

SUMMARY OF PERSONAL RECORD

Stefano Schiavon, PhD

Current Position

Assistant Professor of Architecture (Sustainability, Energy and Environment)
Department of Architecture, College of Environmental Design, 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

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: 690; H-index: 14
Peer-reviewed Papers in International Journals: 30 (23*)
Books: 1
Peer-reviewed Papers in Conference Proceedings: 43 (28*)
Journal Papers in Italian: 11
Editorials: 1*
Reports: 15 (8*)
Software programs published: 4 (2*)
Media: 11 (9*)
Wikipedia: 86* edited pages, 313 live edits

Invited lectures/Keynotes/Seminars 49 (24*)

Postdoctoral 5*

Invention disclosure / Provisional patent 2* / 1*

Grants \$5,646,000*

* Contributions from 7/2011 to 12/2016

RESUME OF STEFANO SCHIAVON

Contact info

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Education

- 2006-2009 PhD in Building Science-Energy Engineering. 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/'15-05-07/'16 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

<i>Employer</i>	<i>Position</i>	<i>Beginning</i>	<i>Ending</i>
University of California, Berkeley	Assistant Professor	07/2011	Present
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

- *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 W. 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)*.
<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.
<http://dx.doi.org/10.1371/journal.pone.0127930>
- *24. Yang B, Schiavon S, Sekhar C, Cheong KW, Tham KW, Nazaroff W. 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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, Issue 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

- *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. Saadouni S, Altomonte S, Schiavon S. 2016. Occupant satisfaction in LEED and BREEAM certified office. *Proceedings of the PLEA 2016 Conference*, Los Angeles, US. July 11-13.
- *40. Cheung T, Gall E, Schiavon S, Nazaroff W. 2016. Real-time personal continuous monitoring of air temperature, relative humidity, carbon dioxide, and thermal and perceived air quality acceptability in Singapore. *Proceedings of the 9th Windsor Conference*. Windsor, UK. April 7-10th
- *39. Karmann C, Schiavon S, Bauman F. 2015. Do radiant systems provide better thermal comfort than air systems? A brief critical literature review. *Proceedings of the 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*. Tianjin, China. July 12-15.

- *38. Schiavon S, Yang B, Chang W-C, Nazaroff W. 2015. Effect of air temperature and personally controlled air movement on thermal comfort for tropically acclimatized persons. Proceedings of the 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE). Tianjin, China. July 12-15.
- *37. Ning B, Schiavon S, Bauman F. 2015. A classification scheme for radiant systems based on thermal time constant. Proceedings of the 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE). Tianjin, China. July 12-15.
- *36. Schiavon S, Rim D, Pasut W, Nazaroff W. 2014. Sensation of draft at ankles for displacement ventilation and underfloor air distribution systems. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
<http://escholarship.org/uc/item/34t9x4st>
- *35. Chen B, Schiavon S, Bauman F, and Chen QY. 2014. A comparison between two underfloor air distribution (UFAD) design. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
<http://escholarship.org/uc/item/5zz6g8wj>
- *34. Yang B, Schiavon S, Sekhar C, Cheong KW, Tham KW, Nazaroff W. 2014. Performance evaluation of an energy efficient stand fan. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
- *33. Schiavon S, Altomonte S. 2014. Influence of factors unrelated to environmental quality on occupant satisfaction in LEED and non-LEED certified buildings. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
- *32. Arens E, Huang L, Hoyt T, Zhou X, Zhang H, and Schiavon S. 2014. Modeling the comfort effects of short-wave solar radiation indoors. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
<https://escholarship.org/uc/item/89m1h2dg>
- *31. Rim D, Schiavon S, Nazaroff W. 2014. Impact of increasing outdoor ventilation rates on energy consumption for office building in tropical climate. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
- *30. Karmann C, Schiavon S, Bauman F. 2014. Online map of buildings using radiant technologies. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
<http://escholarship.org/uc/item/9rs8t4wb>
- *29. Schiavon S, Webster T, Dickerhoff D, Bauman F. 2014. Stratification prediction model for perimeter zone UFAD diffusers based on laboratory testing with solar simulator. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
- *28. Feng D J, Schiavon S, Bauman F. 2014. Critical review of water based radiant cooling systems design methods. Proceedings of the 13th International Conference Indoor Air 2014, Hong Kong. July 7-12.
<https://escholarship.org/uc/item/2s00x6ns>
- *27. Altomonte S, Schiavon S. 2014. Indoor environmental quality and user satisfaction in green certified buildings. Proceedings of the 48th International Conference of Architectural Science Association 2014. Genoa, Italy. Dec 10-13.
- *26. Feng D J, Schiavon S, Bauman F. 2013. Impacts of solar heat gain on radiant floor cooling systems design. Proceedings of the 11th International Conference CLIMA 2013, Prague, Czech Republic, June 16-19.
<http://escholarship.org/uc/item/2913930b>
- *25. Schiavon S, Bauman F, Tully B, and Rimmer J. 2013. Temperature stratification in high cooling load office in a combined chilled ceiling and displacement ventilation system. Proceedings of the 11th International Conference CLIMA 2013, Prague, Czech Republic, June 16-19.
- *24. Fuertes G, Schiavon S. 2013. Plug load energy analysis: The role of plug load in LEED certification.

