

ONE-PAGE SUMMARY

Qingyan “Yan” Chen, Ph.D.

Education:

Ph.D. (1988) and M.Sc. (1985), Delft University of Technology, The Netherlands
B.Sc. (1983), Tsinghua University, China

Principal Fields of Interests:

Built environment; Energy-efficient, healthy, and sustainable buildings

Current Position:

James G. Dwyer Professor of Mechanical Engineering, Purdue University, IN

Administrative Leadership:

Principal Director, FAA Center of Excellence for Airliner Cabin Environment Research (2004-2010)

Major Professional Services:

Editor-in-Chief of journal “Building and Environment”
Chair and member of various professional committees and conference organizing committees

Major Honors and Awards:

Distinguished Achievement Award, IBPSA (2013)
John Rydberg Gold Medal, SCANVAC (2011)
Willis J. Whitfield Award, Institute of Environmental Sciences and Technology (2007)
ASHRAE Fellow (2005) and ISIAQ Fellow (2002)
CAREER award from US National Science Foundation (1996)

Publications and Patents:

Books or special issues of journals edited: 9
Journal papers: 237
Papers in book chapters: 6
Papers in conference proceedings: 208
Patents awarded: 4

Invited Plenary/Keynote/Seminar Lectures: 170

Sponsored Research Projects:

Funding for 71 projects: \$24M (Chen’s share \$10M)

Major Subjects Taught:

Thermodynamics I and II
Indoor environment analysis and design
Analysis and design of HVAC systems
Energy in building design

Supervisees:

<i>Summary</i>	<i>Total</i>	<i>Completed</i>	<i>In Progress</i>
Post-Doctoral Associates	8	8	0
Ph.D. Students	35	28	7
M.Sc. and M.Eng. Students	34	31	3
Visiting Scholars/Students	25	25	0

Curriculum Vitae

Qingyan “Yan” Chen

May 3, 2019

School of Mechanical Engineering
Purdue University
585 Purdue Mall
West Lafayette, IN 47907-2088, USA

Telephone: (765)496-7562
Fax: (765)494-0539
Email : yanchen@purdue.edu
<https://engineering.purdue.edu/~yanchen/>

EDUCATION

<i>School</i>	<i>Degree</i>	<i>Date</i>
Tsinghua University, China	B.Sc. in Thermal Energy Engineering	07/1983
Delft University of Technology, The Netherlands	M.Sc. in Mechanical Engineering	12/1985
Delft University of Technology, The Netherlands	Ph.D. in Mechanical Engineering	11/1988

PRINCIPAL FIELDS OF RESEARCH INTERESTS

Computer simulations and experiment measurements of built environment
Energy-efficient, healthy, and sustainable buildings

CITATIONS FROM GOOGLE SCHOLAR

<i>Citation indices</i>	<i>All</i>	<i>Since 2014</i>
Citations	13,985	7,045
h-index	64	45
i10-index	181	145

EXPERIENCE

<i>Institution</i>	<i>Position</i>	<i>Beginning</i>	<i>Ending</i>
School of Mechanical Engineering Purdue University, IN, U.S.A.	James G. Dwyer Professor	02/2018	-
School of Mechanical Engineering Purdue University, IN, U.S.A.	Vincent P. Reilly Professor	04/2011	02/2018
School of Mechanical Engineering Purdue University, IN, U.S.A.	Professor	07/2002	-
FAA Center of Excellence for Airliner Cabin Environment Research (ACER) Purdue University, IN, U.S.A.	Principal Director	09/2004	10/2010
Department of Architecture Massachusetts Institute of Technology, MA, U.S.A.	Associate Professor	07/1998	07/2002
Department of Architecture Massachusetts Institute of Technology, MA, U.S.A.	Assistant Professor	01/1995	06/1998
TNO-Institute of Applied Physics (TPD) The Netherlands	Project Manager	04/1991	01/1995
Energy Systems Laboratory	Research Scientist	01/1989	04/1991

<i>Institution</i>	<i>Position</i>	<i>Beginning</i>	<i>Ending</i>
Swiss Federal Institute of Technology (ETH-Zürich) Switzerland			
Faculty of Mechanical Engineering Delft University of Technology, The Netherlands	Research Staff Member	01/1986	12/1988
TNO-Institute of Applied Physics (TPD) The Netherlands	Research Assistant	04/1985	12/1985

OTHER EXPERIENCE

<i>Institution</i>	<i>Position</i>	<i>Beginning</i>	<i>Ending</i>
Guangzhou University, China	Guest Professor	11/2018	10/2021
Soochow University, China	Guest Professor	06/2017	-
Xi'an Jiaotong University, China	Guest Professor	06/2013	-
Hunan University, China	New Millennium Yuelu Outstanding Visiting Professor	11/2011	-
RMIT University, Australia	Honorary Professor	07/2011	06/2014
Built Environment Research Lab, School of Environmental Science and Engineering, Tianjin University, China (on leave from Purdue)	Founding Director	08/2009	12/2010
Tokyo Polytechnic University, Japan	Guest Professor	04/2009	03/2012
Dalian University of Technology, China	Guest Professor	06/2008	-
Southeast University of Technology, China	Guest Professor	10/2005	-
Harbin Institute of Technology, Harbin, China	Visiting/Adjunct Professor	07/2006	04/2011
Technical University of Denmark, Denmark	Otto Mönsted Visiting Professor	06/2005	10/2005
Institute of Process Engineering, Chinese Academy of Sciences, Beijing, China	Collaborative Fellow	03/2005	02/2008
Tianjin University, China	Guest Professor	09/2002	-
Tsinghua University, China	Visiting Professor	11/2001	11/2004
Cardiff University, Cardiff, U.K.	Professorial Fellow	12/2000	08/2001
Helsinki University of Technology, Espoo, Finland	Visiting Professor	12/1997	12/1997

CONSULTING RECORD

<i>Institution</i>	<i>Beginning</i>	<i>Ending</i>
Allegion, IN	06/2015	05/2016
Evonik, IN	11/2013	03/2014
Canaan Winery, Woodside, CA	05/2012	12/2014
MSS Services, Germantown, MD	10/2010	08/2011
M+NLB, CA	05/2008	04/2010
Restani & McAllister, P.A., FL	09/2006	12/2009

Todd Williams & Associates P.C., IN	10/2002	10/2002
Chemfab Corporation, NH	06/2000	09/2000
ASHRAE, Inc., GA	12/2000	07/2002
United Technologies Research Center, CT	04/2000	10/2000
Baker and Associates, PA	02/2000	06/2001
Draper Laboratory, MA	07/1999	08/1999
Romeu Patriani Architect, Brazil	02/1999	11/1999
Frank O. Gehry Associates, CA	12/1998	05/1999
Halton Group, Finland	02/1997	11/1999
Philips Ltd., Taiwan	12/1996	03/1997
MIT Department of Physical Plant, MA	11/1995	07/1996
Th. Baumgartner AG, Switzerland	10/1990	10/1991
Meierhans & Partners AG, Switzerland	02/1990	04/1991

DEPARTMENTAL AND UNIVERSITY COMMITTEES, SERVICES, ETC.

<i>Activity</i>	<i>Function</i>	<i>Beginning</i>	<i>Ending</i>
ReCourse Team, School of Mechanical Engineering, Purdue University	Member	2017	2017
Strategic Planning Committee, School of Mechanical Engineering, Purdue University	Member	2016	2017
Thermo-Fluid Faculty Search Committee, School of Mechanical Engineering, Purdue University	Chair	2016	2016
Mechanical Engineering Leadership Committee, Purdue University	Member	2015	2017
Combustion, Energy Utilization, and Thermodynamics area, School of Mechanical Engineering, Purdue University	Area Chair	2015	2017
Research Professor Selection Committee, School of Mechanical Engineering, Purdue University	Chair	2015	2015
Faculty Search Committee, School of Mechanical Engineering, Purdue University	Member	2014	2015
Research Professor Selection Committee, School of Mechanical Engineering, Purdue University	Chair	2014	2014
Faculty Research Committee, School of Mechanical Engineering, Purdue University	Member	2012	2013
Graduate Committee, School of Mechanical Engineering, Purdue University	Member	2012	2013
Construction and Management Engineering Faculty Search Committee, School of Civil Engineering, Purdue University	Co-Chair	2007	2009
Campus Grievance Steering Committee, Purdue University	Member	2007	2011
Research Committee, School of Mechanical Engineering	Member	2005	2008
Engineered Spaces/Intelligent Buildings Faculty Search Committee, College of Engineering, Purdue University	Chair	2005	2006
Fellowship Committee, Herrick Laboratories, School of Mechanical Engineering, Purdue University	Member	2005	–
University Senate, Purdue University	Member	2004	2007
University Senate Policy and Resource Committee, Purdue	Member	2004	2007

<i>Activity</i>	<i>Function</i>	<i>Beginning</i>	<i>Ending</i>
University			
Safety Committee, Herrick Laboratories, School of Mechanical Engineering, Purdue University	Member	2003	2007
Intelligent Infrastructure Search Committee, College of Engineering, Purdue University	Member	2003	2006
B.S.F. Schaefer Young Faculty Award Committee, School of Mechanical Engineering, Purdue University	Member	2003	2003
Primary Committee, School of Mechanical Engineering, Purdue University	Member	2002	–
Computer Resource Advisory Panel, Department of Architecture, Massachusetts Institute of Technology	Member	2000	2002
Bachelor of Science in Building Technology Program Committee, Department of Architecture, Massachusetts Institute of Technology	Member	1997	2002
Undergraduate Research Opportunity Program, Department of Architecture, Massachusetts Institute of Technology	Coordinator	1996	2002
SmarchS Admissions Committee, Department of Architecture, Massachusetts Institute of Technology	Member	1996	2002
B.Arch, SmarchS, SMBT, Ph.D. (BT) Programs, Department of Architecture, Massachusetts Institute of Technology	Advisor	1995	2002
SMBT and Ph.D. (BT) Admissions Committee, Department of Architecture, Massachusetts Institute of Technology	Member	1995	2002
Building Technology Faculty Search Committee, Department of Architecture, Massachusetts Institute of Technology	Member	1997	2000
Building Technology Lecture Series, Department of Architecture, Massachusetts Institute of Technology	Organizer	1999	1999
Department Council, Department of Architecture, Massachusetts Institute of Technology	Member	1998	1999
Department Council, Department of Architecture, Massachusetts Institute of Technology	Member	1997	1997
Building Technology Lecture Series, Department of Architecture, Massachusetts Institute of Technology	Organizer	1995	1997

PROFESSIONAL COMMITTEES, SERVICES, ETC.

<i>Journal</i>	<i>Function</i>	<i>Beginning</i>	<i>Ending</i>
Theoretical & Applied Mechanics Letters	Editorial Board Member	2015	-
Sustainable Cities and Society	Editorial Board Member	2014	-
Building Simulation	Editorial Board Member	2012	-
Energy and Buildings	Editorial Board Member	2009	2014
Building and Environment	Editor-in-Chief	2007	-
Indoor Air	Editorial Board Member	2007	2007*
Energy and Buildings	Editorial Board Member	2005	2007*
China Particuology	Editorial Board Member	2005	2007*
Chinese Building Energy and Environment	Editorial Board Member	2004	2007*

HVAC&R Research	Associate Editor	2003	2007*
International Journal of Ventilation	Editorial Board Member	2003	2007*
International Journal of Architecture Science	Editorial Board Member	2000	2007*

*Resigned due to contractual agreement with Elsevier, the publisher of “Building and Environment”.

<i>Conference</i>	<i>Function</i>	<i>Date</i>
The 9 th International Conference on Sustainable Development in Building and Environment (2019 SuDBE), Reading and Cambridge, UK	Scientific Committee Member	July 22-28, 2019
The 11 th International Symposium on Heating, Ventilating and Air Conditioning – ISHVAC2019, Harbin, China	Advisory Chair	July 12-15, 2019
The 9 th Indoor Environment and Health Building Conference and the 4 th International Symposium on Bioaerosols, Nanjing, China	Scientific Committee Member	May 10-12, 2019
The 7 th International Building Physics Conference (IBPC 2018), Syracuse, NY, USA	International Scientific Committee Member	Sept. 23-26, 2018
The 14 th International Conference on Air Distribution in Rooms (ROOMVENT 2018) and the 12 th International Conference on Industrial Ventilation (Ventilation 2018), Espoo, Finland	Scientific Committee Member	June 2-5, 2018
The 10 th International Symposium on Heating, Ventilating and Air Conditioning – ISHVAC2017, Jinan, China	Scientific Committee Member	Oct. 19-22, 2017
Low Carbon Cities, Low Carbon Buildings, SBE16 Chongqing, Chongqing, China	Scientific Committee Member	Nov.5-6, 2016
The 9 th International Indoor Air Quality, Ventilation and Energy Conservation in Buildings Conference (IAQVEC 2016), Seoul, Korea	International Advisory Committee Member	Oct. 23-26, 2016
World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium (WMCAUS), Prague, Czech	Scientific Committee Member	June 13-26, 2016
The 10 th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA 2016, Aalborg, Denmark	International Scientific Committee Member	May 22-25, 2016
The 11 th International Conference on Industrial Ventilation (Ventilation 2015), Shanghai, China	International Scientific Committee Member	Oct. 26-28, 2015
International Conference of Cold Climate HVAC, Dalian, China	International Scientific Committee Member	Oct. 20-23, 2015
Healthy Buildings 2015 America, Boulder, CO, USA	Scientific Committee Member	July 19-22, 2015
The 9 th International Symposium on Heating, Ventilating and Air Conditioning – ISHVAC2015 and the 3 rd International Conference on Building Energy and Environment (COBEE 2015), Tianjin, China	Organizing Committee Member	July 12-15, 2015
The 6 th International Building Physics Conference (IBPC 2015), Torino, Italy	International Scientific Committee Member	June 15-18, 2015
The 6 th International Conference of Energy and Environment of Residential Buildings (ICEERB 2014), Zhengzhou, Henan, China	International Scientific Committee Member	Nov. 8-10, 2014
The 13 th International Conference on Air Distribution in Rooms (ROOMVENT 2014), São Paulo, Brazil	International Scientific Committee Member	Oct. 19-22, 2014
The 13 th International Conference on Indoor Air Quality and	International Scientific	July 7-12,

Conference	Function	Date
Climate (Indoor Air 2014), Hong Kong	Committee Member	2014
International Sustainable Built Environment Conference (ISBE 2014), Doha, Qatar	International Scientific Committee Member	Jan. 28-30, 2014
The 8 th International Symposium on Heating, Ventilating and Air Conditioning – ISHVAC2013, Xi’an, China	International Scientific Committee Member	Oct. 19-21, 2013
The 13 th International IBPSA Conference (Building Simulation 2013), Chambéry, France	International Scientific Committee Member	Aug. 25-30, 2013
The APEC Conference on Low Carbon Town and Physical Energy Storage, Changsha, China	International Scientific Committee Member	May 25-26, 2013
The 10 th International Conference on Industrial Ventilation (Ventilation 2012), Paris, France	Scientific Committee Member	Sept. 17-19, 2012
The 2 nd International Conference on Building Energy and Environment (COBEE 2012), Boulder, CO, USA	Conference Technical Chair	Aug. 1-4, 2012
The 10 th International Healthy Buildings Conference – HB2012, Brisbane, Australia	International Advisory Committee Member	July 8-12, 2012
The 12 th International IBPSA Conference (Building Simulation 2011), Sydney, Australia	International Scientific Committee Member	Nov. 14-16, 2011
The 7 th International Symposium on Heating, Ventilating and Air Conditioning – ISHVAC2011, Shanghai, China	International Scientific Committee Member	Nov. 6-9, 2011
The 5 th International Conference on Sustainable Development in Building and Environment (2011 SuDBE), Chongqing, China	Co-Chair	Oct. 28-31, 2011
The 2 nd International Symposium on Aircraft Airworthiness, Beijing, China	Scientific Committee Member	Oct. 26-28, 2011
The Third International Conference on Advances in System Simulation – SIMUL 2011, Barcelona, Spain	Program Committee Member	Oct. 23-28, 2011
The 12 th International Conference on Air Distribution in Rooms (ROOMVENT 2011), Trondheim, Norway	International Scientific Committee Member	June 19-22, 2011
The 12 th International Conference on Indoor Air Quality and Climate (Indoor Air 2011), Austin, Texas, USA	Advisory Committee Member	June 5-10, 2011
World Renewable Energy Congress, Linköping, Sweden	International Scientific Committee Member	May 8-13, 2011
First International Conference on Sustainable Urbanization, Hong Kong	International Scientific Committee Member	Dec. 15 – 17, 2010
ASHRAE’s IAQ 2010 Conference – Airborne Infection Control – Ventilation, IAQ & Energy, Kuala Lumpur, Malaysia	International Scientific Committee Member	Nov. 10 – 12, 2010
International Workshop on Ventilation, Comfort, and Health in Transport Vehicles, Tianjin, China	Chair	Nov. 5-6, 2010
International Symposium in Contaminant Control, ISCC 2010, Tokyo, Japan	International Scientific Committee Member	Oct. 5 – 9, 2010
The 3 rd International Conference on Passive and Low Energy Cooling for the Built Environment (PALENC 2010), the 5 th European Conference on Energy Performance & Indoor Climate in Buildings (EPIC 2010), and the 1 st Cool Roofs Conference,	International Scientific Committee Member	Sept. 29 – Oct. 1, 2010

