arens E. 2019. A simulation-based design analysis for the assessment of indoor comfort under the effect of solar radiation. Proceedings of SimAUD 2019, Atlanta, USA. April 7-9.
https://escholarship.org/uc/item/5vb3x9d6

59. Zani A, Richardson HD, Tono A, Schiavon S, Arens E. 2019. Annual Radiation Discomfort: A new climate-based framework for modeling short-wave solar radiation in indoor spaces. Proceedings of Building Simulation 2019 Conference. Rome, Italy. Sept 2-4.

58. Aijazi A, Best R, Schiavon S. 2019. Optimizing Energy Conservation Measures in a Grocery Store using Present and Future Weather Files. Proceedings of Building Simulation 2019 Conference. Rome, Italy. Sept 2-4.

57. Liu S, Wang Z, He Y, Luo M, Zhang H, Schiavon S. 2018. Discomfort caused by thermal stratification at thermal neutrality. Proceedings of the 15th International Conference Indoor Air 2018, Philadelphia, PA, USA. July 22-27.

56. Liu S, Jin M, Das HP, Spanos CJ, Schiavon S. 2018. Personal thermal comfort models based on physiological parameters measured by wearable sensors. Proceedings of the 10th Windsor Conference. Windsor, UK. April 12-15th

55. Kim J, Schiavon S, Brager G. 2018. Personal comfort models – a new paradigm in thermal comfort for intelligent environmental control. Proceedings of the 10th Windsor Conference. Windsor, UK. April 12-15th

54. Fugiglando U, Santucci D, Bojic I, Santi P, Cheung TCT, Schiavon S, Ratti C. 2018. Developing personal thermal comfort models for the control of HVAC in cars using field data. Proceedings of the 10th Windsor Conference. Windsor, UK. April 12-15th

53. Karmann C, Schiavon S, Arens E. 2018. Percentage of commercial buildings showing at least 80% occupant satisfied with their thermal comfort. Proceedings of the 10th Windsor Conference. Windsor, UK. April 12-15th
https://escholarship.org/uc/item/89m0z34x

52. 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. Proceedings of PLEA 2018. Hong Kong, Dec 10-12. (Best paper award)

51. Zani A, Mainini AG, Blanco Cadena JD, Schiavon S, Arens E. 2018. A new modeling approach for the assessment of the effect of solar radiation on indoor thermal comfort. 2018 Building Performance Analysis Conference and SimBuild. Chicago, IL Sept 26-28.
https://escholarship.org/uc/item/2jx680d7

50. Duarte C, Raftery P, Schiavon S, Bauman F. 2018. How high can you go? Determining the highest supply temperature for high thermal mass radiant cooling systems in California. Proceedings of the 4th International Conference on building energy environment COBEE 2018. Melbourne, Australia, Feb 5-9.

49. Jin M, Liu S, Tian Y, Lu M, Schiavon S, Spanos C. 2017 Indoor environmental quality monitoring by autonomous mobile sensing. The 4th ACM International Conference on Systems for Energy-Efficient Built Environments (BuildSys 2017), Delft, The Netherlands, Nov 8-9.

48. Lipczynska A, Schiavon S, Graham L. 2017. Thermal comfort and self-reported productivity in an office with ceiling fans in the tropics. Healthy Building 2017, Lublin, Poland, July 2-5.

47. Ko WH, Schiavon S. 2017. Balancing thermal and visual autonomy in the assessment of building performances. Proceedings of the 15th International Conference Building Simulation 2017, San Francisco, US, August 7-9.
https://escholarship.org/uc/item/7b4909sf

46. Raftery P, Duarte C, Schiavon S, Bauman F. 2017. A new control strategy for high thermal mass radiant systems. Proceedings of the 15th International Conference Building Simulation 2017, San Francisco, US, August 7-9.

45. Bourdakis E, Schiavon S, Raftery P, Bauman F, Olesen B. 2017. Cooling load calculations of radiant and all-air systems for commercial buildings. Proceedings of the International Conference PLEA 2017, Edinburgh, UK, July 3-5.

44. Altomonte S, Kent M, Brager G, Schiavon S. 2017. Are occupants more satisfied with indoor environmental quality in green-certified buildings? Proceedings of the International Conference PLEA 2017, Edinburgh, UK, July 3-5.

43. Kabanshi A, Liu S, Schiavon S. 2016. Potential adaptive behaviors to counteract thermal discomfort in spaces with displacement ventilation or underfloor air distribution systems. Proceedings of the 14th International Conference Indoor Air 2016, Ghent, Belgium. July 3-8.

42. Gall E, Cheung T, Luhung L, Schiavon S, Nazaroff W. 2016. Real-time measurement of personal exposures to carbon dioxide. Proceedings of the 14th International Conference Indoor Air 2016, Ghent, Belgium. July 3-8.