- Proceedings of the 11th International Conference CLIMA 2013, Prague, Czech Republic, June 16-19.
<http://escholarship.org/uc/item/8fs0k03g>
- *23. Lee KH, Schiavon S. 2012, Influence of two dynamic predictive clothing insulation models on building energy performance. Asim2012. Shanghai, China, Nov 25-27.
<http://www.ibpsa.org/proceedings/asim2012/0012.pdf>
 - *22. Steinfeld K, Schiavon S, Moon D. 2012. Open Graphic Evaluative Frameworks: A climate analysis tool based on an open web-based weather data visualization platform. 30th International eCAADe Conference – Digital Physicality / Physical Digitality, Prague, Czech Republic, September 12-14.
<http://escholarship.org/uc/item/0dx855jg>
 - *21. Basu C, Schiavon S, Bauman F. 2012. Sizing Thermally Active Building Systems (TABS): A Brief Literature Review. International Conference on Building Energy and Environment. Boulder, Colorado, August 1-4.
<http://www.escholarship.org/uc/item/8zg102ff>
 - *20. Feng J, Schiavon S, Bauman F. 2012. Comparison of Zone Cooling Load for Radiant and Air Conditioning Systems. Proceedings of the International Conference on Building Energy and Environment. Boulder, Colorado, August 1-4.
<http://escholarship.org/uc/item/9g24f38j>
 - *19. Webster T, Hoyt T, Lee E, Daly A, Feng J, Bauman F, Schiavon S, Lee KW, Pasut W, and Fisher D. 2012. Influence of design and operating conditions on underfloor air distribution (UFAD) system performance. Proceedings of SimBuild 2012, Madison, WI, August 1-3.
http://www.ibpsa.us/simbuild2012/Papers/SB12_TS10b_4_Webster.pdf
 - *18. Wargocki P, Frontczak M, Schiavon S, Goins J, Arens E, and Zhang H. 2012. Satisfaction and self-estimated performance in relation to indoor environmental parameters and building features. Proceedings of 10th International Conference on Healthy Buildings, Brisbane, Queensland, July 8-12. <http://escholarship.org/uc/item/451326fk>
 - *17. Schiavon S, Lee KH. 2012. Predictive clothing insulation model based on outdoor air and indoor operative temperatures. Proceedings of 7th Windsor Conference: The changing context of comfort in an unpredictable world Cumberland Lodge, Windsor, UK, April 12-15.
<http://escholarship.org/uc/item/4sd2240n>
 - *16. Lee KH, Schiavon S, Webster T, Bauman F, Hoyt T, Feng J. 2011. Lessons learned in modeling underfloor air distribution system. Proceeding of International Conference of Building Simulation 2011, Sydney, Australia, November 14-16.
<http://escholarship.org/uc/item/89b530ph>
 - 15. Schiavon S, Bauman F, Tully B, and Rimmer J. 2011. Ventilation effectiveness in combined chilled ceiling and displacement ventilation systems. Proceedings of International Conference Indoor Air Quality and Climate 2011. Austin, US.
<http://escholarship.org/uc/item/4cb4d630>
 - 14. Frontczak M, Schiavon S, Goins J, Arens E, Zhang H, and Wargocki P. 2011. Quantitative relationships between occupant satisfaction and aspects of indoor environmental quality and building design. Proceedings of International Conference Indoor Air Quality and Climate 2011. Austin, US.
 - 13. Peretti C, and Schiavon S. June 2011. Indoor environment quality survey: a brief literature review. Proceedings of International Conference Indoor Air Quality and Climate 2011. Austin, US.
<http://escholarship.org/uc/item/0wb1v0ss>
 - 12. Schiavon S, Bauman F, Tully B, and Rimmer J. 2010. Room air stratification in combined chilled ceiling and displacement ventilation systems. Proceeding of the 7th International Conference IAQVEC2010. Syracuse, New York, US.
 - 11. Webster T, Lee KW, Bauman F, Schiavon S, Hoyt T, Feng J, and Daly A. 2010. Influence of supply air temperature on underfloor air distribution (UFAD) system energy performance. SimBuild 2010. New York, US.