<i>Conference</i>	<i>Function</i>	<i>Date</i>
Rhodes Island, Greece		
The 9 th International Conference on Sustainable Energy Technologies, Shanghai, China	International Scientific Committee Member	Aug. 24-27, 2010
The Second International Conference on Advances in System Simulation, SIMUL 2010, Nice, France	International Scientific Committee Member	Aug. 22 – 27, 2010
International Conference on Building Envelope Systems and Technologies, ICBEST 2010, Vancouver, BC, Canada	International Scientific Committee Member	June 27 – 30, 2010
The 8 th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA 2010, Antalya, Turkey	International Scientific Committee Member	May 9 – 12, 2010
The 2 nd International Symposium on Computational Mechanics (ISCM II) in conjunction with the 12 th International Conference on the Enhancement and Promotion of Computational Methods in Engineering and Science (EPMESC XII), Hong Kong and Macau	International Advisory Committee Member	Nov. 30 – Dec. 3, 2009
The 6 th International Symposium on HVAC (ISHVAC 09), Nanjing, China	International Scientific Committee Member	Nov. 6 – 9, 2009
2009 International Conference on Sustainable Development in Building and Environment, Chongqing, China	Conference Co-Chair	Oct. 28 – 30, 2009
The 11 th International IBPSA Conference (Building Simulation 2009), Glasgow, UK	Scientific Committee Member	July 27 – 30, 2009
The 5 th International Workshop on Energy and Environment of Residential Buildings and the 3 rd International Conference on Built Environment and Public Health, Guilin, China	International Advisory Committee Member	May 27 – 29, 2009
The 11 th International Conference on Air Distribution in Rooms (ROOMVENT 2009), Busan, Korea	International Scientific Committee Member	May 23 – 27, 2009
The 11 th International Conference on Indoor Air Quality and Climate (Indoor Air 2008), Copenhagen, Denmark	International Scientific Committee Member	Aug. 17 – 22, 2008
The 1 st International Conference on Building Energy and Environment (COBEE 2008), Dalian, China	Co-Chair, Organizing Committee	July 13 – 16, 2008
The 6 th International Indoor Air Quality, Ventilation and Energy Conservation in Buildings Conference (IAQVEC 2007), Sendai, Japan	International Scientific Committee Member	Oct. 28 – 30, 2007
Sustainable Development in Building and Environment, Chongqing, China	International Scientific Committee Member	Sept. 25 – 27, 2007
The 10 th International IBPSA Conference (Building Simulation 2007), Beijing, China	Scientific Committee Member	Sept. 3 – 6, 2007
The 10 th International Conference on Air Distribution in Rooms (ROOMVENT 2007), Helsinki, Finland	International Scientific Committee Member	June 13 – 15, 2007
The 7 th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA 2007, Helsinki, Finland	International Scientific Committee Member	June 10 – 14, 2007
IAQ 2007 Workshop on Indoor Air Quality Research in China	Scientific Committee Member	April 23 – 24, 2007
The 4 th International Workshop on Energy and Environment of Residential Buildings, Harbin, China	International Advisory Committee Member	Jan. 15 – 16, 2007
The 8 th Healthy Buildings Conference (Healthy Buildings 2006),	International Advisory	June 4 –

Conference	Function	Date
Lisbon, Portugal	Committee Member	8, 2006
The 8 th International Symposium on Ventilation for Contaminant Control (Ventilation 2006), Chicago, IL, USA	National Program Committee Member	May 13 – 16, 2006
The 6 th International Conference on Tall Buildings, Hong Kong	Binternational Advisory Committee	Dec. 12 – 14, 2005
The 10 th International Conference on Indoor Air Quality and Climate (Indoor Air 2005), Beijing, China	Vice President	Sept. 4 – 9, 2005
The 9 th International IBPSA Conference (Building Simulation 2005), Montreal, Canada	Scientific Committee Member	Aug. 15 – 18, 2005
The 9 th International Conference on Air Distribution in Rooms (ROOMVENT 2004), Coimbra, Portugal	International Scientific Committee Member	Sept. 5 – 8, 2004
The 7 th International Conference on Building and Urban Environmental Engineering, Tianjin, China	International Scientific Committee Member	May 11 – 15, 2004
CIB World Building Congress (CIB 2004), Toronto, Canada	International Scientific Committee Member	May 2 – 7, 2004
The 4 th International Symposium on HVAC (ISHVAC 03), Beijing, China	International Scientific Committee Member	Oct. 9 – 11, 2003
The 8 th International Conference on Air Distribution in Rooms (ROOMVENT 2002), Copenhagen, Denmark	International Scientific Committee Member	Sept. 8 – 11, 2002
The 4 th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (IAQVEC2001), Changsha, Hunan, China.	International Scientific Committee Member	Oct. 2 – 5, 2001
The 7 th International IBPSA Conference (Building Simulation 2001), Rio de Janeiro, Brazil	Scientific Committee Member	Aug. 13 – 15, 2001
The 7 th International Conference on Air Distribution in Rooms (ROOMVENT 2000), Reading, UK	International Scientific Committee Member	July 9 – 12, 2000
The 3 rd International Symposium on HVAC (ISHVAC 99), Shenzhen, China	International Technical Committee Member	Nov. 17 – 19, 1999
The 6 th International IBPSA Conference (Building Simulation '99), Kyoto, Japan	Scientific Committee Member	Sept. 13 – 15, 1999
The 6 th International Conference on Air Distribution in Rooms (ROOMVENT '98) Conference, Stockholm, Sweden	Rapporteur of Summary Report	June 14 – 17, 1998

Committee of Professional Society	Function	Beginning	Ending
ASHRAE Research Project Evaluation Committee and Monitoring Committee (RP-1167)	Chair	2002	2007
ASHRAE Technical Committee 5.8: Industrial Ventilation	Member/Corresponding Member	2000	–
ASHRAE Technical Committee 4.10: Indoor Environmental modeling	Member/Corresponding Member	1996	–
ASHRAE Technical Committee 4.3: Ventilation Requirements and Infiltration	Corresponding member	1999	–

ASHRAE Technical Committee 5.3: Room Air Distribution	Member/Corresponding Member	1996	–
ASHRAE Technical Committee 5.8: Industrial Ventilation, Research Sub-committee	Chair	1999	2004
MIT Student Branch of ASHRAE	Founding faculty advisor	1995	2002
ASHRAE Technical Committee 2.5: Air Flow Around Buildings	Member	1996	1997

<i>Review/Assessment/Advisory Committee</i>	<i>Function</i>	<i>Beginning</i>	<i>Ending</i>
Research Assessment Exercise Mockup Panel, The University of Hong Kong, Hong Kong	Chair	2017	2017
Research Assessment Exercise, University Grants Council, Hong Kong	Engineering Panel member	2014	2014
Scientific Advisory Board, EoN Energy Center, RWTH Aachen University, Germany	Chair and member	2011	2016
Department of Building Service and Engineering, Hong Kong Polytechnic University, Hong Kong	Department Academic Advisor	2011	2016
Department of Building Service and Engineering, Hong Kong Polytechnic University, Hong Kong	External Examiner	2008	2011
Strategically Targeted Research in Intelligent Built Environmental Systems, Syracuse University, USA	Scientific Advisory Committee Member	2008	2009
Danish Centre for Indoor Environment and Energy, Denmark	Review Committee Member	2002	2002

External Ph.D. Theses Examiner/Committee Member

Haoran Chen, “Modeling and balancing of HVAC air duct system,” Nanyang Technological University, Singapore, 2016.

Shichao Liu, “The effects of indoor air jets on air distribution and human exposure to particles,” University of Texas at Austin, TX, 2014.

Ali Khazraei Vizhemehr, “Predicting the performance of activated carbon filters at low concentrations using accelerated tests data,” Concordia University, Canada, 2014.

Wout Parys, “Cost optimization of cellular office buildings based on building energy simulation,” KU Leuven, Belgium, 2013.

Lina Wang, “Quantification of particle emission characteristics and development of an emission model for use in transport microenvironments affected by traffic emissions,” Queensland University of Technology, Australia, 2010.

Nirupam Rohatgi, “Transient simulation of integrated room and air conditioning system,” Indian Institute of Technology, Delhi, India, 2010.

Jian Zhang, “Investigation of airflow and heat transfer in earth-to-air heat exchanger,” Concordia University, Canada, 2009.

Kiao Inthavong, “Simulation of fluid dynamics and particle transport in a realistic human nasal cavity,” RMIT University, Melbourne, Australia, 2008.

Teshome E. Jiru, "A new generation of zonal models: development, verification and application," Concordia University, Canada, 2006.

Hongyu Huang, "Modeling of volatile organic compounds emission and sink of building materials," Concordia University, Canada, 2003.

Zhijian Kang, "Thermal environment and human response in occupied defense shelters in the humid tropics," National University of Singapore, Singapore, 2002.

Zaiyi Liao, "Methodology for forecasting residential energy demand in China: an approach to technological impacts," Hong Kong Polytechnic University, Hong Kong, 2001.

Awad S. Bodalal, "Fundamental mass transfer modeling of emission of volatile organic compounds from building materials," Carleton University, Ottawa, Canada, 1999.

Internal Ph.D. Thesis Committees

Iason Konstantzos, "A human-centered approach for the design of perimeter office spaces based on visual environment criteria," School of Civil Engineering, Purdue University, 2016.

Jianjun Hu, "A study of model-predictive control strategies for buildings with mixed-mode cooling," School of Civil Engineering, Purdue University, 2014.

Siwei Li, "Modeling of photovoltaic thermal systems with transpired solar collectors integrated in building operation simulation," School of Civil Engineering, Purdue University, 2014.

Duo Xu, "Experimental study of turbulent stratified jet," School of Mechanical Engineering, Purdue University, 2012.

Soojung Lim, "Modeling and design of a ultraviolet disinfection reactor for air recirculation systems," School of Civil Engineering, Purdue University, 2010.

Chenzhou Lian, "Solution limited time stepping method and numerical simulation of single-element rocket engine combustor," School of Mechanical Engineering, Purdue University, 2009.

Sang-Hun Lee, "Simultaneous removal of ethylene and ammonia gases using biofiltration," Department of Agricultural and Biological Engineering, Purdue University, 2008.

Kyoungho Lee, "Demand-limiting control using building thermal mass in commercial buildings," School of Mechanical Engineering, Purdue University, 2006.

Huajun Lu, "Evaluation of activated carbon fibers (ACF) for removal of volatile organic compounds (VOCs) in indoor environment," School of Health Sciences, Purdue University, 2005.

Dong Luo, "Detection and diagnosis of faults and energy monitoring of HVAC systems with least-intrusive power analysis," Building Technology Program, Massachusetts Institute of Technology, 2001.

David Lorenzetti, "Numerical solution of nonlinear algebraic systems in building energy modeling," Building Technology Program, Massachusetts Institute of Technology, 1997.

Peer Reviewer

Austrian Science Fund FWF
California Energy Institute
Cambridge University Press
Chinese Ministry of Education
Chinese Ministry of Science and Technology
City University of Hong Kong Research Grants
Hong Kong Polytechnic University Grants
Journals
 Aerospace Science and Technology
 Annals of Occupational Hygiene
 Applied Mathematical Modelling

Applied Thermal Engineering
 ASHRAE Journal
 ASHRAE Transactions
 Atmospheric Environment
 Automation in Construction
 Building and Environment
 Building Research & Information
 Chemical Engineering Science
 Chemical & Process Engineering
 Energy and Buildings
 Environmental Science and Technology
 Epidemiology and Infection
 Heat Transfer Engineering
 HVAC&R Research
 Indoor + Built Environment
 Indoor Air
 Influenza and Other Respiratory Viruses
 International Journal for Numerical Methods in Fluids
 International Journal of Refrigeration
 International Journal of Thermal Sciences
 International Journal of Ventilation
 Journal of Aerosol Science
 Journal of the Air & Waste Management Association
 Journal of Biomechanical Engineering
 Journal of Environmental Engineering
 Journal of Fluid Engineering
 Journal of Fluid Mechanics
 Journal of Hazardous Materials
 Journal of Solar Energy Engineering
 Measurement Science and Technology
 Numerical Heat Transfer
 Natural Sciences and Engineering Research Council of Canada
 Research Grants Council, Hong Kong
 Qatar National Research Fund
 Swedish Research Council
 University Grants Committee, Hong Kong
 U.S. Department of Energy
 U.S. Department of State
 U.S. National Science Foundation
 World Book Encyclopedia

HONORS AND AWARDS RECEIVED

Best Paper Award, Roomvent and Ventilation 2018 Conference, Helsinki, Finland, 2018
 Oversea Famous Scholar, State Administration of Foreign Experts Affairs, China, 2018
 James G. Dwyer Professorship, Purdue University, USA, 2018
 Distinguished Achievement Award “to recognize individuals who have made substantial contributions to the field of building performance simulation over the course of their careers,” International Building Performance Simulation Association (IBPSA), 2013
 Oversea Chinese Contribution Award (Creative Talents) “for outstanding achievements in serving China,” All-China Federation of Returned Overseas, 2012
 Haihe Friendship Award Nominee “in recognition of foreign experts having made outstanding contributions in the city’s economic and social development,” Tianjin City, China, 2012
 Discovery in Mechanical Engineering Award, School of Mechanical Engineering, Purdue University, 2011
 John Rydberg Gold Medal for “outstanding contribution to the advancement of modelling and measurement of ventilation and air distribution in buildings,” Scandinavian Federation of Heating, Ventilating and

Sanitary Engineering Associations in Denmark, Finland, Iceland, Norway and Sweden (SCANVAC), 2011

Vincent P. Reilly Professorship, Purdue University, USA, 2011

Honorary Professor, RMIT University, Australia, 2011-2014

Distinguished Lecturer, American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), 2011-2013

Special Expert, Tianjin City, China, 2010

Most Cited Article, Published in *Building and Environment* between 2005-2008, Elsevier

Best Paper, International Building Performance Simulation Association – USA Branch (IBPSA-USA), Winter Meeting, Chicago, Illinois, USA, 2009

Chang Jiang Chair Professor, Ministry of Education, China, 2008-2011

Willis J. Whitfield Award “for significant contributions to the field of contamination control through numerous published papers, studies, and reports,” Institute of Environmental Sciences and Technology, 2007

Exceptional Service Award, ASHRAE, 2006

Fellow, ASHRAE, 2005

Otto Mönsted Visiting Professor, Technical University of Denmark, 2005-2005

Seed for Success Award, Purdue University, 2005

Oversea Well-Known Scholar, Chinese Academy of Sciences, 2004

Member of the International Academy of Indoor Air Sciences, 2002 (When the Academy merged in 2005 with the International Society of Indoor Air Quality, the Academy member was renamed as ISIAQ Fellow)

Best Poster Presentation Award, ASHRAE, 2002

Distinguished Service Award, ASHRAE, 2001

Best Technical/Symposium Paper Award, ASHRAE, 2000

Best Poster Presentation Award, ASHRAE, 2000

Atlantic Richfield Career Development Professorship in Energy Studies, MIT, 1999-2002

Faculty Early Career Development Award, US National Science Foundation, 1996

Best Poster Award, The 2nd World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA2000, 1989

PROFESSIONAL MEMBERSHIPS

Asia-Pacific Association for Public Safety Science and Technology, Founding Board Member, Since 2008.