41. Altomonte S, Saadouni S, Schiavon S. 2016. Occupant satisfaction in LEED and BREEAM-certified office buildings. Proceedings of the PLEA 2016 Conference, Los Angeles, US. July 11-13.
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Books contributions

4. Contributor to UFAD O&M Guide. A Practical Guide for Operation and Maintenance of Underfloor Air Distribution Systems. I drafted most of chapter 1. ASHRAE, Atlanta, GA.

3. Commenting on: Devlieger L (Rotor). 2014. Behind the green door. A critical look at sustainable architecture through 600 objects. Oslo Architecture Triennale.

2. Translation from English to Italian: Nielsen PV, Allard F, Awbi HB, Davidson L, Schälin A. 2007. Computational Fluid Dynamics in Ventilation Design. REHVA Guidebook no 10. 2007 (Translation for

AICARR).

1. Translation from English to Italian: Wargocki P, Seppänen O, Andersson J, Boerstra A, Clements-Croome D, Fitzner K, Olaf Hanssen S. 2006. Indoor Climate and Productivity in Offices. How to integrate productivity in life-cycle cost analysis of building services. REHVA Guidebook no 6. (Translation for AICARR).

Editorials

1. Schiavon S. 2014. Adventitious ventilation: A new definition for an old mode? Indoor Air, Volume 24, 557-558. (Editorial)
http://dx.doi.org/10.1111/ina.12155

Media

17. Popular Science. Why your office is so cold, and how to deal with it. May 2018.

16. Associated Press. Take this job and shiver it: Chilly offices plague workers. Jan 2018. News picked up also by USA Today, Telemundo,
15. UC Berkeley News. Turning up the thermostat in tropics shows promise for energy and comfort. Dec 2016. News picked up also by Xinhua, Technology.org, China.org.cn, MyScience, ScienceDaily.
14. ASHRAE News. Online Thermal Comfort Compliance Tool Included In New ASHRAE User's Manual. Oct 2016.
13. The Atlantic. In cold offices, it's all about your feet. Sept 2016.
12. PM. Radiant cooling schooling. April 2016.
11. EI at Haas blog. Are we over-air conditioned?. September 2015
10. Forbes. Boosting Performance Through Thoughtful Workplace Design. July 2015
9. Modulo 394. Scenari Sos Tenibili. Emanuele Nabboni. May 2015
ISSN 0390 – 1025. Page: 120-124.
8. Occupant satisfaction in LEED and non-LEED buildings. Archdaily.com. BuildingGreen.com. CasaClima. Workplace Insight. Journal of Commerce. Daily Commercial News. Quality Digest. Environmental Leader. May-June 2-14.
7. Architectural Record. Performance anxiety. December 2013.
http://archrecord.construction.com/tech/techFeatures/2013/1312-performance-anxiety.asp
6. Il Venerdì. La Repubblica. 1 Nov 2013. Chi scalda la sedia salva l'ambiente. Beautiful mind. N 1337 page 68-69. http://periodici.repubblica.it/venerdi/
5. Science for Environment Policy. 17 Oct 2013. Indoor environmental quality of LEED-certified buildings evaluated. European Commission DG Environment News Alert Service.
http://ec.europa.eu/environment/integration/research/newsalert/pdf/346na5.pdf
4. CubeSensor. 8 Jul 2013. The environment can boost your workplace happiness.
http://blog.cubesensors.com/2013/07/the-environment-can-boost-your-workplace-happiness/
3. Modulo. 15 Jan 2013. False myths about sustainable architecture. Interview about post occupancy evaluation by associate professor Emanuele Naboni (Royal Danish Academy).
2. Boston Globe. 28 Feb 2010. A room temperature of one's own.
http://www.boston.com/bostonglobe/ideas/articles/2010/02/28/a_room_temperature_of_ones_own/
1. New Scientist. 02 Dec 2009. Climate control for your desk.
www.newscientist.com/article/mg20427375.300-climate-control-for-your-desk.html

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

4. CBE Thermal Comfort Tool for ASHRAE 55. Version 1. 04/16/2013. The design tool is freely available: http://comfort.cbe.berkeley.edu/. CBE Thermal Comfort Tool for ASHRAE 55. Beta version 10/27/2011. From Oct 2013 to May 2016 the tool has been used by 31,283 unique users.
3. UFAD Cooling Airflow Design Tool. Version 2. 07/03/2014. The design tool is freely available: www.cbe.berkeley.edu/ufad-designtool/online.htm. More info may be found: www.cbe.berkeley.edu/research/ufad_designtool-download.htm. UFAD Cooling Airflow Design Tool. Version 1. 06/10/2010.
2. CBE UFAD Simulation Toolkit. Excel interface for EnergyPlus 3.1 in order to simulate an UFAD system. The design tool is available on the CBE Partner website http://www.cbe.berkeley.edu/partners/login.php.
1. Cooling Airflow Design Tool for Displacement Ventilation (DV). Excel 2007/VBA version of the ASHRAE method (Chen and Glicksman 2003) for calculating the amount of design cooling airflow required for a displacement ventilation (DV) system. The design tool is available on the CBE Partner website http://www.cbe.berkeley.edu/partners/login.php