www.ibpsa.us/sb10pub.shtml

10. Peretti C, Schiavon S, Goins J, Arens E, and De Carli M. 2010. Evaluation of Indoor Environment Quality with a Web-based Occupant Satisfaction Survey: a Case Study in Northern Italy. Proceeding of International Conference Clima 2010 - REHVA World Congress. Antalya, Turkey.
<http://escholarship.org/uc/item/4h5616k5>
9. Peretti C, Schiavon S, and Goins J. 2009. Analisi della qualità dell'ambiente interno di un edificio per uffici certificato A+ secondo CasaClima (In Italian). Evaluation of indoor environment quality of an office building certificated CasaClima A+ (In English). Poster presentation. Proceedings of the Energy Forum on Solar Architecture & Urban Planning 2009. Bressanone, Italy.
<http://escholarship.org/uc/item/6v70g2wn>
8. Schiavon S, and Melikov A. 2009. Evaluation of the Cooling Fan Efficiency index for a desk fan and a computer fan. Proceedings of International Conference Roomvent 2009. Busan, South Korea.
<http://www.escholarship.org/uc/item/98n759dr>
7. Schiavon S, and Melikov A. 2008. Energy analysis of a personalized ventilation system in a cold climate: influence of the supplied air temperature. Proceedings of 29th International Conference AIVC in 2008. Kyoto, Japan. (Best Poster Award)
<http://escholarship.org/uc/item/8xs7b61d>
6. Schiavon S, and Melikov A. 2008. Energy saving and improved comfort by increasing air movement. Proceedings of International Conference Indoor Air 2008. Copenhagen, Denmark.
5. Scarpa M, Schiavon S, and Zecchin R. 2008. Renewable energy in commercial buildings. Le fonti d'energia rinnovabile nella climatizzazione. Proceeding of the International Conference Expocomfort 2008. Milan 12-13 March. pp 71-87.
<http://escholarship.org/uc/item/486449n4>
4. Schiavon S, and Zecchin R. 2008. Indoor Climate and Productivity in Offices. Clima Interno e Produttività negli Uffici. Proceeding of the International Conference Expocomfort 2008. Milan 12-13 March. pp 475-488.
<http://escholarship.org/uc/item/40r8r9pz>
3. Schiavon S, Melikov A, Cermak C, De Carli M, and Li X. 2007. An Index for Evaluation of Air Quality Improvement in Rooms with Personalized Ventilation Based on Occupied Density and Normalized Concentration. Proceedings of International Conference Roomvent 2007. Helsinki, Finland.
<http://escholarship.org/uc/item/2kw822s7>
2. De Carli M, Scarpa M, Schiavon S, and Zecchin R. 2007. Simulated Energy Savings of a Cool Roofs applied to Industrial Premise in the Mediterranean Area. Proceedings of International Conference ClimaMed2007. Genoa, Italy.
<http://escholarship.org/uc/item/0n18t8wz>
1. Schiavon S. 2006. Design methods for displacement ventilation: Critical review. Proceeding of Chinese National HVAC&R Conference, Hefei, Anhui, China. (In Chinese)
<http://escholarship.org/uc/item/5p3008p9>