International Society of Indoor Air Quality (ISIAQ), Since 2005.

International Building Performance Simulation Association (IBPSA), Since 2001.

American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), Since 1989.

PATENTS

4. Shen, X., Cao, Q., Huang, Y., Yin, J., Chen, Q., and Liu, J. 2014. A simultaneous, automatic measuring device for measuring multiple fields of indoor environment, ZL 2014 2 0050365.0, China.
3. Sun, H., Liu, J., Chen, Q., and Li, W. 2011. An individual personalized ventilating seat. ZL 2011 2 0554171.0
2. Chen, Q. and Paige, J. 2010. Ventilated window for air quality improvement in buildings, US 7,641,545, United States.
1. Chen, Q. 2007. An airflow window that can improve indoor air quality, ZL 2006 2 0131845.5, China.

PUBLICATIONS

Books and Special Issues of Journals Edited

9. Chen, Q., Zhai, Z., You, X., and Zhang, T. 2017. *Inverse Design Methods for the Built Environment*, Taylor & Francis, Oxford, UK. <https://www.amazon.com/Inverse-Design-Methods-Built-Environment/dp/1138204986>
8. Mak, C.M. and Chen, Q. (Guest Editors) 2015. “Building acoustics and noise control,” *Building and Environment*, <http://www.sciencedirect.com/science/journal/03601323/vsi>

7. Chen, Q. (Guest Editor) 2007. "Computer simulations and experimental measurements of air distributions in buildings: past, present, and future," *HVAC&R Research*, 13(6), 849-997.
6. Chen, Q., Yang, X., and Zhao, B. (Guest Editors) 2007. "Indoor Air 2005 – 10th international conference on indoor air quality and climate (Part II)," *Atmospheric Environment*, 41(25), 5179-5288.
5. Chen, Q., Su, H.-J., and Smith, K.R. (Guest Editors) 2006. "Selected Papers from Indoor Air 2005," *Indoor Air*, 16(5), 327-401.
4. Chen, Q. and Li, X. (Guest Editors) 2006. Advanced Systems and Equipment for the Indoor Environment: Selected papers from Indoor Air 2005 conference, *HVAC&R Research*, 12(3c), 821-951.
3. Zhao, R., Zhao, B., and Chen, Q. (Guest Editors) 2005. Abstracts for the 10th International Conference on Indoor Air Quality and Climate, *Indoor Air*, 15 (supplement 11), 241 pages.
2. Chen, Q. and Glicksman, L.R. 2003. *System Performance Evaluation and Design Guidelines for Displacement Ventilation*, 129 pages, ASHRAE, Atlanta, GA.
1. Chen, Q. 1988. *Indoor Airflow, Air Quality and Energy Consumption of Buildings*, 156 pages, Krips Repro Meppel, The Netherlands.

Journal Papers:

237. Liu, S., Pan, W., Cao, Q., Long, Z., Jiang, Y., and Chen, Q. 2019. "CFD simulations of natural cross ventilation through an apartment with modified hourly wind information from a meteorological station," *Energy and Buildings*, (Accepted).
236. Cao, Q., Xu, Q., Lin, C.-H., Wei, D., Deng, Z., and Chen, Q. 2019. "Study of particle deposition on the complex components of environmental control systems," *International Journal of Heat and Mass Transfer*, 135: 1218-1232.
235. Zhao, X. and Chen, Q. 2019. "Inverse design of indoor environment using an adjoint RNG k- ϵ turbulence model," *Indoor Air*, 29: 320-330.
234. Lai, D., Liu, W., Gan, T., Liu, K., and Chen, Q. 2019. "A review of mitigating strategies to improve the thermal environment and thermal comfort in urban outdoor spaces," *Science of the Total Environment*, 661: 337-353.
233. Wei, Y., Liu, W., Yu, X., Zhai, Z., Chen, Q., and Zhang, T. 2019. "Inverse design of aircraft cabin ventilation by integrating three methods," *Building and Environment*, 150: 33-43.
232. Zhou, X., Lai, D., and Chen, Q. 2019. "Experimental investigation of thermal comfort in a passenger car under driving conditions," *Building and Environment*, 149: 109-119.
231. Pan, W., Liu, S., Li, S., Cheng, X., Zhang, H., Long, Z., Zhang, T., and Chen, Q. 2019. "A model for calculating single-sided natural ventilation rate in an urban residential apartment," *Building and Environment*, 147: 372-381.
230. Cao, Q., Chen, C., Liu, S., Lin, C.-H., Wei, D., and Chen, Q. 2018. "Prediction of particle deposition around the cabin air supply nozzles of commercial airplanes using measured in-cabin particle emission rates," *Indoor Air*, 28: 852-865.
229. Deng, Z. and Chen, Q. 2018. "Artificial neural network models using thermal sensations and occupants' behavior for predicting thermal comfort," *Energy and Buildings*, 174: 587-602.
228. Liu, S., Pan, W., Zhao, X., Zhang, H., Cheng, X., Long, Z., and Chen, Q. 2018. "Influence of surrounding buildings on wind flow around a building predicted by CFD simulations," *Building and Environment*, 140: 1-10.
227. Liu, W. and Chen, Q. 2018. "Development of adaptive coarse grid generation methods for fast fluid dynamics in simulating indoor air flow," *Journal of Building Performance Simulation*, 11(4): 470-484.
226. Zhao, X., Liu, W., Lai, D., and Chen, Q. 2018. "Optimal design of an indoor environment by the CFD-based adjoint method with area-constrained topology and cluster analysis," *Building and Environment*, 138: 171-180.
225. You, R., Zhang, Y., Zhao, X., Lin, C.-H., Wei, D., Liu, J., and Chen, Q. 2018. "An innovative personalized displacement ventilation system for airliner cabins," *Building and Environment*, 137: 41-50.
224. Liu, W., Zhao, X., and Chen, Q. 2018. "A novel method for measuring air infiltration rate in buildings," *Energy and Buildings*, 168: 309-319.
223. Zou, Y., Zhao, X., and Chen, Q. 2018. "Comparison of STAR-CCM+ and ANSYS Fluent for simulating indoor airflows," *Building Simulation*, 11(1): 165-174.
222. Lai, D., Zhou, X., and Chen, Q. 2017. "Measurements and predictions of the skin temperature of human subjects on outdoor environments," *Energy and Buildings*, 151: 476-486.

221. Lai, D., Zhou, X., and Chen, Q. 2017. "Modelling dynamic thermal sensation of human subjects in outdoor environments," *Energy and Buildings*, 149: 16-25.
220. Zhao, X., Liu, W., Liu, S., Zou, Y., and Chen, Q. 2017. "Inverse design of an indoor environment by using a CFD-based adjoint method with adaptive step size for adjusting design parameter" Accepted by *Numerical Heat Transfer, Part A: Applications*. 71(7): 707-720.
219. Liu, S., Pan, W., Zhang, H., Cheng, X., Long, Z., and Chen, Q. 2017. "CFD simulations of wind distribution in an urban community with a full-scale geometrical model," *Building and Environment*, 117: 11-23.
218. Liu, W., You, R., Zhang, J., and Chen, Q. 2017. "Development of a fast fluid dynamics-based adjoint method for the inverse design of indoor environments," *Journal of Building Performance Simulation*, 10(3): 326-343.
217. Cao, Q., Xu, Q., Liu, W., Lin, C.-H., Wei, D., Baughcum, S., Norris, S., and Chen, Q. 2017. "In-flight monitoring of particle deposition in the environmental control systems of commercial airliners in China" *Atmospheric Environment*, 154: 118-128.
216. Liu, Y., Cao, Q., Liu, W., Lin, C.-H., Wei, D., Baughcum, S., Norris, S., Long, Z., Shen, X., and Chen, Q. 2017. "Numerical modeling of particle deposition in the environmental control systems of commercial airliners on ground," *Building Simulation*, 10(2): 265-275.
215. Zhang, C., Heiselberg, P.K., Chen, Q., and Pomianowski, M. 2017. "Numerical analysis of diffuse ceiling ventilation and its integration with a radiant ceiling system," *Building Simulation*, 10(2): 203-218.
214. You, R., Chen, J., Lin, C.-H., Wei, D., and Chen, Q. 2017. "Investigating the impact of gaspers on cabin air quality in commercial airliners with a hybrid turbulence model," *Building and Environment*, 111: 110-122.
213. Chen, W., Liu, J., Li, F., Cao, X., Li, J., Zhu, X., and Chen, Q. 2017. "Ventilation similarity of an aircraft cabin mockup with a real MD-82 commercial airliner," *Building and Environment*, 111: 80-90.
212. You, R., Liu, W., Chen, J., Lin, C.-H., Wei, D., and Chen, Q. 2016. "Predicting airflow distribution and contaminant transport in aircraft cabins with a simplified gasper model," *Building Performance Simulation*, 9(6): 699-708.
211. Li, B., Li, J., Huang, Y., Yin, H., Lin, C.-H., Wei, D., Shen, X., Liu, J., and Chen, Q. 2016. "Experimental studies of thermal environment and contaminant transport in a commercial aircraft cabin with gaspers on," *Indoor Air*, 26: 806-819.
210. Zheng, L., Chen, Q., Xu, J., and Wu, F. 2016. "Evaluation of intervention measures for respiratory disease transmission on cruise ships," *Indoor and Built Environment*, 25: 1267-1278.
209. You, R., Chen, J., Shi, Z., Liu, W., Lin, C.-H., Wei, D., and Chen, Q. 2016. "Experimental and numerical study of airflow distribution in an aircraft cabin mockup with a gasper on," *Building Performance Simulation*, 9(5): 555-566.
208. Chen, C., Lin, C.-H., Wei, D., and Chen, Q. 2016. "Modeling particle deposition on the surfaces around a multi-slot diffuser," *Building and Environment*, 107: 79-89.
207. Shi, Z., Chen, J., You, R., Chen, C., and Chen, Q. 2016. "Modeling of gasper-induced jet flow and its impact on cabin air quality," *Energy and Buildings*, 127: 700-713.
206. Yin, H., Shen, X., Huang, Y., Feng, Z., Long, Z., Duan, R., Lin, C.-H., Wei, D., Sasanapuri, B., and Chen, Q. 2016. "Modeling dynamic responses of aircraft environmental control systems by coupling with cabin thermal environment simulations," *Building Simulation*, 9(4): 459-468.
205. Liu, W., Jin, M., Chen, C., You, R., and Chen, Q. 2016. "Implementation of a fast fluid dynamics model in OpenFOAM for simulating indoor airflow," *Numerical Heat Transfer, Part A: Applications*, 69(7): 748-762.
204. Zuo, W., Wetter, M., Tian, W., Li, D., Jin, M., and Chen, Q. 2016. "Coupling indoor airflow, HVAC, control and building envelope heat transfer in the Modelica buildings library," *Journal of Building Performance Simulation*, 9(4): 366-381.
203. Zhou, H., Li, W., Chen, Y., Lai, D., Sun, H., and Chen, Q. 2016. "A case study of industrial building energy performance in a cold climate region in a developing country," *Journal of Performance of Constructed Facilities*, 30(2): 04015001, 9 pages, DOI: 10.1061/(ASCE)CF.1943-5509.0000735.
202. Chen, C., Zhang, X., Groll, E., McKibben, A., Long, N., Dexter, M., and Chen, Q. 2016. "A method of assessing the energy cost saving from using an effective door closer," *Energy and Buildings*, 118: 329-338.

201. Lai, D. and Chen, Q. 2016. "A two-dimensional model for calculating heat transfer in the human body in a transient and non-uniform thermal environment," *Energy and Building*, 118: 114-122.
200. Zhang, J., Long, Z., Liu, W., and Chen, Q. 2016. "Strategy for studying ventilation performance in factories," *Aerosol and Air Quality Research*, 16: 442-252.
199. Shi, Z., Chen, J., and Chen, Q. 2016. "On the turbulence models and turbulent Schmidt number in simulating stratified flows," *Journal of Building Performance Simulation*, 9(2): 134-148.
198. Liu, W., Jin, M., Chen, C., and Chen, Q. 2016. "Optimization of air supply location, size, and parameters in enclosed environments through using a CFD-based adjoint method," *Journal of Building Performance Simulation*, 9(2): 149-161.
197. Zhou, H., Qiao, L., Jiang, Y., Sun, H., and Chen, Q. 2016. "Recognition of air-conditioner operation from indoor air temperature and relative humidity by a data mining approach," *Energy and Buildings*, 111: 233-241.
196. Cao, Q., Liu, Y., Liu, W., Lin, C.-H., Wei, D., Baughcum, S., Norris, S., Shen, X., Long, Z., and Chen, Q. 2016. "Experimental study of particle deposition in the environmental control systems of commercial airliners," *Building and Environment*, 96: 62-71.
195. Zhang, Y., Li, J., Sun, H., Liu, J., and Chen, Q. 2015. "Evaluation of different air distribution systems for sleeping spaces in transport vehicles," *Building and Environment*, 94: 665-675.
194. Chen, C., Liu, W., Lin, C.-H., and Chen, Q. 2015. "Comparing the Markov chain model with the Eulerian and Lagrangian models for indoor transient particle transport simulation." *Aerosol Science & Technology*, 49: 857-871.
193. Lai, D., Karava, P., and Chen, Q. 2015. "Study of outdoor ozone penetration into buildings through ventilation and infiltration," *Building and Environment*, 93: 112-118.
192. Liu, W., Duan, R., Chen, C., Lin, C.-H., and Chen, Q. 2015. "Inverse design of the thermal environment in and airliner cabin by use of the CFD-based adjoint method," *Energy and Buildings*, 104: 147-155.
191. Wang, H., Karava, P., and Chen, Q. 2015. "Development of simple semi-empirical models for calculating airflow through hopper, awning, and casement windows for single-sided natural ventilation," *Energy and Buildings*, 96: 373-384.
190. Chen, C., Liu, W., Lin, C.-H., and Chen, Q. 2015. "A Markov chain model for predicting transient particle transport in enclosed environments," *Building and Environment*, 90: 30-36.
189. Chen, C., Liu, W., Lin, C.-H., and Chen, Q. 2015. "Accelerating the Lagrangian method for modeling transient particle transport in indoor environments." *Aerosol Science & Technology*, 49(5): 351-361.
188. Liu, W., Zhang, T., Xue, Y., Zhai, Z.J., Wang, J., Wei, Y., and Chen, Q. 2015. "State-of-the-art methods for inverse design of an enclosed environment," *Building and Environment*, 91: 91-100.
187. Huang, Y., Li, J., Li, B., Duan, R., Lin, C.-H., Liu, J., Shen, X., and Chen, Q. 2015. "A method to optimize sampling locations for measuring indoor air distributions," *Atmospheric Environment*, 102: 355-365.
186. Rai, A.C., Lin, C.-H., and Chen, Q. 2015. "Numerical modeling of particle generation from ozone reactions with human-worn clothing in indoor environments," *Atmospheric Environment*, 102, 145-155.
185. Jin, M., Liu, W. and Chen, Q. 2015. "Simulating buoyancy-driven airflow in buildings by coarse-grid fast fluid dynamics," *Building and Environment*, 85: 144-152.
184. Duan, R., Liu, W., Xu, L., Huang, Y., Shen, X., Lin, C.-H., Liu, J., Chen, Q., and Sasanapuri, B. 2015. "Mesh type and number for CFD simulations of air distribution in an aircraft cabin," *Numerical Heat Transfer, Part B: Fundamentals*, 67(6): 489-506.
183. Liu, W. and Chen, Q. 2015. "Optimal air distribution design in enclosed spaces using an adjoint method," *Inverse Problems in Science and Engineering*, 23(5): 760-779.
182. Jin, M. and Chen, Q. 2015. "Improvement of fast fluid dynamics with a conservative semi-Lagrangian scheme," *International Journal of Numerical Methods for Heat and Fluid Flow*, 25(1): 2-18.
181. Jin, M. and Chen, Q. 2014. "Accelerating fast fluid dynamics with a coarse-grid projection scheme," *HVAC&R Research*, 20(8): 932-943.
180. Rai, A.C., Lin, C.-H., and Chen, Q. 2014. "Numerical modeling of VOC emissions from ozone reactions with human-worn clothing in an aircraft cabin," *HVAC&R Research*, 20(8): 922-931.
179. Chen, C., Lin, C.-H., Jiang, Z., and Chen, Q. 2014. "Simplified models for exhaled airflow from a cough with the mouth covered," *Indoor Air*, 24(6): 580-591.
178. Mazumdar, S., Long, Z., and Chen, Q. 2014. "A coupled CFD and analytical model to simulate airborne contaminant transmission in cabins" *Indoor and Built Environment*, 23: 946-954.