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

Role, Status, Agency, Start date and End date and Title	***Total (k$)***
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	5250

Berkeley. ~880k/year for 5 years for Theme A to be used in Singapore.	
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	38.7
Energy Efficient Fan in Warm Indoor Environment--A Human Response Study in the Tropics	
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

Agency, Start date and End date (if any) and Title	***Total (k$)***
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

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.

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

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 and Chandra Sekhar. National University of Singapore. 5-6/2018
Veronica Soebarto. Associate Professor. The University of Adelaide. 8/2017-1/2018
Sergio Altomonte. Associate Professor. 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 Bourdakis (DTU), Alan Kabanshi (Galve U), Yongmei Xuan (Zhejiang U), Monika Frontczak (DTU), Alberto Piccioli (Bologna U).

Postdoctoral Students

11. Thomas Parkinson. PhD at University of Sydney. Main Supervisor 05/2018-now
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

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

External PhD examiner

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

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***
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	03/2014	ongoing

zero. It is now in public review.		
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.ashraepcs.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 Mønsteds 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.

07/04 European Union grant for studying at Vitus Bering University Danish language and culture.

05/00 Small Industries Ass. award for the design of a machine to make gold chain, Vicenza, Italy.

06/20 Bassano del Grappa distinguished student award, Bassano del Grappa, Italy.

Public lectures and presentations

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.

Language skills

Italian: Mother tongue
English: Proficient
Spanish: Independent
Chinese: Basic. I obtain the first level certification of Chinese language from Beijing Language and Culture University (北京语言大学) Beijing, China (20 hours per week for six months). I lived and studied at Tsinghua University (清华大学) for a year.

Computer skills and competences

Energy analysis of building: EnergyPlus and several interfaces (e.g. DesignBuilder, Simergy); IDA-ICE. Computer Fluid Dynamics: Flovent; AirPak. Solar analysis and shading: Ecotect. Automation and measurement: LabView. Heat transfer: Windows; Comfen; Heat 2 and 3; Therm. Multizone airflow: Contam. Refrigeration: CoolPack. Statistics: R-statistic (advanced user); RStudio. Optimization: GenOpt. CAD: AutoCAD; Rhino. GitHub.

University Service

Campus

2018-now	Associate Director, Center for Environmental Design Research. Duties: 1) help strengthen CEDR intellectual identity and mission statement, 2) expand CEDR cross-campus interdisciplinary collaborations, and 3) find closer connections to UCB's new Signature Initiatives
2017-2018	Chancellor's Advisory Committee on Sustainability (CACS). Member
2017-now	Global Metropolitan Studies Affiliate
2016-now	Energy and Resources Group Affiliate
2015-16	Siebel Energy Institute Scholar program. Reviewer of applications
2014-15	Steering Committee of the campus Energy Initiative. Member
2014-now	Advisory Board of Certification Program in HVAC for UC Berkeley Extension. Member
2012-13	Steering Committee of the campus Energy Initiative. Member
2011-12	Steering Committee of the campus Energy Initiative. Member.

College

2012-13	CED Strategic Planning Committee Task Force on the Future of Ecologies.
2012-13	Development and implementation of energy efficiency measure regarding ventilation rate in Wurster Hall. Roughly 30 hours used to meet the building manager and campus energy service engineer to design, implement and monitor demand control ventilation.

Department

2018-19	Chair of the search committee on Architectural Design for Sustainable Building Performance (Search #2311, 1.00 FTE, NT)
2018-19	Member of the MArch Academic Program Review
2018-19	Member of the PhD Academic Program Review
2017-18	Department Ad-Hoc Committee Report on tenure case. Member
2017-18	MS/PhD committee. Building Science and Technology Area Coordinator.
2015-17	MS/PhD committee. Member
2015-16	MS/PhD committee. Member (Lead the introduction of Plan 2 – report option in MS program)
2015-16	MS/PhD committee. Member (Lead the change of language requirements)
2014-15	MS/PhD committee. Member
2013-14	MS/PhD committee. Member
2013-14	Search committee member of the Structure and Emerging Building Technology Search #1619. Member
2012-13	MArch admissions committee. Member
2012-13	Undergraduate committee. Member. Curriculum development and student funding
2012-13	MS/PhD committee. Member.
2011-12	MArch admissions. Member
2011-12	MS/PhD committee. Auditing.