Journal Papers in Italian

11. Peretti C, Schiavon S, and De Carli M. 2010. Occupants evaluate indoor environmental quality. Gli occupanti misurano la qualità. CasaClima. February, pp 14-16.
<http://escholarship.org/uc/item/97019947>
10. Schiavon S, Peretti C, Goins J, and Zecchin R. 2009. Listen to the occupants. Ascoltare gli occupanti. CDA. n.8, pp 58-59.
<http://escholarship.org/uc/item/61m075t6>
9. Naydenov K, Schiavon S, and Zecchin R. 2009. How much should we ventilate residential buildings? Quanto dobbiamo ventilare gli edifici residenziali? CDA. N.6, June, pp 18-23.
<http://escholarship.org/uc/item/3jq012t8>

8. Schiavon S, and Zecchin R. 2009. Indoor climate and productivity in office buildings. *Clima Interno e Produttività negli Uffici*. CDA, n. 1, January, pp 44-50.
<http://escholarship.org/uc/item/79p3q5n4>
7. Bekő G, and Schiavon S. 2008. Do filters pollute the air? – Part 2. Possono i filtri inquinare l'aria? Parte 2. *L'Installatore Italiano*, n. 8, September, pp 38-41.
<http://escholarship.org/uc/item/1hr6s3q8>
6. Bekő G, and Schiavon S. 2008. Do filters pollute the air? – Part 1. Possono i filtri inquinare l'aria? Parte 1. *L'Installatore Italiano*, n. 7, July, pp 31-35.
<http://escholarship.org/uc/item/12k4w74d>
5. Schiavon S, and Zecchin R. 2007. Climate Change 2007: Mitigation of Climate Change. La mitigazione dei cambiamenti climatici. *CDA*, n11, December, pp 42-46.
<http://escholarship.org/uc/item/47g1b9p9>
4. Schiavon S, and Zecchin, R. 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability. I cambiamenti climatici: impatti, adattamento e vulnerabilità. *CDA*, n. 10 November 2007, pp 30-33.
<http://escholarship.org/uc/item/6x71f1xm>
3. Schiavon S, and Zecchin R. 2007. Climate Change 2007: Causes, impacts, mitigation. Cambiamenti climatici: cause, impatti e mitigazione. *Galileo 181*, July-September, pp 6-9.
<http://escholarship.org/uc/item/4j18q9zg>
2. Schiavon S, and Zecchin R. 2007. Climate Change 2007: The Physical Science Basis. I cambiamenti climatici: le basi scientifiche. *CDA*, n.9, October, pp 20-22.
<http://escholarship.org/uc/item/2j42x9fh>
1. Schiavon S, and Zecchin R. 2006. Fanger's lesson. L'eredità di Fanger. *CDA*, n.11, December, pp 74-75.
<http://escholarship.org/uc/item/3k6773m2>