177. Chao, J., Mu, X., Xue, Y., Li, F., Li, W., Lin, C.-H., Pei, J., and Chen, Q. 2014. "A modified tracer-gas-concentration decay method for ventilation rate measurements in large, long, and narrow spaces," *Indoor and Built Environment*, 23: 1012-1020.
176. Zhai, Z., Xue, Y., and Chen, Q. 2014. "Inverse design methods for indoor ventilation systems using CFD-based multi-objective genetic algorithm," *Building Simulation*, 7(6), 661-669.
175. Wang, H. and Chen, Q. 2014. "Impact of climate change on heating and cooling energy use in buildings in the United States," *Energy and Buildings*, 82: 428-436.
174. Zhou, C., Wang, Z., Chen, Q., and Jiang, Y. 2014. "Design optimization and field demonstration of natural ventilation for high-rise residential buildings," *Energy and Buildings*, 82: 457-465.
173. Xue, Y. and Chen, Q. 2014. "Influence of floor plenum on energy performance of buildings with UFAD systems," *Energy and Buildings*, 79: 74-83.
172. Chen, Y., Liu, J., Pei, J., Cao, X., Chen, Q., and Jiang, Y. 2014. "Experimental and simulation study on the performance of daylighting in an industrial building and its energy saving potential," *Energy and Buildings*, 73: 184-191.
171. Lai, D., Guo, D., Hou, Y., Lin, C., and Chen, Q. 2014. "Studies of outdoor thermal comfort in northern China," *Building and Environment*, 77: 110-118.
170. Feng, Z., Long, Z., and Chen, Q. 2014. "Assessment of various CFD models for predicting airflow and pressure drop through pleated filter system," *Building and Environment*, 75: 132-141.
169. Feng, Z., Long, Z., and Chen, Q. 2014. "Voltage-current characteristics of needle-plate system with different media on the collection plate," *Journal of Electrostatics*, 72: 129-135.
168. Li, F., Liu, J., Pei, J., Lin, C.-H., and Chen, Q. 2014. "Experimental study of gaseous and particulate contaminants distribution in an aircraft cabin," *Atmospheric Environment*, 85: 223-233.
167. Chen, C., Zhu, J., Qu, Z., Lin, C.-H., Jiang, Z., and Chen, Q. 2014. "Systematic study of person-to-person contaminant transport in mechanically ventilated spaces (RP-1458)," *HVAC&R Research*, 20: 80-91.
166. Rai, A.C., Guo, B., Lin, C.-H., Zhang, J., Pei, J., and Chen, Q. 2014. "Ozone reaction with clothing and its initiated VOC emissions in an environmental chamber," *Indoor Air*, 24: 49-58.
165. Chen, C., Lin, C.-H., Long, Z., and Chen, Q. 2014. "Predicting transient particle transport in enclosed environments with the combined CFD and Markov chain method," *Indoor Air*, 24: 81-92.
164. Cao, X., Liu, J., Jiang, N., and Chen, Q. 2014. "Particle image velocimetry measurement of indoor airflow field: A review of the technologies and applications," *Energy and Buildings*, 69: 367-380.
163. Lai, D., Zhou, C., Huang, J., Jiang, Y., Long, Z., and Chen, Q. 2014. "Outdoor space quality: a field study in an urban residential community in central China," *Energy and Buildings*, 68(B): 713-720.
162. Liu, W. and Chen, Q. 2013. "Current studies on air distributions in commercial airliner cabins," *Theoretical & Applied Mechanics Letters*, 3(6): 1-5.
161. Xu, B., Liu, J., Ren, S., Yin, W., and Chen, Q. 2013. "Investigation on the performance of airliner cabin air filter throughout the lifetime usage," *Aerosol and Air Quality Research*, 13: 1544-1551.
160. Wang, H. and Chen, Q. 2013. "A semi-empirical model for studying the impact of thermal mass and cost-return analysis on mixed-mode ventilation in office buildings," *Energy and Buildings*, 67: 267-274.
159. Rai, A.C., Guo, B., Lin, C.-H., Zhang, J., Pei, J., and Chen, Q. 2013. "Ozone reaction with clothing and its initiated particle generation in an environmental chamber," *Atmospheric Environment*, 77: 885-892.
158. Liu, W., Wen, J., Lin, C.-H., Liu, J., Long, Z., and Chen, Q. 2013. "Evaluation of various categories of turbulence models for predicting air distribution in an airliner cabin," *Building and Environment*, 65: 118-131.
157. Xue, Y., Zhai, Z., and Chen, Q. 2013. "Inverse prediction and optimization of flow control conditions for confined spaces using a CFD-based genetic algorithm," *Building and Environment*, 64: 77-84.
156. Jin, M., Zuo, W., and Chen, Q. 2013. "Simulating natural ventilation in and around buildings by fast fluid dynamics," *Numerical Heat Transfer, Part A: Applications*, 64(4): 273-289.
155. Chen, C., Liu, W., Li, F., Lin, C.-H., Liu, J., Pei, J., and Chen, Q. 2013. "A hybrid model for investigating transient particle transport in enclosed environments," *Building and Environment*, 62: 45-54.
154. Wang, H. and Chen, Q. 2012. "A new empirical model for predicting single-sided, wind-driven natural ventilation in buildings," *Energy and Buildings*, 54: 386-394.
153. Liu, W., Long, Z., and Chen, Q. 2012. "A procedure for predicting pressure loss coefficients of duct fittings using CFD (RP-1493)," *HVAC&R Research*, 18(6): 1168-1181.
152. Jin, M., Zuo, W., and Chen, Q. 2012. "Improvements of fast fluid dynamics for simulating airflow in buildings," *Numerical Heat Transfer, Part B: Fundamentals*, 62(6): 419-438.

151. Xue, G., Lee, K.S., Jiang, Z., and Chen, Q. 2012. "Thermal environment in indoor spaces with under-floor air distribution systems: 2. Determination of design parameters (1522-RP)," *HVAC&R Research*, 18(6): 1192–1201.
150. Lee, K.S., Xue, G., Jiang, Z., and Chen, Q. 2012. "Thermal environment in indoor spaces with under-floor air distribution systems: 1. Impact of design parameters (1522-RP)," *HVAC&R Research*, 18(6), 1182–1191.
149. Jin, M., Memarzadeh, F., Lee, K.S., and Chen, Q. 2012 "Experimental study of ventilation performance in laboratories with chemical spills," *Building and Environment*, 57: 327-335.
148. Gupta, J.K., Lin, C.-H., and Chen, Q. 2012. "Risk assessment for airborne infectious diseases in aircraft cabins," *Indoor Air*, 22(5): 388-395.
147. Liu, W., Wen, J., Chao, J., Yin, W., Shen, C., Lai, D., Lin, C.-H., Liu, J., Sun, H., and Chen, Q. 2012 "Accurate and high-resolution boundary conditions and flow fields in the first-class cabin of an MD-82 commercial airliner," *Atmospheric Environment*, 56,: 33-44.
146. Zuo, W., Jin, M., and Chen, Q. 2012. "Reduction of numerical diffusion in the FFD model," *Engineering Applications of Computational Fluid Mechanics*, 6(2): 234–247.
145. Rai, A.C. and Chen, Q. 2012. "Simulations of ozone distributions in an aircraft cabin using computational fluid dynamics," *Atmospheric Environment*, 54: 348-357.
144. Wang, M., Lin, C.-H., and Chen, Q. 2012. "Advanced turbulence models for predicting particle transport in enclosed environment," *Building and Environment*, 47: 40-49.
143. Liu, W. Mazumdar, S., Zhang, Z., Poussou, S.B., Liu, J., Lin, C.-H., Chen, Q. 2012. "State-of-the-art methods for studying air distributions in commercial airliner cabins," *Building and Environment*, 47: 5-12.
142. Mazumdar, S., Poussou, S., Lin, C.-H., Isukapalli, S.S., Plesniak, M.W., and Chen, Q. 2011. "The impact of scaling and body movement on contaminant transport in airliner cabins," *Atmospheric Environment*, 45(33): 6019-6028.
141. Wang, M., Lin, C.-H., and Chen, Q. 2011. "Determination of particle deposition in enclosed spaces by detached eddy simulation with the Lagrangian method," *Atmospheric Environment*, 45(30): 5376-5384.
140. Gupta, J.K., Lin, C.-H., and Chen, Q. 2011. "Inhalation of expiratory droplets in aircraft cabins," *Indoor Air*, 21(4): 341-350.
139. Gupta, J., Lin, C.-H., and Chen, Q. 2011. "Transport of expiratory droplets in an aircraft cabin," *Indoor Air*, 21(1): 3-11.
138. Yin, Y., Gupta, J. K., Zhang, X., Liu, J., and Chen, Q. 2011. "Distributions of respiratory contaminants from a patient with different postures and exhaling modes in a single-bed inpatient room," *Buildings and Environment*, 46(1): 75-81.
137. Zuo, W. and Chen, Q. 2010. "Simulations of air distribution in buildings by FFD on GPU," *HVAC&R Research*, 16(6): 785-798.
136. Wang, L., Dols, W.S., and Chen, Q. 2010. "Using CFD capabilities of CONTAM 3.0 for simulating airflow and contaminant transport in and around buildings," *HVAC&R Research*, 16(6): 749-763.
135. Wang, M. and Chen, Q. 2010. "On a hybrid RANS/LES approach for indoor airflow modeling," *HVAC&R Research*, 16(6): 731-747.
134. Zuo, W., Hu, J., and Chen, Q. 2010 "Improvements on FFD modeling by using different numerical schemes," *Numerical Heat Transfer, Part B: Fundamentals*, 58(1): 1-16.
133. Wei, J., Zhao, J., and Chen, Q. 2010. "Optimal design for a dual-airflow window for different climate regions in China," *Energy and Buildings*, 42: 2200-2205.
132. Mazumdar, S., Yin, Y., Guity, A., Marmion, P., Gulick, B., Chen, Q. 2010. "Impact of moving objects on contaminant concentration distributions in an inpatient room with displacement ventilation," *HVAC&R Research*, 16(5): 545-564.
131. Poussou, S., Mazumdar, S., Plesniak, M.W., Sojka, P. and Chen, Q. 2010. "Flow and contaminant transport in an airliner cabin induced by a moving body: Scale model experiments and CFD predictions," *Atmospheric Environment*, 44(24): 2830-2839.
130. Chen, X. and Chen, Q. 2010. "Comparison of different decontaminant delivery methods for sterilizing unoccupied commercial airliner cabins," *Building and Environment*, 45(9): 2027-2034.
129. Gupta, J.K., Lin, C.-H., and Chen, Q. 2010. "Characterizing exhaled airflow from breathing and talking," *Indoor Air*, 20: 31-39.
128. Zuo, W. and Chen, Q. 2010. "Fast and informative flow simulations in a building by using fast fluid dynamics model on graphics processing unit," *Building and Environment*, 45(3): 747-757.

127. Chen, Q., Lee, K., Mazumdar, S., Poussou, S., Wang, L., Wang, M., and Zhang, Z. 2010. "Ventilation performance prediction for buildings: Model assessment," *Building and Environment*, 45(2): 295-303.
126. Fuliotto, R., Cambuli, F., Mandas, N., Bacchin, N., Manara, G., and Chen, Q. 2010. "Experimental and numerical analysis of heat transfer and airflow on an interactive building façade," *Energy and Buildings*, 42(1): 23-28.
125. Wei, J., Zhao, J., and Chen, Q. 2010. "Energy performance of a dual airflow window under different climates," *Energy and Buildings*, 42(1): 111-122.
124. Yin, Y., Xu, W., Gupta, J.K., Guity, A., Marmion, P., Manning, A., Gulick, R.W., Zhang, X., and Chen, Q. 2009. "Experimental study on displacement and mixing ventilation systems for a patient ward," *HVAC&R Research*, 15(6): 1175-1191.
123. Wang, M. and Chen, Q. 2009. "Assessment of various turbulence models for transitional flows in enclosed environment," *HVAC&R Research*, 15(6): 1099-1119.
122. Gupta, J.K., Lin, C.-H., and Chen, Q. 2009. "Flow dynamics and characterization of a cough," *Indoor Air*, 19: 517-525.
121. Lee, K.S., Jiang, Z., and Chen, Q. 2009. "Air distribution effectiveness with stratified air distribution systems," *ASHRAE Transactions*, 115(2).
120. Lee, K.S., Zhang, T., Jiang, Z., and Chen, Q. 2009. "Comparison of airflow and contaminant distributions in rooms with traditional displacement ventilation and under-floor air distribution systems," *ASHRAE Transactions*, 115(2).
119. Zhang, T., Lee, K.S., and Chen, Q. 2009. "A simplified approach to describe complex diffusers in displacement ventilation for CFD simulations," *Indoor Air*, 19(3): 255-267.
118. Yin, Y., Zhang, X., and Chen, Q. 2009. "Condensation risk in a room with high latent load and chilled ceiling panel and with air supplied from liquid desiccant system," *HVAC&R Research*, 15(2): 315-327.
117. Zhang, Z. and Chen, Q. 2009. "Prediction of particle deposition onto indoor surfaces by CFD with a modified Lagrangian method," *Atmospheric Environment*, 43(2): 319-328.
116. Chen, Q. 2009. "Ventilation performance prediction for buildings: A method overview and recent applications," *Building and Environment*, 44(4): 848-858.
115. Zuo, W. and Chen, Q. 2009. "Real time or faster-than-real-time simulation of airflow in buildings," *Indoor Air*, 19(1): 33-44.
114. Mazumdar, S. and Chen, Q. 2009. "A one-dimensional analytical model for airborne contaminant transport in airliner cabins," *Indoor Air*, 19(1): 3-13.
113. Zhang, Z., Chen, X., Mazumdar, S., Zhang, T., and Chen, Q. 2009. "Experimental and numerical investigation of airflow and contaminant transport in an airliner cabin mockup," *Building and Environment*, 44(1): 85-94.
112. Wang, L. and Chen, Q. 2008 "Applications of a coupled multizone and CFD model to calculate airflow and contaminant dispersion in built environment for emergency management," *HVAC&R Research*, 14(6), 925-939.
111. Wang, L. and Chen, Q. 2008. "Evaluation of some assumptions used in multizone airflow network models," *Building and Environment*, 43(10): 1671-1677.
110. Gosselin, J.R. and Chen, Q. 2008. "A dual airflow window for indoor air quality improvement and energy conservation in buildings," *HVAC&R Research*, 14(3): 359-372.
109. Mazumdar, S. and Chen, Q. 2008. "Influence of cabin conditions on placement and response of contaminant detection sensors in a commercial aircraft," *Journal of Environmental Monitoring*, 10: 71-81.
108. Gosselin, J.R. and Chen, Q. 2008. "A computational method for calculating heat transfer and airflow through a dual airflow window," *Energy and Buildings*, 40(4): 452-458.
107. Zhang, T. and Chen, Q. 2007. "Identification of contaminant sources in enclosed spaces by a single sensor," *Indoor Air*, 17(6): 439-449.
106. Zhang, Z., Zhang, W., Zhai, Z., and Chen, Q. 2007. "Evaluation of various turbulence models in predicting airflow and turbulence in enclosed environments by CFD: part-2: comparison with experimental data from literature," *HVAC&R Research*, 13(6): 871-886.
105. Zhai, Z., Zhang Z., Zhang, W., and Chen, Q. 2007. "Evaluation of various turbulence models in predicting airflow and turbulence in enclosed environments by CFD: part-1: summary of prevalent turbulence models," *HVAC&R Research*, 13(6): 853-870.
104. Zhang, T., Chen, Q., and Lin, C.-H. 2007. "Optimal sensor placement for airborne contaminant detection in an aircraft cabin," *HVAC&R Research*, 13(5): 683-696.