Reports

- *15. Duarte C, Raftery P, Schiavon S. April 2016. SinBerBEST Technology Energy Assessment Results. Final report to SinBerBEST. Center for the Built Environment, University of California, Berkeley, CA, pp 69
<http://escholarship.org/uc/item/7k1796zv>
- *14. Monteiro P, Mosalam K, Nazaroff W, Ostertag C, Poolla K, Sangiovanni-Vincentelli A, Schiavon S, Spanos C, Taylor H, Tomizuka M. July 2015. SinBerBEST Mid-review Technical Report. Singapore. pp 77
- *13. Monteiro P, Mosalam K, Nazaroff W, Ostertag C, Poolla K, Sangiovanni-Vincentelli A, Schiavon S, Spanos C, Taylor H, Tomizuka M. July 2015. SinBerBEST Mid-review Scientific Advisory Committee Report. Singapore. pp 57
- *12. Bauman F, Webster T, Zhang H, Arens E, Lehrer D, Dickerhoff D, Feng D, Heinzerling D, Fennon D, Yu T, Hoffmann S, Hoyt T, Pasut W, Schiavon S, Vasusw J, Kaam S. July 2013. Final project report to CEC (CEC-500-2014-074). Center for the Built Environment.
<https://escholarship.org/uc/item/8jb4f64f>
- *11. Webster T, Bauman F, Lee KH, Schiavon S, Daly A, Hoyt T. December 2012. CBE EnergyPluys Modeling Methods for UFAD Systems. Report for the Center for the Built Environment, University of California, Berkeley, CA
<http://escholarship.org/uc/item/4mt314vs>
- *10. Bauman F, Webster T, Schiavon S, Zhang H, and Arens E. April 2012. Advanced Design and Commissioning Tools for Energy-Efficient Building Technologies. Final report to California Energy Commission (CEC) Public Interest Energy Research (PIER) Program, Contract 500-06-049. Center for the Built Environment, University of California, Berkeley, pp 123.
<http://escholarship.org/uc/item/9pc6t4s3>

- *9. Webster T, Bauman F, Schiavon S, Dickerhoff D, Heinzerling D. August 2011. Technical report of California State Teachers Retirement System Building: UFAD Performance and Blinds Study. Report for the Center for the Built Environment, University of California, Berkeley, CA.
<http://escholarship.org/uc/item/7hc7h08r>
- *8. Bauman F, Webster T, Dickerhoff D, Schiavon S, Feng D, Basu C. October 2011. Case study report: David Brower Center. Report for the Center for the Built Environment, University of California, Berkeley, CA, April, pp 8.
http://www.cbe.berkeley.edu/research/pdf_files/Bauman2011-Brower-interim-report.pdf
7. Bauman F, Webster T, Lehrer D, Arens E, Zhang H, Goins J, Dickerhoff D, Schiavon S, Hoffmann S, Tiefeng Yu, Fannon D, Perepelitza M, and Zelenay K. Feb 2011. Advanced Integrated Systems Tools Development and Performance Testing. UC Office of the President/CIEE Contract Number: 500-99-013. Work Authorization Number: BOA-99-225-P. pp 24.
http://uc-ciee.org/downloads/BOA-99-225-P_FinalReport_02-16-11.pdf
6. Goins J, Adams M, Alminana J, Bauman F, Dickerhoff D, Molly J, Mc Daniels S, Mendel C, Morris P, Schiavon S, Webster T. April 2011. Kresge Foundation Complex: Post-Occupancy Evaluation. Final Report, pp 187.
<http://escholarship.org/uc/item/30h937bh>
5. Schiavon S, Bauman F, Lee KH, and Webster T. July 2010. Development of a simplified cooling load design tool for underfloor air distribution systems. Final Report to CEC PIER Program, pp 20. CEC Contract No. 500-06-049.
<http://escholarship.org/uc/item/70f4n03z>
4. Schiavon S, and Bauman F. 2010. Heat transfer analysis of radiant roof panel system. Report for Integrated Structures, Inc., pp 5.
3. Webster T, Bauman F, Lee K, Schiavon S, and Daly A. 2009. CBE UFAD simulations toolkit part I - User Guide. Report for the Center for the Built Environment, University of California, Berkeley, CA, October, pp 16.
2. Schiavon S, and Bauman F. 2009. Cooling Airflow Design Tool for Displacement Ventilation (DV). User Notes for the Center for the Built Environment, University of California, Berkeley, CA, June, pp 69.
<http://escholarship.org/uc/item/7k1796zv>
1. Linden P, Yu JK, Webster T, Bauman F, Lee KH, Schiavon S, and Daly A. 2009. Simulation of Energy Performance of Underfloor Air Distribution (UFAD) Systems. Building Energy Research Grant (BERG), pp 46.
www.escholarship.org/uc/item/7gr8r3d3

Books contributions

- *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>

Papers under preparation

Schiavon S, Yang B, Donner Y, Chang W-C, Nazaroff W. 2016. Thermal comfort, perceived air quality and cognitive performance when personally controlled air movement is used by tropically acclimatized persons. Submitted to Indoor Air.

Karmann C, Schiavon S, Bauman F, Olesen B. 2016. Thermal comfort in buildings using radiant vs. all-air systems: A critical literature review. To be submitted to Building and Environment.

Ning B, Schiavon S, Bauman F. 2016. A classification scheme for radiant systems based on thermal time constant. To be submitted to Energy and Buildings.

Xu Z, Hu G, Spanos C, Schiavon S. 2016. An event-triggered mechanism based on PMV for building energy saving under uncertainties. In preparation

Liu S, Schiavon S, Kabanshi. 2016. A draft predict percentage of dissatisfied model for ankle. To be submitted to Indoor Air.

Duarte C, Raftery P, Schiavon S. 2016. Development of an energy benchmark model for commercial buildings in Singapore. In preparation

Sekhar C, Saber EM, Anand P, Schiavon S, Tham KW, Cheong D. 2016. Adaptive cooling coil for enhanced humidity control during part loads in the tropics: A computational evaluation. To be submitted to Energy and Buildings.

Karmann C, Bauman F, Raftery P, Schiavon S, Frantz W. 2017. Cooling capacity and acoustical performance of a radiant chilled ceiling with free-hanging acoustical canopies. To be submitted to Energy and Buildings.

Karmann C, Bauman F, Raftery P, Schiavon S. 2017. Effect of acoustical coverage and air movement on the cooling capacity of a radiant chilled ceiling. To be submitted to Energy and Buildings.

Media

- *11. [El 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 Nabboni (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.

Wikipedia

Since November 2007 I personally edited 86 pages (total live edits: 313)

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](#) (Update); [Solar access](#) (Updated); [Daylighting](#) (Updated); [Lighting](#) (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 simulated 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 / provisional patent

- *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

Grants from external agencies

<i>Role, Status, Agency, Start date and End date and Title</i>	<i>Total (k\$)</i>
* PI. Current. Lawrence Berkeley National Laboratory. 5/2015 – 9/2015. Fabrication of Thermal Manikins for Testing in LBNL's FLEXLAB	20.3
* Co-PI. 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. BEARS. 09/2014-03/2017. \$425,000. SinBerBEST. Singapore Berkeley Building Efficiency and Sustainability in the Tropics	425
* PI. Current. BEARS. 10/2014-10/2015. Building performance modeling of SinBerBEST energy saving strategies	85

* PI. Current, 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. Current, 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. Current. 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>Role, Status, Agency, Start date and End date and Title</i>	<i>Total (k\$)</i>
* Price Industries. 02/2014. Gift given to Ed Arens. Paul Raftery, Fred Bauman, and I worked on this gift.	15

TEACHING

Teaching Record

- *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)