103. Wang, L. and Chen, Q. 2007. "Theoretical and numerical studies of coupling multizone and CFD models for building air distribution simulations," *Indoor Air*, 17: 348-361.
102. Zhang, Z. and Chen, Q. 2007. "Comparison of the Eulerian and Lagrangian methods for predicting particle transport in enclosed spaces," *Atmospheric Environment*, 41(25): 5236-5248.
101. Chen, Q., Zhai, Z., and Wang, L. 2007. "Computer modeling of multiscale fluid flow and heat and mass transfer in engineered spaces," *Chemical Engineering Science*, 62: 3580-3588.
100. Zhang, T. and Chen, Q. 2007. "Identification of contaminant sources in enclosed environments by inverse CFD modeling," *Indoor Air*, 17(3): 167-177.
99. Wang, L. and Chen, Q. 2007. "Validation of a coupled multizone and CFD program for building airflow and contaminant transport simulations," *HVAC&R Research*, 13(2): 267-281.
98. Lau, J. and Chen, Q. 2007. "Floor-supply displacement ventilation for workshops," *Building and Environment*, 42(4): 1718-1730.
97. Zhang, T. and Chen, Q. 2007. "Novel air distribution systems for commercial aircraft cabins," *Building and Environment*, 42(4): 1675-1684.
96. Chen, Q., Glicksman, L., Lin, J., and Scott, A. 2007. "Sustainable urban housing in China," *Journal of Harbin Institute of Technology (New Series)*, 14s, 6-9.
95. Lau, J. and Chen, Q. 2006. "Energy analysis for workshops with floor-supply displacement ventilation under U.S. climates," *Energy and Buildings*, 38(10): 1212-1219.
94. Zhai, Z. and Chen, Q. 2006. "Sensitivity analysis and application guides for integrated building energy and CFD Simulation," *Energy and Buildings*, 38(9): 1060-1068.
93. Zhang, Z. and Chen, Q. 2006. "Experimental measurements and numerical simulations of particle transport and distribution in ventilated rooms," *Atmospheric Environment*, 40(18): 3396-3408.
92. Chen, Q. and Zhang, Z. 2005. "Prediction of particle transport in enclosed environment," *China Particuology*, 3(6): 364-372.
91. Béghein, C., Jiang, Y., and Chen, Q. 2005. "Using large eddy simulation to study particle motions in a room," *Indoor Air*, 15: 281-290.
90. Zhai, Z. and Chen, Q. 2005. "Performance of coupled building energy and CFD simulations," *Energy and Buildings*, 37(4): 333-344.
89. Chen, Q. 2004. "Using computational tools to factor wind into architectural environment design," *Energy and Buildings*, 36, 1197-1209.
88. Zhai, Z. and Chen, Q. 2004. "Numerical determination and treatment of convective heat transfer coefficient in the coupled building energy and CFD simulation," *Building and Environment*, 36(8): 1000-1009.
87. Griffith, B. and Chen, Q. 2004. "Framework for coupling room air models to heat balance model load and energy calculations," *HVAC&R Research*, 10(2): 91-111.
86. Jiang, Y., Allocca, C., and Chen, Q. 2004. "Validation of CFD simulations for natural ventilation," *International Journal of Ventilation*, 2(4): 359-370.
85. Huang, J.M., Chen, Q., Ribot, B., and Rivoalen, H. 2004. "Modeling contaminant exposure in a single-family house," *Indoor and Built Environment*, 13(1): 5-19.
84. Zhai, Z., Srebric, J., and Chen, Q. 2003. "Application of CFD to predict and control chemical and biological agent dispersion in buildings," *International Journal of Ventilation*, 2(3): 251-264.
83. Jiang, Y., Su., M., and Chen, Q. 2003. "Using large eddy simulation to study airflows in and around buildings," *ASHRAE Transactions*, 109(2): 517-526.
82. Kobayashi, N. and Chen, Q. 2003. "Floor-supply displacement ventilation in a small office," *Indoor and Built Environment*, 12(4): 281-292.
81. Holmberg, S. and Chen, Q. 2003. "Air flow and particle control with different ventilation systems in a classroom," *Indoor Air*, 13: 200-204.
80. Griffith, B. and Chen, Q. 2003. "A momentum-zonal model for predicting zone airflow and temperature distributions to enhance building load and energy simulations," *HVAC&R Research*, 9(3): 309-325.
79. Allocca, C., Chen, Q., and Glicksman, L.R. 2003. "Design analysis of single-sided natural ventilation," *Energy and Buildings*, 35(8): 785-795.
78. Olsen, E.L. and Chen, Q. 2003. "Energy consumption and comfort analysis for different low-energy cooling systems in a mild climate," *Energy and Buildings*, 35(6): 560-571.
77. Zhai, Z. and Chen, Q. 2003. "Solution characters of iterative coupling between energy simulation and CFD programs," *Energy and Buildings*, 35(5): 493-505.
76. Jiang, Y. and Chen, Q. 2003. "Buoyancy-driven single-sided natural ventilation in buildings with large

- openings,” *International Journal of Heat and Mass Transfer*, 46(6): 973-988.
75. Zhang, J., Zhang, J.S., and Chen, Q. 2003. “Effects of environmental conditions on the VOC sorption by building materials – part II: model evaluations (RP-1097),” *ASHRAE Transactions*, 109(1): 167-178.
 74. Jiang, Y., Alexander, D., Jenkins, H., Arthur, R., Chen, Q. 2003. “Natural ventilation in buildings: measurement in a wind tunnel and numerical simulation with large eddy simulation,” *Journal of Wind Engineering and Industrial Aerodynamics*, 91(3): 331-353.
 73. Karola, A., Lahtela, H., Hänninen, R., Hitchcock, R., Chen, Q., Dajka, S., and Hagström, K. 2002. “BSPRO COM-Server – interoperability between software tools using industrial foundation classes,” *Energy and Building*, 34: 901-907.
 72. Zhang, J., Zhang, J.S., and Chen, Q. 2002. “Effects of environmental conditions on the VOC sorption by building materials – part I: experimental results (RP-1097),” *ASHRAE Transactions*, 108(2): 273-282.
 71. Srebric, J. and Chen, Q. 2002. “An example of verification, validation, and reporting of indoor environment CFD analyses,” *ASHRAE Transactions*, 108(2): 185-194.
 70. Zhai, Z., Chen, Q., Haves, P. and Klems, J.H. 2002. “On approaches to couple energy simulation and computational fluid dynamics programs,” *Building and Environment*, 37: 857-864.
 69. Srebric, J. and Chen, Q. 2002. “Simplified numerical models for complex air supply diffusers,” *HVAC&R Research*, 8(3): 277-294.
 68. Chen, Q. and Srebric, J. 2002. “A procedure for verification, validation, and reporting of indoor environment CFD analyses,” *HVAC&R Research*, 8(2): 201-216.
 67. Jiang, Y. and Chen, Q. 2002. “Effect of fluctuating wind direction on cross natural ventilation in building from large eddy simulation,” *Building and Environment*, 37(4): 379-386.
 66. Demokritou, P., Yang, C., Chen, Q., and Spengler, J.D. 2002. “An experimental method for contaminant dispersal characterization in large industrial buildings for indoor air quality (IAQ) applications,” *Building and Environment*, 37(3): 305-312.
 65. Zhang, J.S., Zhang, J.S., Chen, Q., and Yang, X. 2002. “A critical review on studies of volatile organic compound (VOC) sorption on building materials,” *ASHRAE Transactions*, 108(1): 162-174.
 64. Zhai, Z., Chen, Q., Scanlon, P.W. 2002. “Design of ventilation system for an indoor auto racing complex,” *ASHRAE Transactions*, 108(1): 989-998.
 63. Carrilho-da-Graça, G, Chen, Q., Glicksman, L.R., and Norford, L.K. 2002. “Simulation of wind driven ventilative cooling systems for an apartment building in Beijing and Shanghai,” *Energy and Buildings*, 34(1): 1-11.
 62. Yang, X., Chen, Q. Zeng, J., Zhang, J.S., and Shaw, C.Y. 2001. “Effects of environmental and test conditions on VOC emissions from “wet” coating materials,” *Indoor Air*, 11(4): 270-278.
 61. Yang, X. and Chen, Q. 2001. “A coupled airflow and source/sink model for simulating indoor VOC exposures” *Indoor Air*, 11(4): 257-269.
 60. Yang, X., Chen, Q., Zhang, J.S, Magee, R., Zeng, J., and Shaw, C.Y. 2001. “Numerical simulation of VOC emissions from dry materials,” *Building and Environment*, 36(10): 1099-1107.
 59. Jiang, Y. and Chen, Q. 2001. “Study of natural ventilation in buildings by large eddy simulation,” *Journal of Wind Engineering and Industrial Aerodynamics*, 89(13): 1155-1178.
 58. Su, M., Chen, Q., and Chiang, C.-M. 2001. “Comparison of different subgrid-scale models of large eddy simulation for indoor airflow modeling,” *Journal of Fluids Engineering*, 123: 628-639.
 57. Tantasavasdi, C., Srebric, J., and Chen, Q. 2001. “Natural ventilation design for houses in Thailand,” *Energy and Buildings*, 33(8): 815-824.
 56. Srebric, J. and Chen, Q. 2001. “A method of test to obtain diffuser data for CFD modeling of room airflow,” *ASHRAE Transactions*: 107(2), 108-116.
 55. Yang, C., Demokritou, P., Chen Q., and Spengler, J. 2001. “Experimental validation of a computational fluid dynamics model for IAQ applications in ice rink arenas,” *Indoor Air*, 11(2): 120-126.
 54. Xu, W. and Chen, Q. 2001. “A two-layer model for simulating indoor airflow, part I: model development.” *Energy and Buildings*, 33(6): 629-641.
 53. Xu, W. and Chen, Q. 2001. “A two-layer model for simulating indoor airflow, part II: applications.” *Energy and Buildings*, 33(6): 615-627.
 52. Yang, X., Chen, Q., Zeng, J., Zhang, J.S., Nong, G., and Shaw, C.Y. 2001. “Effects of airflow on VOC emissions from ‘wet’ coating materials: experimental measurements and numerical simulation,” *ASHRAE Transactions*, 107(1): 801-811.
 51. Yang, X., Chen, Q., Zeng, J., Zhang, J.S., and Shaw, C.Y. 2001. “A mass transfer model for simulating

- VOC sorption on building materials,” *Atmospheric Environment*, 35(7): 1291-1299.
50. Yang, X., Chen, Q., Zeng, J., Zhang, J.S., and Shaw, C.Y. 2001. “A mass transfer model for simulating volatile organic compound emissions from ‘wet’ coating materials applied to absorptive substrates,” *International Journal of Heat and Mass Transfer*, 44(9): 1803-1815.
 49. Broderick, C.R. and Chen, Q. 2000. “A simple interface to computational fluid dynamics programs for building environment simulations,” *Indoor + Built Environment*, 9: 317-324.
 48. Spengler, J.D. and Chen, Q. 2000. “Indoor air quality factors in designing a healthy building,” *Annual Review of Energy and the Environment*, 25: 567-600.
 47. Xu, W. and Chen, Q. 2000. “Simulation of mixed convection flow in a room with a two-layer turbulence model”, *Indoor Air*, 10: 306-314.
 46. Yang, C., Demokritou, P., Chen, Q., Spengler, J.D., and Parsons, A. 2000. “Ventilation and air quality in indoor ice skating arenas,” *ASHRAE Transactions*, 106(2): 338-346.
 45. Zhang, W. and Chen, Q. 2000. “Large eddy simulation of natural and mixed convection airflow indoors with two simple filtered dynamic subgrid scale models.” *Numerical Heat Transfer, Part A: Applications*, 37(5): 447-463.
 44. Zhang, W. and Chen, Q. 2000. “Large eddy simulation of indoor airflow with a filtered dynamic subgrid scale model,” *International Journal of Heat and Mass Transfer*, 43(17): 3219-3231.
 43. Chen, Q. and Srebric, J. 2000. “Application of CFD tools for indoor and outdoor environment design,” Invited paper, *International Journal on Architectural Science*, 1(1): 14-29.
 42. Srebric, J., Chen, Q., and Glicksman, L.R. 2000. “A coupled airflow-and-energy simulation program for indoor thermal environment studies,” *ASHRAE Transactions*, 106(1): 465-476.
 41. Srebric, J., Chen, Q., and Glicksman, L.R. 1999. “Validation of a zero-equation turbulence model for complex indoor airflows,” *ASHRAE Transactions*, 105(2): 414-427.
 40. Hu, S. Chen, Q., and Glicksman, L.R. 1999. “Comparison of energy consumption between displacement and mixing ventilation systems for different U.S. buildings and climates,” *ASHRAE Transactions*, 105(2): 453-464.
 39. Yuan, X., Chen, Q., and Glicksman, L.R. 1999. “Performance evaluation and design guidelines for displacement ventilation,” *ASHRAE Transactions*, 105(1): 298-309. Also translated to Japanese in SHASE (The Society of Heating, Air-conditioning and Sanitary Engineers of Japan) 74(6): 49-57, 2000.
 38. Yuan, X., Chen, Q., and Glicksman, L.R. 1999. “Models for prediction of temperature difference and ventilation effectiveness with displacement ventilation,” *ASHRAE Transactions*, 105(1): 353-367.
 37. Yuan, X., Chen, Q., Glicksman, L.R., Hu, Y., and X. Yang. 1999. “Measurements and computations of room airflow with displacement ventilation,” *ASHRAE Transactions*, 105(1): 340-352.
 36. Yang, X., Chen, Q., and Zhang, J. 1998. “Impact of early stage incomplete mixing on estimating VOC emissions in small test chambers,” *Indoor Air*, 8: 180-189.
 35. Xu, W., Chen, Q., and Nieuwstadt, F.T.M. 1998. “A new turbulence model for near-wall natural convection,” *International Journal of Heat and Mass Transfer*, 41: 3161-3176.
 34. Yang, X., Chen, Q., and Bluysen, P.M. 1998. “Prediction of short-term and long-term volatile organic compound emissions from SBR bitumen-backed carpet under different temperatures,” *ASHRAE Transactions*, 104(2): 1297-1308.
 33. Chen, Q. and Xu, W. 1998. “A zero-equation turbulence model for indoor airflow simulation,” *Energy and Buildings*, 28(2): 137-144.
 32. He, W. and Chen, Q. 1998. “Three-dimensional simulation of a molten carbonate fuel cell stack under transient conditions,” *Journal of Power Sources*, 73: 182-192.
 31. Yuan, X., Chen, Q., and Glicksman, L.R. 1998. “A critical review on displacement ventilation,” *ASHRAE Transactions*, 104(1A): 78-90.
 30. Xu, W. and Chen, Q. 1998. “Numerical simulation of air flow in a room with differentially heated vertical walls,” *ASHRAE Transactions*, 104(1A): 168-175.
 29. Chen, Q. 1997. “Controlling urban climate: using a computational method to study and improve indoor environments,” *Journal of Urban Technology*, 4(2): 69-83.
 28. Chen, Q. and Chao, N.-T. 1997. “Comparing turbulence models for buoyant plume and displacement ventilation simulation,” *Indoor + Built Environment*, 6: 140-149.
 27. Jiang, Z., Haghighat, F., and Chen, Q. 1997. “Ventilation performance and indoor air quality in workstations under different supply air systems: a numerical approach”, *Indoor + Built Environment*, 6: 160-167.
 26. Chen, Q. 1997. “Computational fluid dynamics for HVAC: successes and failures,” *ASHRAE*