- * Jonathan Woolley. Main supervisor.
- * Carlos Duarte. Main supervisor.
- * Joyce Kim. Served as Chair of the Qualification exam (3/14/2016).
- * Caroline Karmann. Served in the Qualification exam (2/6/2015) and main supervisor.
- * Jingjuan Dove Feng. Design and Control of Hydronic Radiant Cooling Systems. Chair. LBNL/Taylor Engineering. 05/2014
- 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

PhD mentoring external

- * Olga Kavvada. Served in the Qualification exam. (S/2016) CEE
- * Ming Jin. Served in the Qualification exam (4/29/2016). EECS
- * Imran Sheikh. Served in the Qualification exam (S/2016). ERG
- * Alex Mead. Served in the Qualification exam (12/07/2015) and external advisor. CEE.
- * 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. Served in the Qualification exam (5/5/2015), external dissertation committee member

and external advisor. EECS.

- * Matthew Vannucci. Served in the Qualification exam (2/6/2015) and external supervisor. CEE.
- * 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

MS mentoring

- * 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

- * Sergio Altomonte. Associate Professor. University of Nottingham. 8/2012-2/2013 and 7-9/2016

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

- * Aleksandra Lipczyńska. PhD at Silesian University of Technology, Poland and Technical University of Denmark. Main supervisor 1/7/2016-now

- * Chin To (Toby) Cheung. PhD at Honk Kong Polytechnic University. Main supervisor. 10/12/2015-now
- * Shichao Liu. PhD at University of Texas Austin. Main supervisor. 01/20/2015-now
- * 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
- * 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

Professional researcher

- * Jovan Pantelic. PhD at National University of Singapore. 1/11/2016-now

External PhD examiner

- * Fan Zhang. The University of Sydney. 05/2016
- * Jungsoo Kim. The University of Sydney. 09/2013

Students' awards

Date Students' awards

- 12/16 Jonathan Woolley won the ASHRAE Golden Gate Chapter Student Travel 2016 Annual Conference Grant.
- 05/15 Caroline Karmann won the ASHRAE Golden Gate Chapter Eric Thor Andresen Award 2015.
- 05/15 Shichao Liu won the ASHRAE Golden Gate Chapter Scholarship 2015.
- 04/15 Carlos Duarte-Roa, Priya Gandhi, Antony Kim, Jared Landsman, Luis Santos, Sara Tepfer, Taoning Wang. Award for Excellence for technical analysis. DOE Race to Zero Student Design Competition
- 05/14 Priya Ghandi won the ASHRAE Golden Gate Chapter Eric Thor Andresen Award 2014.
- 05/14 Kristine Walker won the ASHRAE Golden Gate Chapter Eric Thor Andresen Award 2014.
- 05/14 Dove Feng won the ASHRAE Golden Gate Chapter Student Travel 2015 Annual Conference Grant.
- 12/13 Bin Chen won the ASHRAE Golden Gate Chapter Student Travel 2014 Winter Conference Grant.
- 07/13 Anoop Honnekeri won the UC Berkeley grad division grant to attend the International Building Simulation IBPSA Conference in Chambéry, France.
- 07/13 Liz Kee won an Asian American Architects and Engineers Association Scholarship to build a tuberculosis clinic and lab for the Karen department of Health and Welfare in a refugee camp on the border between Thailand and Karen State (Burma).
- 05/13 Bin Chen won the ASHRAE Eric Thor Andresen 2013 Scholarship.
- 05/13 Joyce Kim won the ASHRAE Golden Gate Chapter 2013 Student Scholarship.
- 11/12 Gwendolyn Fuertes won the Tung-Yen Lin prize (\$4000) for doing a research entitled: "Life-Cycle Analysis of Structural and Finish Materials in Bay Area Projects: Process & Case Study".

SERVICE

Conference activities

- * 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)

- *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 the Research Grants Council (RGC) of Hong Kong	03/2015	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	03/2014	06/2016
* 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, since 2008
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

- *2/2013 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 Mønstedts 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

- *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. Invited. "Dynamic clothing model & CBE Thermal Comfort Tool" COBEE 2015 Workshop. Tianjin, China. 07/14/2015
- *39. Invited. "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. Invited "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. Invited "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. Invited keynote "Unveiling the Built Environment: Energy Efficiency and Indoor Environmental Quality". SinBerBEST Annual Meeting. Singapore. 01/08/2014
- *31. Invited "Occupant satisfaction and indoor environmental quality: What matter, 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. Invited "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. Invited "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; eQuest. 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.

University Service

Campus

- *2015-16 Siebel Energy Institute Scholar program. Reviewer of applications
- *2014-15 Steering Committee of the campus Energy Initiative. Member
- *2014-15 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

- *2015-16 MS/PhD committee. Member
- *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.

Reviews of student work

- *22. 05/08/2015. Kyle Steinfeld. Studio One. Final Review. 10am-12pm
- *21. 05/05/2015. Jean Paul Bourdier A100B. Final Review. 2-4pm
- *20. 12/11/2014. René Davis. Integrated Design Studio. Final Review. 5-7pm
- *19. 09/24/2014. Chris Calott. Integrated Design Studio. HVAC systems review 2-4pm
- *18. 05/06/2014. Jean Paul Bourdier A100B. Final Review. 1-4pm

- *17. 05/02/2014. Susan Ubbelohde A245 Daylighting. 4-5.30pm
- *16. 05/13/2013. Steinfeld and Levitt. A229. Building performance vis. Final review. 6-9pm
- *15. 05/11/2013. Paz Gutierezz. Final thesis review. 2-5pm
- *14. 05/06/2013. Roddy Creedon. A100b. Final Review. 3-6pm
- *13. 04/08/2013. Renee Chow. Vertical Cities Asia Studio. Midreview. 2-4pm
- *12. 03/13/2013. Midterm thesis review. 5-7pm
- *11. 03/11/2013. Midterm thesis review. 4-6pm
- *10. 11/18/2012. Mark Anderson, René Devis, Paz Gutierezz Studio. Review. 3-5pm
- *9. 10/31/2012. Mark Anderson, René Devis, Paz Gutierezz Studio. Review. 3-6pm
- *8. 05/04/2012. Nicholas de Monchaux StudioOne. Final review. 2-6pm
- *7. 12/08/2011. Nicholas de Monchaux StudioOne. Final first semester review. 1-6pm
- *6. 11/17/2011. Raveevarn Choksombatchai Master thesis. Midterm review. 5-8pm
- *5. 10/31/2011. Nicholas de Monchaux StudioOne Final first part review. 2-5pm
- *4. 10/12/2011. Susan Ubbelohde ED 105 Deep Green Design. 9.30-11am
- *3. 10/10/2011. Jean Paul Bourdier Studio 101. Final review. 2-5pm
- *2. 09/26/2011. Jean Paul Bourdier Studio 101. Mid term review. 2-6pm
- *1. 09/21/2011. Nicholas de Monchaux StudioOne. Mid term review. 2-6pm

Other Department Service

- *13. 04/27/2016. Arch 240 lecture
- *12. 02/23/2016. Arch 298 lecture
- *11. 05/01/2016. Arch 240 lecture
- *10. 03/09/2015. Arch 207B lecture
- *9. 03/02/2015. Arch 298 MS PhD lecture
- *8. 08/26/2014. Introduction to newly admitted students
- *7. 04/12/2014. CalDay meeting with incoming students
- *6. 03/13/2014. Co-chair of panel of student presentations at Berkeley Circus 2014
- *5. 04/21/2013. CalDay meeting with incoming students
- *4. 04/08/2013. Introduction to newly admitted students
- *3. 08/21/2012. Introduction to undergraduate students
- *2. 08/22/2012. PhD/MS orientation
- *1. 03/1-2/2012. CED Berkeley Circus. Project reviewer