- Transactions*, 103(1): 178-187.
25. Chen, Q. 1996. "Prediction of room air motion by Reynolds-stress models," *Building and Environment*, 31(3): 233-244.
 24. Chen, Q. 1995. "Comparison of different k- ϵ models for indoor airflow computations," *Numerical Heat Transfer, Part B: Fundamentals*, 28: 353-369.
 23. Chen, Q., Peng, X., and Paassen, A.H.C. van. 1995. "Prediction of room thermal response by CFD technique with conjugate heat transfer and radiation models," *ASHRAE Transactions*, 101(2): 50-60.
 22. Jiang, Z., Chen, Q., and Haghghat, F. 1995. "Airflow and air quality in a large enclosure," *ASME Journal of Solar Energy Engineering*, 117: 114-122.
 21. He, W. and Chen, Q. 1995, "Three-dimensional simulation of a molten carbonate fuel cell stack using computational fluid dynamics technique," *Journal of Power Sources*, 55: 25-32.
 20. Chen, Q. and Jiang, Z. 1993. "Evaluation of air supply method by mathematical simulation in a classroom with a low ventilation rate," *Indoor Environment*, 2(5-6): 360-364.
 19. Chen, Q. and Jiang, Z. 1992. "Air supply method and indoor environment," *Indoor Environment*, 1(2): 88-102.
 18. Chen, Q. and Jiang, Z. 1992. "Significant questions in predicting room air motion", *ASHRAE Transactions*, 98(1): 929-939.
 17. Yuan, X., Chen, Q., Moser, A., and Suter, P. 1992. "Numerical simulation of air flow in gymnasias", *Indoor Environment*, 1(4), 224-233.
 16. Chen, Q., Jiang, Z., and Moser, A. 1992. "Control of airborne particle concentration and draught risk in an operating room," *Indoor Air*, 2: 154-167.
 15. Jiang, Z., Chen, Q., and Moser, A. 1992. "Comparison of displacement and mixing diffusers," *Indoor Air*, 2: 168-179.
 14. Jiang, Z., Chen, Q., and Moser, A. 1992. "Indoor airflow with cooling panel and radiative/convective heat source," *ASHRAE Transactions*, 98(1): 33-42.
 13. Chen, Q., Moser, A., and Suter, P. 1992. "A numerical study of indoor air quality and thermal comfort under six kinds of air diffusion", *ASHRAE Transactions*, 98(1): 203-217.
 12. Chen, Q., Moser, A., and Suter, P. 1991. "Interpolation theory and influence of boundary conditions on room air diffusion," *Building and Environment*, 26(4): 433-445.
 11. Chen, Q., Suter, P., and Moser, A. 1991. "Influence of air supply parameters on indoor air diffusion," *Building and Environment*, 26(4): 417-431.
 10. Chen, Q., Suter, P., and Moser, A. 1991. "A database for assessing indoor airflow, air quality and draft risk," *ASHRAE Transactions*, 97(2): 150-163.
 9. Chen, Q., Moser, A., and Huber, A. 1990. "Prediction of buoyant, turbulent flow by a low-Reynolds-number k- ϵ model," *ASHRAE Transactions*, 96(1): 564-573.
 8. Chen, Q., Hooronstra, T.G., and Kooi, J. van der 1990. "Energy analysis of buildings with different kinds of air supply and air exhaust systems," *ASHRAE Transactions*, 96(1): 344-356.
 7. Chen, Q. 1990. "Comfort and energy consumption analysis in buildings with radiant panels," *Energy and Buildings*, 14(4): 287-297.
 6. Chen, Q. and Kooi, J. van der 1990. "A methodology for indoor airflow computations and energy analysis for a displacement ventilation system," *Energy and Buildings*, 14(4): 259-271.
 5. Chen, Q. 1990. "Construction of a low-Reynolds-number k- ϵ model," *The PHOENICS Journal of Computational Fluid Dynamics and Its Applications*, 3(3): 288-329.
 4. Kooi, J. van der and Chen, Q. 1989. "Berekening van de luchtstroming, de luchtkwaliteit en het energiegebruik van een vertrek," *Klimaatbeheersing* (in Dutch), 18(7): 265-271.
 3. Chen, Q. And Kooi, J. van der 1988. "Indoor airflow, air quality and energy consumption of buildings: new starting points, new opportunities," *Chinese Journal of Refrigeration* (in Chinese), 38(4): 35-43.
 2. Chen, Q. And Kooi, J. van der 1988. "ACCURACY – a computer program for combined problems of energy analysis, indoor airflow and air quality," *ASHRAE Transactions*, 94(2): 196-214.
 1. Chen, Q., Kooi, J. van der and Meyers, A. 1988. "Measurements and computations of ventilation efficiency and temperature efficiency in a ventilated room," *Energy and Buildings*, 12(2): 85-99.

Papers in Book Chapters

6. Chen, Q. 2006. "Chapter 7: Design of natural ventilation with CFD," *Sustainable Urban Housing in China*, Edited by L. Glicksman and J. Lin, Springer, pp.116-123.

5. Chen, Q. 2006. "Chapter 6: Wind in building environment design," Sustainable Urban Housing in China, Edited by L. Glicksman and J. Lin, Springer, pp. 100-115.
4. Chen, Q. and Zhai, Z. 2004. "The use of CFD tools for indoor environmental design", *Advanced Building Simulation*, pp.119-140, Edited by A. Malkawi and G. Augenbroe, Spon Press, New York.
3. Chen, Q. and Glicksman, L. 2000. "Application of computational fluid dynamics for indoor air quality studies," *Indoor Air Quality Handbook*, pp.59.1-59.22, Edited by J.D. Spengler, J.M. Samet, and J.F. McCarthy, McGraw-Hill, Inc.
2. Spengler, J., Chen, Q., and Dilwali, K.M. 2000. "Indoor air quality factors in designing a healthy building," *Indoor Air Quality Handbook*, pp.5.1-5.29, Edited by J.D. Spengler, J.M. Samet, and J.F. McCarthy, McGraw-Hill, Inc.
1. Chen, Q. and Kooi, J. van der 1990. "Transient heat transfer through the enclosures of a room with mixed convection," *Heat and Mass Transfer in Building Materials and Structures*, pp. 697-706, Edited by J.B. Chaddock and B. Todorovic, Hemisphere Publishing Corporation, Washington DC.

Papers in Refereed Conference Proceedings (full-length papers)

208. Liu, S. and Chen, Q. 2019. "A holistic approach to natural ventilation studies," *Journal of Physics: Conference Series, Proceedings of X IAQVEC 2019, the 10th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, 6 pages, Bari, Italy.
207. Cao, Q., Lin, C.-H., Wei, D., and Chen, Q. 2019. "Particle transport in an airliner cabin mockup," 8 pages, *Proceedings of the 16th IBPSA International Conference and Exhibition (Building Simulation 2019)*, 8 pages, Rome, Italy.
206. Liu, S., Pan, W., Zhang, W., Long, Z., and Chen, Q. 2019. "CFD simulations of cross natural ventilation through an apartment with modified inflow boundary conditions," *Proceedings of the 16th IBPSA International Conference and Exhibition (Building Simulation 2019)*, 8 pages, Rome, Italy.
205. Zhao, X. and Chen, Q. 2019. "Inverse design of indoor environment using an adjoint RNG k- ϵ turbulence model," *Proceedings of the 16th IBPSA International Conference and Exhibition (Building Simulation 2019)*, 7 pages, Rome, Italy.
204. Zhang, S. and Chen, Q. 2019. "Particle capture efficiency by the rotating net disk in kitchen exhaust hood," *Proceedings of the 11th International Symposium on Heating, Ventilating, and Air Conditioning (ISHVAC 2019)*, 8 pages, Harbin, China.
203. Wei, G., Lai, D., and Chen, Q. 2019. "Displacement ventilation for machining plants with high oil mist concentration" *Proceedings of the 11th International Symposium on Heating, Ventilating, and Air Conditioning (ISHVAC 2019)*, 8 pages, Harbin, China.
202. Cao, Q., Xu, Q., Lin, C.-H., Wei, D., and Chen, Q. 2019. "Numerical and experimental study of particle deposition on a turbocharger," *Proceedings of the 11th International Symposium on Heating, Ventilating, and Air Conditioning (ISHVAC 2019)*, 8 pages, Harbin, China.
201. Deng, Z. and Chen, Q. 2019. "Impact of occupant behavior on office energy use," *Proceedings of the 13th REHVA World Congress CLIMA 2019*, 7 pages, Bucharest, Romania.
200. Zhao, X. and Chen, Q. 2019 "Optimal design of an indoor environment using an adjoint RNG k- ϵ turbulence model," *Proceedings of the 13th REHVA World Congress CLIMA 2019*, 8 pages, Bucharest, Romania.
199. Zhou, X., Liu, S., Liu, X., Zhang, W., Li, J., Dong, J., Lai, D., and Chen, Q. 2019. "Evaluation of four models for predicting thermal sensation in Chinese residential kitchen," *Proceedings of the 13th REHVA World Congress CLIMA 2019*, 7 pages, Bucharest, Romania.
198. Liu, S., Zhou, X., Liu, X., Zhang, W., Li, J., Dong, J., Lai, D., and Chen, Q. 2019. "Assessment of thermal environment in a kitchen with a new ventilation system," *Proceedings of the 13th REHVA World Congress CLIMA 2019*, 7 pages, Bucharest, Romania.
197. Shi, Z., Anand, V., and Chen, Q. 2018. "Experimental study on the impact of passive chilled beam in a room with displacement ventilation," *Proceedings of the 7th International Building Physics Conference*, Syracuse, NY., USA, pp. 899-904.
196. Deng, Z. and Chen, Q. 2018. "Neural network models using thermal sensations and occupants' behavior for predicting thermal comfort," *Proceedings of the 7th International Building Physics Conference*, Syracuse, NY., USA, pp. 611-616.

195. Cao, Q., Chen, C., Lin, C.-H., Wei, D., and Chen, Q. 2018. "Predict particle deposition around the cabin air supply nozzles of commercial airplanes," *Proceedings of Indoor Air 2018 International Conference*, Philadelphia, PA, USA, Paper 237, 8 pages.
194. You, R., Zhang, Y., Zhao, X., Lin, C.-H., Wei, Z., Liu, J., and Chen, Q. 2018. "Development of a new ventilation system for commercial airplane cabins," *Proceedings of Indoor Air 2018 International Conference*, Philadelphia, PA, USA, Paper 237, 8 pages.
193. Zhou, X., Lai, D., and Chen, Q. 2018. "Experimental investigations of thermal comfort in a passenger car under driving conditions," *Proceedings of Indoor Air 2018 International Conference*, Philadelphia, PA, USA, Paper 245, 8 pages.
192. Liu, S., Pan, W., Zhang, H., Cheng, X., Long, Z., and Chen, Q. 2018. "How many surrounding buildings should be included in simulating wind flow around a building?" *Proceedings of Indoor Air 2018 International Conference*, Philadelphia, PA, USA, Paper 122, 8 pages.
191. Shi, Z. and Chen, Q. 2018. "Thermal comfort analysis in a room with displacement ventilation system coupled with passive chilled beams," *Proceedings of the 24th International Compressor Engineering Conference, the 17th International Refrigeration and Air Conditioning Conference, and the 5th International High Performance Building Conference*, West Lafayette, Indiana, USA. Paper 3119, 10 pages.
190. You, R., Lin, C.-H., Wei, D., and Chen, Q. 2018. "Assessment of a new ventilation system for commercial aircraft cabins using Wells-Riley equation," *Proceedings of Roomvent & Ventilation 2018*, Espoo, Finland, pp. 767-772.
189. Liu, W. and Chen, Q. 2018. "A novel diagnostic technology for air infiltration in buildings using an infrared camera," *Proceedings of Roomvent & Ventilation 2018*, Espoo, Finland, pp. 349-354.
188. Liu, S., Pan, W., Cheng, X., Zhang, H., Long, Z., and Chen, Q. 2018. "CFD simulations of wind flow in an urban area with a full-scale geometrical model," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 63, 6 pages, Melbourne, Australia.
187. Wei, Y., Liu, W., Xue, Y., Zhai, Z., Chen, Q., and Zhang, T. 2018. "Inverse design of enclosed air environment by integrating three methods," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 55, 6 pages, Melbourne, Australia.
186. Liu, W. and Chen, Q. 2018. "Inverse design of indoor environments by a fast fluid dynamics-based adjoint method," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 11, 6 pages, Melbourne, Australia.
185. Cao, Q., Xu, Q., Lin, C.-H., Wei, Z., and Chen, Q. 2018. "Modeling Particle Deposition on a Plate-Fin Heat Exchanger," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 213, 6 pages, Melbourne, Australia.
184. Zhao, X., Liu, W., and Chen, Q. 2018. "Optimal design of indoor environment by the CFD-based adjoint method with an area constrained topology," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 82, 6 pages, Melbourne, Australia.
183. Lai, D., Zhou, X. and Chen, Q. 2018. "Developing A Dynamic Thermal Sensation Model for Outdoor Spaces," *Proceedings of the 4th International Conference on Building Energy and Environment (COBEE 2018)*, Paper No. 33, 6 pages, Melbourne, Australia.
182. Zhao, X., Liu, W., and Chen, Q. 2017. "Inverse design of multi-objective problems for indoor environment using a CFD-based adjoint method," *Proceedings of the 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 1108, 8 pages, Jinan, China.
181. Cao, Q., Xu, Q., Lin, C.-H., Baughcum, S., Norris, S., Wei, D., and Chen, Q. 2017. "Experimental investigation of particle deposition on the complex components of environmental control systems of commercial airliners," *Proceedings of the 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 842, 8 pages, Jinan, China.
180. Lai, D., Zhou, X., and Chen, Q. 2017. "Studies of dynamic human skin temperature in outdoor thermal environments," *Proceedings of the 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 830, 8 pages, Jinan, China.
179. Cheng, X., Zhang, H., Pan, W., Liu, S., Zhang, M., Long, Z., and Zhang, T., and Chen, Q. 2017. "Field study of infiltration rate and its influence on indoor air quality in an apartment," *Proceedings of the 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 1633, 8 pages, Jinan, China.
178. You, R., Chen, J., Lin, C.-H., Wei, D., and Chen, Q. 2017. "Investigating the impact of gaspers on cabin air quality in commercial airliners with a hybrid turbulence model," *Proceedings of the 10th International*

- Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 828, 8 pages, Jinan, China.
177. Liu, W. and Chen, Q. 2017. "Two coarse grid generation methods for the fast fluid dynamics in simulating indoor airflow," *Proceedings of the 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Paper No. 820, 8 pages, Jinan, China.
 176. Lai, D. and Chen, Q. 2016. "A model for calculating heat transfer in human body under transient and non-uniform thermal environment," *Proceedings of the 14th International Conference on Indoor Air Quality and Climate (Indoor Air 2016)*, Paper 359, 8 pages, Ghent, Belgium.
 175. Liu, W., You, R., Xue, Y., and Chen, Q. 2016. "Comparison and integration of CFD-based genetic algorithm and adjoint method for the inverse design of indoor environment," *Proceedings of the 14th International Conference on Indoor Air Quality and Climate (Indoor Air 2016)*, Paper 347, 8 pages, Ghent, Belgium.
 174. You, R., Liu, W., Chen, J., Lin, C.-H., Wei, D., and Chen, Q. 2016. "Modelling air distribution in aircraft cabins with a simplified gasper model," *Proceedings of the 14th International Conference on Indoor Air Quality and Climate (Indoor Air 2016)*, Paper 99, 8 pages, Ghent, Belgium.
 173. Chen, C., Lin, C., Wei, D., and Chen, Q. 2016. "Modeling particle deposition on the surfaces around a diffuser in an indoor space," *Proceedings of the 14th International Conference on Indoor Air Quality and Climate (Indoor Air 2016)*, Paper 89, 8 pages, Ghent, Belgium.
 172. Zheng, C., Chen, Q., Heiselberg, P., Pomianowski, M. 2015. "Airflow pattern and performance analysis of diffuse ceiling ventilation in an office room using CFD study," *Proceedings of the 14th International IBPSA Conference (Building Simulation 2015)*, pp. 925-932, Haderabad, India.
 171. Chen, C., Liu, W., Lin, C.-H., and Chen, Q. 2015. "Accelerating the Lagrangian Method for Modeling Transient Particle Transport in Indoor Environments," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T6-611, 8 pages, Tianjin, China.
 170. Chen, C., Liu, W., Lin, C.-H., and Chen, Q. 2015. "A Markov Chain Model for Predicting Transient Particle Transport in Enclosed Environments," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T6-612, 8 pages, Tianjin, China.
 169. Yin, H., Shen, X., Sasanapuri, B., Liu, W., Zhang, Y., Liu, Y., and Chen, Q. 2015. "Modeling Environmental Control System for Aircraft by Coupling with Thermal Environment in Air Cabin," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T1-1040, 8 pages, Tianjin, China.
 168. Cao, Q., Liu, Y., Liu, W., Lin, C.-H., Baughcum, S., Norris, S., Wei, D., Long, Z., Shen, X., and Chen, Q. 2015. "Experimental study of particle deposition in an air-conditioning cart and the environmental control system of a commercial MD-82 airplane," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T6-987, 9 pages, Tianjin, China.
 167. Liu, Y., Cao, Q., Lin, C.-H., Wei, D., Baughcum, S., Norris, S., Yin, H., Liu, W., Long, Z., Shen, X., Chen, Q. 2015. "Determining particle deposition in the environmental control system of a regional jet by empirical models," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T6-1039, 8 pages, Tianjin, China.
 166. Feng, Z., Long, Z. and Chen, Q. 2015. "Experimental study of a new electrostatic assisted air filtration system," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T6-983, 8 pages, Tianjin, China.
 165. Zhang, Y., Sun, H., Liu, J., and Chen, Q. 2015. "Performance evaluation of different air distributions in a sleeping space of a vehicle," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T5-957, 8 pages, Tianjin, China.
 164. Wang, H. and Chen, Q. 2015. "Influence of global warming on building heating and cooling energy consumption in the United States," *Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Paper No. T8-558, 8 pages, Tianjin, China.

163. Liu, W. and Chen, Q. 2015. "Implementation of a fast fluid dynamics model in OpenFOAM with unstructured mesh," Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE), Paper No. T6-679, 8 pages, Tianjin, China.
162. You, R., Chen, J., Shi, Z., Liu, W., Lin, C.-H., and Chen, Q. 2015. "Experimental and numerical study of gasper-induced airflow in an aircraft cabin mockup," Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE), Paper No. T6-747, 8 pages, Tianjin, China.
161. Shi, Z., Dai, S., Chen, J., and Chen, Q. 2015. "Numerical study of gasper-induced jet flow with detailed gasper geometry," Proceedings of the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE), Paper No. T6-573, 9 pages, Tianjin, China.
160. Lai, D. and Chen, Q. 2015. "An ordered probability model for outdoor thermal comfort," Proceedings of The 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE), Paper No. T5-770, 8 pages, Tianjin, China.
159. Wang, H. and Chen, Q. 2015. "Modeling of the impact of different window types on single-sided natural ventilation," The 6th International Building Physics Conference, *Energy Procedia*, 78: 1549–1555.
158. Duan, R., Liu, W., Huang, Y., Li, J., Li, B., Lin, C.-H., Liu, J., Shen, X., and Chen, Q. 2014. "Comparison of mesh type for CFD simulations of air distributions in aircraft cabins," *Proceedings of the 13th International Conference on Air Distribution in Rooms (ROOMVENT 2014)*, pp. 96-103, Sao Paulo, Brazil.
157. Li, B., Li, J., Huang, Y., Yin, H., Shen, X., Lin, C.-H., Chen, Q., and Liu, J. 2014. "Characteristics of contaminant transport in an aircraft cabin with gaspers on," *Proceedings of the 13th International Conference on Air Distribution in Rooms (ROOMVENT 2014)*, pp. 756-762, Sao Paulo, Brazil.
156. Z. Shi, Chen, J., and Chen, Q. 2014. "Numerical study of flow characteristics and entrainment of stratified jet flows in enclosed environment," *Proceedings of the 13th International Conference on Air Distribution in Rooms (ROOMVENT 2014)*, pp. 622-629, Sao Paulo, Brazil.
155. Liu, W. and Chen, Q. 2014. "Validation of CFD-based adjoint method in inverse identification of air supply location, size, and parameters," *Proceedings of the 13th International Conference on Air Distribution in Rooms (ROOMVENT 2014)*, pp. 479-486, Sao Paulo, Brazil.
154. Flieger, B., Jin, M., Steinhoff, P., Schmidt, M., Müller, D., and Chen, Q. 2014. "Fluidflow simulation for building performance evaluation," *Proceedings of BauSIM 2014 IBPSA Germany Conference*, 8 pages, Aachen, Germany.
153. Chen, B., Schiavon, S., Bauman, F.S., and Chen, Q. 2014. "A comparison between two Underfloor Air Distribution (UFAD) design tools," *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Paper HP0069, 8 pages, Hong Kong.
152. Huang, Y., Li, J., Li, B., Duan, R., Liu, J., Shen, X., and Chen, Q. 2014. "Influence of sampling point distributions on the accuracy of indoor air environment measurements," *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Paper HP0228, 9 pages, Hong Kong.
151. Rai, A.C., Chen, C., Lin, C.-H., and Chen, Q. 2014. "Numerical modeling of ozone-initiated particle generations from reactions with clothing in an environmental chamber," *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Paper HP0108, 8 pages, Hong Kong.
150. Rai, A.C., Lin, C.-H., and Chen, Q. 2014. "Modeling of ozone-initiated VOC emissions from reactions with human-worn clothing in an aircraft cabin," *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Paper HP0107, 8 pages, Hong Kong.
149. Chen, C., Lin, C.-H., and Chen, Q. 2014. "Developing simplified models for the exhaled airflow from a cough with the mouth covered," *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Paper HP0092, 8 pages, Hong Kong.
148. Zuo, W., Wetter, M., Chen, Q., Li, D., Jin, M., and Tian, W. 2014. "Coupled simulation of indoor environment, HVAC and control system by using fast fluid dynamics and the Modelica buildings library," 2014 ASHRAE/IBPSA-USA Building Simulation Conference, 8 pages, Atlanta, GA.

147. Wang, H. and Chen, Q. 2013. "Human-behavior oriented control strategies for natural ventilation in office buildings," *Proceedings of the 13th International IBPSA Conference (Building Simulation 2013)*, Chambéry, France, pp. 1730-1737.
146. Xue, Y. and Chen, Q. 2013. "Impact of heat transfer through floor slab on energy performance of buildings with UFAD system," *Proceedings of the 13th International IBPSA Conference (Building Simulation 2013)*, Chambéry, France, pp. 696-702.
145. Chen, C., Lin, C.-H., and Chen, Q. 2013. "Predicting transient particle transport in enclosed environments based on Markov chain," *Proceedings of the 13th International IBPSA Conference (Building Simulation 2013)*, Chambéry, France, pp. 559-566.
144. Liu, W. and Chen, Q. 2013. "An adjoint method for optimal ventilation design," *Proceedings of the 13th International IBPSA Conference (Building Simulation 2013)*, Chambéry, France, pp. 245-252.
143. Xue, Y., Zhai, Z., and Chen, Q. 2013. "Fundamentals and implementation of coupling CFD with genetic algorithm for indoor environment applications," *Proceedings of CLIMA 2013, the 11th REHVA World Congress and the 8th Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, 10 pages, Prague, Czech.
142. Jin, M., Chen, Q., and Zuo, W. 2013. "Validation of a fast fluid dynamics program for simulating natural ventilation in buildings," *Proceedings of CLIMA 2013, the 11th REHVA World Congress and the 8th Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, 11 pages, Prague, Czech.
141. Wang, H. and Chen, Q. 2013. "A simple model for predicting natural ventilation in buildings," *Proceedings of CLIMA 2013, the 11th REHVA World Congress and the 8th Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, 9 pages, Prague, Czech.
140. Lai, D., Lin, C., and Chen, Q. 2013. "Outdoor thermal comfort study in northern China," *Proceedings of CLIMA 2013, the 11th REHVA World Congress and the 8th Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, 10 pages, Prague, Czech.
139. Jin, M., Zuo, W. and Chen, Q. 2012. "Validation of three dimensional fast fluid dynamics for indoor airflow simulations." *Proceedings of 2nd International Conference on Energy and Environment (COBEE 2012)*, Boulder, CO, pp. 1055-1062.
138. Chao, J., Wu, C., and Chen, Q. 2012 "Evaluation of a multizone airflow network model for calculating contaminant transport in airliner cabins," *Proceedings of 2nd International Conference on Energy and Environment (COBEE 2012)*, Boulder, CO, pp. 626-633.
137. Liu, W., Wen, J., Shen, C., Lin, C.-H., Liu, J., and Chen, Q. 2012. "Experimental investigation of air distributions in the first-class cabin of an MD-82 commercial airliner," *Proceedings of 2nd International Conference on Energy and Environment (COBEE 2012)*, Boulder, CO, pp. 618-625.
136. Lai, D., Zhou, C., Huang, J., Chen, Q., and Jiang, Y. 2012. "Outdoor space quality study in a housing community in subtropical urban areas," *Proceedings of 2nd International Conference on Energy and Environment (COBEE 2012)*, Boulder, CO, pp.462-469.
135. Rai, A.C. and Chen, Q. 2012 "Computational fluid dynamics modeling of ozone distributions in an aircraft cabin," *Proceedings of 2nd International Conference on Energy and Environment (COBEE 2012)*, Boulder, CO, pp.338-347.
134. Lai, D., Liu, S., Liu, J., Zhou, C., Chen, Q. 2012. "A coupled method to assess outdoor thermal environment in housing communities," *Proceedings of the 10th Healthy Buildings Conference (Healthy Building 2012)*, Brisbane, Australia, paper 9D.1, 6 pages.
133. Chen, Q., Lee, K.S., Memarzadeh, F. and Jin, M. 2012. "Measurements of contaminant distribution in a laboratory in case of chemical spills," *Proceedings of the 10th Healthy Buildings Conference (Healthy Building 2012)*, Brisbane, Australia, paper 5A.1, 6 pages.
132. Wang, M., Lin, C.-H., and Chen, Q. 2011. "Simulation of particle deposition in an airplane cabin mockup," *Proceedings of the Third International Conference on Advances in System Simulation, SIMUL 2011*, pp. 46-51, Barcelona, Spain
131. Wang, M. and Chen, Q. 2011. "A new DES model for indoor airflow modeling," *Proceedings of the 12th International Conference on Air Distribution in Rooms (ROOMVENT 2011)*, 8 pages, Trondheim, Norway.
130. Chao, J, Mu, X., Liu, W., Wu, H., Liu, J., and Chen, Q. 2011. "Rapid construction of a digital geometric model of an airliner cabin for CFD simulations," *Proceedings of the 12th International Conference on Air Distribution in Rooms (ROOMVENT 2011)*, 7 pages, Trondheim, Norway.

129. Wen, J., Liu, W., Mu, X., Lin, C.-H., Liu, J., and Chen, Q. 2011. "Thermal boundary conditions in commercial aircraft cabin for CFD simulations," *Proceedings of the 12th International Conference on Air Distribution in Rooms (ROOMVENT 2011)*, 7 pages, Trondheim, Norway.
128. Wang, M. and Chen, Q. 2011. "Modeling indoor particle contaminant transportation with advanced airflow models," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a190-2, 6 pages, Austin, Texas.
127. Zuo, W. and Chen, Q. 2011. "Validation of a fast-fluid-dynamics model for predicting distribution of particles with low Stokes number," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a159-2, 6 pages, Austin, Texas.
126. Gupta, J.K., Lin, C.-H., and Chen, Q. 2011. "Can gaspers provide protection from airborne contaminants to the occupants in an airliner cabin?" *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a207-2, 6 pages, Austin, Texas.
125. Lee, K., Xue, G., Jiang, Z. and Chen, Q. 2011. "Thermal stratification in building interior zones with under-floor air-distribution systems," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a152-4, 6 pages, Austin, Texas.
124. Xue, G., Lee, K., Jiang, Z. and Chen, Q. 2011. "Design method for indoor spaces with under-floor air distribution systems," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a152-4, 6 pages, Austin, Texas.
123. Liu, W., Lin, C.-H., Liu, J., and Chen, Q. 2011. "Simplifying geometry of an airliner cabin for CFD simulations," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a118-3, 6 pages, Austin, Texas.
122. Meng, L., Liu, J., and Chen, Q. 2011. "Measurements of volatile organic compounds (VOCs) in an airliner cabin," *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a209-9, 5 pages, Austin, Texas.
121. Zuo, W and Chen, Q. 2010. "Fast simulations of smoke transport in buildings" *Proceedings of the 41st HVAC&R Congress*, December 1-3, 2010, Belgrade, Serbia, pp. 340-348.
120. Chen, Q., Mazumdar, S., Poussou, S. and Lin, C.-H. 2010. "Impact of a moving person on transmission of airborne contaminants in airliner cabins," *Proceedings of ASHRAE IAQ Conference on Airborne Infection Control – Ventilation, IAQ & Energy*, page 9C.1-10, Kuala Lumpur, Malaysia.
119. Wang, M. and Chen, Q. 2010. "Test of various turbulence models for airflow in enclosed environments," *Proceedings of IAQVEC 2010: The 7th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, Syracuse, NY, Paper 17-35, 7 pages.
118. Mazumdar, S., Yin, Y., Guity, A., Marmion, P., Gulick, B., Chen, Q. 2010, "Does the disturbance caused by moving objects matter in air quality in an inpatient room with displacement ventilation?" *Proceedings of IAQVEC 2010: The 7th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, Paper 72-90, 8 pages, Syracuse, NY.
117. Gupta, J.K., Lin, C.-H., and Chen, Q. 2010. "Transport of droplets exhaled from coughing in an aircraft cabin," *Proceedings of IAQVEC 2010: The 7th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, Paper 107-135, 7 pages, Syracuse, NY.
116. Hu, J., Zuo, W., and Chen, Q. 2010. "Impact of time-splitting schemes on the accuracy of FFD simulations," *Proceedings of IAQVEC 2010: The 7th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, Paper 55-60, 8 pages, Syracuse, NY.
115. Zuo, W. and Chen, Q. 2010. "Improvements on the fast fluid dynamic model for indoor airflow simulation," *Proceedings of SimBuild 2010 Conference*, NY, 9 pages, New York City.
114. Wang, L., Dols, S., and Chen, Q. 2010. "An introduction to the CFD capabilities in CONTAM 3.0," *Proceedings of SimBuild 2010 Conference*, NY, 7 pages, New York City.
113. Gupta, J.K., Lin, C.-H., and Chen, Q. 2010 "Prediction of spatial and temporal distribution of expiratory droplets in an aircraft cabin," *Proceedings of the First International High Performance Buildings Conference*, IN, 8 pages, West Lafayette.
112. Wei, J., Zhao, J., and Chen, Q. 2010. "Optimal design of a dual airflow window by parametric studies," *Proceedings of CLIMA World Congress*, 8 pages, Antalya, Turkey.
111. Yin, Y., Gupta, J.K., Zhang, X., Chen, Q. 2009. "Distribution of contaminants breathing and coughing out by a patient with different postures in a single-bed ward," *Proceedings of the 6th International Symposium on Heating, Ventilating and Air Conditioning*, Vol. 2, pp.1400-1406, Nanjing, China.
110. Chen, Q., Mazumdar, S., Plesniak, M.W., Poussou, S., Sojka, P.E., Zhang, T., and Zhang, Z. 2009. "Advanced models for predicting airborne contaminant transport in airliner cabins." *Symposium on*

- Research on the Transmission of Disease in Airports and on Aircraft*, Transportation Research Board of the National Academies, 10 pages, Washington, D.C.
109. Gupta, J.K., Lin, C.-H., and Chen, Q. 2009. "Models of defining the thermos-fluid conditions for various exhalations," *Proceedings of the 9th Healthy Buildings Conference (Healthy Building 2009)*, 5 pages, Syracuse, NY.
 108. Poussou, S.B., Mazumdar, S., Plesniak, M.W., Sojka, P.E., and Chen, Q. 2009. "Experimental investigation of flow and contaminant transport in a wake from a moving body inside a small-scale aircraft cabin," *Proceedings of the 9th Healthy Buildings Conference (Healthy Building 2009)*, 4 pages, Syracuse, NY.
 107. Zuo, W. and Chen, Q. 2009. "High-performance and low-cost computing for indoor airflow," *Proceedings of the 11th International IBPSA Conference (Building Simulation 2009)*, 6 pages, Glasgow, UK.
 106. Lee, K., Jiang, Z., and Chen, Q. 2009. "An empirical equation for calculating the Air distribution effectiveness in a room with displacement and UFAD systems," *Proceedings of the 5th International Workshop on Energy and Environment of Residential Buildings and the 3rd International Conference on Built Environment and Public Health (EERB-BEPH 2009)*, 7 pages, Guilin, Guangxi, China.
 105. Yin, Y., Xu W., Gupta J.K., Guity A., Marmion P., Manning A., Gulick B., Zhang X., and Chen Q. 2009. "Comparative study on displacement and mixing ventilation systems for a patient ward," *Proceedings of the 5th International Workshop on Energy and Environment of Residential Buildings and the 3rd International Conference on Built Environment and Public Health (EERB-BEPH 2009)*, 8 pages, Guilin, Guangxi, China.
 104. Chen, Q. 2009. "CFD for air distribution in buildings: The state of the art, challenges, and opportunities" *Proceedings of the 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, pp. 23-31, Busan, Korea.
 103. Zuo, W. and Chen, Q. 2009. "Fast parallelized flow simulations on graphic processing units," *Proceedings of the 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, 7 pages, Busan, Korea.
 102. Suzuki, Y. Mazumdar, S., Kondo, Y., Yoshino, H., and Chen, Q. 2009. "Effect of a moving object on air and contaminant distributions in a commercial kitchen with electrical cooking appliances," *Proceedings of the 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, 8 pages, Busan, Korea.
 101. Lee, K., Jiang, Z., and Chen, Q. 2009. "Air distribution effectiveness with stratified air distribution systems," *Proceedings of the 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, 8 pages, Busan, Korea.
 100. Chen, Q., Lee, K., Mazumdar, K., Poussou, S., Wang, L., Wang, M., and Zhang, Z. 2009. "What is the most appropriate model for predicting ventilation performance in buildings?" *Proceedings of the 1st International Conference on Sustainable Healthy Buildings*, pp. 87-102, Seoul, Korea and *Proceedings of the 5th International Workshop on Energy and Environment of Residential Buildings and the 3rd International Conference on Built Environment and Public Health (EERB-BEPH 2009)*, 18 pages, Guilin, Guangxi, China.
 99. Chen, Q. 2008. "Energy implication of sustainable building design" *Proceedings of the 7th International Conference on Sustainable Energy Technologies*, Vol. 1, pp. 68-75, Seoul, Korea.
 98. Chen, X. and Chen, Q. 2008. "A comparative study of decontaminant delivery strategies in unoccupied commercial aircraft cabins," *Proceedings of the 11th International Conference on Indoor Air Quality and Climate (Indoor Air 2008)*, Paper 296, 8 pages, Copenhagen, Denmark.
 97. Zhang, T., Lee, K., and Chen, Q. 2008. "A simple method to simulate complex air diffusers used for underfloor air distribution systems," *Proceedings of the 11th International Conference on Indoor Air Quality and Climate (Indoor Air 2008)*, Paper 107, 8 pages, Copenhagen, Denmark.
 96. Mazumdar S. and Chen, Q. 2008. "A one-dimensional analytical model to predict airborne contaminant transport inside airliner cabins," *Proceedings of the 11th International Conference on Indoor Air Quality and Climate (Indoor Air 2008)*, Paper 670, 8 pages, Copenhagen, Denmark.
 95. Yin, Y., Zhang, X., and Chen, Q. "A new liquid desiccant system for air-conditioned spaces with high latent and cooling load," *Proceedings of the 12th International Refrigeration and Air Conditioning Conference*, Paper 2346, 8 pages, West Lafayette, IN.

94. Wei, J., Zhao, J., and Chen, Q. 2008. "Comparison of energy demand in buildings with dual-airflow, low-e, and blinds windows," *Proceedings of 1st International Conference on Energy and Environment (COBEE 2008)*, Vol. 1, pp. 86-93, Dalian, China.
93. Fuliotto, R., Cambuli, F., Mandas, N., Bacchin, N., Manara, G., and Chen, Q. 2008. "Experimental and numerical analysis of heat and airflow on an interactive building façade," *Proceedings of 1st International Conference on Energy and Environment (COBEE 2008)*, Vol. 2, pp. 1009-1816, Dalian, China.
92. Mazumdar, S., Poussou, S., Chen, Q., Sojka, P.E., and Plesniak, M.W. 2008. "Experimental and numerical study of flow and contaminant transport inside an aircraft cabin with a moving body," *Proceedings of 1st International Conference on Energy and Environment (COBEE 2008)*, Vol. 2, pp. 1155-1162, Dalian, China.
91. Zhang, Z. and Chen, Q. 2008. "Prediction of particle deposition onto indoor surfaces by CFD with a modified Lagrangian method," *Proceedings of 1st International Conference on Energy and Environment (COBEE 2008)*, Vol. 3, pp. 2000-2007, Dalian, China.
90. Zuo, W. and Chen, Q. 2007. "Real time airflow simulation in buildings," *Proceedings of the 6th International Indoor Air Quality, Ventilation and Energy Conservation in Buildings Conference (IAQVEC 2007)*, Vol. 2, pp. 459-466, Sendai, Japan.
89. Zuo, W. and Chen, Q. 2007. "Validation of fast fluid dynamics for room airflow," *Proceedings of the 10th International IBPSA Conference (Building Simulation 2007)*, pp. 980-983, Beijing, China.
88. Zhang, T. and Chen, Q. 2007. "Identify contaminant sources in airliner cabins by inverse modeling of CFD with information from a sensor," *Proceedings of the 10th International IBPSA Conference (Building Simulation 2007)*, pp. 1477-1484, Beijing, China.
87. Mazumdar, S. and Chen, Q. 2007. "Response of contaminant detection sensors and sensor systems in a commercial aircraft cabin," *Proceedings of the 10th International IBPSA Conference (Building Simulation 2007)*, pp. 854-861, Beijing, China.
86. Wang, L. and Chen, Q. 2007. "Analysis on the well-mixing assumptions used in multizone airflow network models," *Proceedings of the 10th International IBPSA Conference (Building Simulation 2007)*, pp. 1485-1490, Beijing, China.
85. Chen, Q., Zhang, Z., and Zuo, W. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," *Proceedings of XXV Congresso Nazionale UIT sulla Trasmissione del Calore (25th UIT National Heat Transfer Conference)*, pp. 3-8, Trieste, Italy and also in *Proceedings of the 6th International Indoor Air Quality, Ventilation and Energy Conservation in Buildings Conference (IAQVEC 2007)*, Vol. 3, pp. 1-9, Sendai, Japan.
84. Zhang, Z., Chen, X., Mazumdar, S., Zhang, T., and Chen, Q. 2007. "Experimental and numerical investigation of airflow and contaminant transport in an airliner cabin mock-up," *Proceedings of the 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Paper 1147, 9 pages, Helsinki, Finland.
83. Zhang, Z., Zhai, J. Z., and Chen, Q. 2007. "Evaluation of various CFD models in predicting room airflow and turbulence," *Proceedings of the 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Paper 1148, 10 pages, Helsinki, Finland.
82. Mazumdar, S. and Chen, Q. 2007. "Impact of moving bodies on airflow and contaminant transport inside aircraft cabins," *Proceedings of the 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Paper 1218, 9 pages, Helsinki, Finland.
81. Zhang, T., Chen, Q., and Lin C.H. 2007. "Optimizing contaminant sensor locations in a twin-aisle aircraft cabin," *Proceedings of the 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Paper 1304, 10 pages, Helsinki, Finland.
80. Chen, X. and Chen, Q. 2007. "Numerical investigation of decontaminant delivery strategies in a commercial aircraft cabin," *Proceedings of the 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Paper 1169, 10 pages, Helsinki, Finland.
79. Zhang, Z. and Chen, Q. 2006. "A comparison of predicting particle transport in indoor environment by Eulerian and Lagrangian methods," *The 8th Healthy Buildings Conference (Healthy Building 2006)*, Vol. V, pp. 67-72, Lisbon, Portugal.
78. Gosselin, J.R. and Chen, Q. 2006. "A ventilated window for indoor air quality improvement in residential buildings," *The 8th Healthy Buildings Conference (Healthy Building 2006)*, Vol. IV, pp. 389-394, Lisbon, Portugal.

77. Wang, L. and Chen, Q. 2006. "Coupling multizone and CFD programs for building contaminant transport simulations," *The 8th Healthy Buildings Conference (Healthy Building 2006)*, Vol. V, pp.83-88, Lisbon, Portugal.
76. Zhang, W. and Chen, Q. 2005. "Large eddy simulation of the buoyancy flow driven by a corner heat source in a compartment," *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Indoor Air 2005)*, Vol. I(2), pp. 1294-1299, Beijing, China.
75. Djunaedy, E., Hensen, J.L.M., Chen, Q., and Loomans, M.G.L.C. 2005. "Simulating radiative cooling/heating using BES-CFD coupled simulation," *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Indoor Air 2005)*, Vol. I(2), pp. 1344-1348, Beijing, China.
74. Lau, J. and Chen, Q. 2005. "Impact of air supply and exhaust conditions on room air distribution with floor-supply displacement ventilation," *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Indoor Air 2005)*, Vol. I(2), pp. 1391-1396, Beijing, China.
73. Zhang, Z. and Chen, Q. 2005. "Particle dispersion in a room with under-floor air distribution," *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Indoor Air 2005)*, Vol. III, pp. 2373-2378, Beijing, China.
72. Zhang, T. and Chen, Q. 2005. "Comparison of different ventilation systems for commercial aircraft cabins," *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Indoor Air 2005)*, Vol. IV, pp. 3205-3210, Beijing, China.
71. Wang, L. and Chen, Q. 2005. "On solution characteristics of coupling of multizone and CFD programs in building air distribution simulation," *Proceedings of the 9th International IBPSA Conference (Building Simulation 2005)*, pp. 1315-1322, Montreal, Canada.
70. Gosselin, J. and Chen, Q. 2004. "Examples of energy efficient and healthy building design in developed countries," *The 3rd International Workshop on Energy and Environment of Residential Buildings*, pp. 10-18, Xi'an, China.
69. Zhang Z. and Chen Q. 2004. "Numerical analysis of particle behaviors in indoor air using Lagrangian method," *Proceedings of the 9th International Conference on Air Distribution in Rooms (ROOMVENT 2004) (Modeling Techniques)*, 6 pages, Coimbra, Portugal.
68. Zhai, Z., Gao, Y., and Chen, Q. 2004. "Pressure boundary conditions in multi-zone and CFD program coupling," *SimBuild 2004, The 1st IBPSA-USA National Conference*, 11 pages, Boulder, CO.
67. Chen, Q. 2004. "Designing healthy, safe, and energy-efficient building," Keynote paper, *Proceedings of the 7th International Symposium on Building and Urban Environmental Engineering*, pp. 102-111, Tianjin, China.
66. Wang, L. and Chen, Q. 2004. "Using a coupled multizone and CFD program for natural ventilation studies," *The 5th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings and Proceedings of 2004 World Building Congress (CIB 2004)*, paper 310, 10 pages, Toronto, Canada.
65. Chen, Q. 2003. "Indoor environment modeling by computational fluid dynamics," Invited paper, *The 3rd International Symposium on Advanced Fluid Information AFI-2003*, pp. 23-24, New York, NY.
64. Chen, Q. and Zhai, Z. 2003. "How realistic is CFD as a tool for indoor environment design and studies without experiment?" Keynote paper, *Proceedings of the 4th International Symposium on HVAC (ISHVAC 03)*, Vol. 1, pp. 62-77, Tsinghua University Press, Beijing, China.
63. Gao, Y. and Chen, Q. 2003. "Coupling of a multi-zone airflow analysis program with a computational fluid dynamics program for indoor air quality studies," *Proceedings of the 4th International Symposium on HVAC (ISHVAC 03)*, Vol. 1, pp. 236-242, Tsinghua University Press, Beijing, China.
62. Zhai, Z. and Chen, Q. 2003. "Impact of determination of convective heat transfer on the coupled energy and CFD simulation for buildings," *Proceedings of the 8th International IBPSA Conference (Building Simulation 2003)*, Vol. 3, pp. 1467-1474, Eindhoven, The Netherlands.
61. Chen, Q. 2003. "CFD simulation of displacement ventilation," Invited Lecture, *Proceedings of the 7th International Symposium on Ventilation for Contaminant Control, Ventilation 2003*, pp. 651-656, Sapporo, Japan.
60. Olsen, E.L. and Chen, Q. 2002. "Performance comparison of U.K. low-energy cooling systems by EnergyPlus," *Proceedings of the 6th International Conference on System Simulation in Buildings (SSB 2002)*, 17 pages, Liege, Belgium.
59. Jiang, Y. and Chen, Q. 2002. "Buoyancy-driven natural ventilation in buildings: experimental and numerical studies," *Proceedings of the 8th International Conference on Air Distribution in Rooms (ROOMVENT 2002)*, pp. 601-604, Copenhagen, Denmark.

58. Ribot, B., Chen, Q., Huang, J.M., and Rivoalen, H. 2002. "Numerical simulations of indoor air quality in a French house," *Proceedings of the 9th International Conference on Indoor Air Quality and Climate (Indoor Air 2002)*, pp. 524-529, Monterey, California.
57. Zhai, Z., Chen, Q., and Scanlon, P. 2002. "Venting contaminants and fire smoke from an indoor auto-racing complex," *Proceedings of the 9th International Conference on Indoor Air Quality and Climate (Indoor Air 2002)*, pp. 830-835, Monterey, California.
56. Jiang, Y. and Chen, Q. 2002. "Study of particle dispersion in buildings with large eddy simulation," *Proceedings of the 9th International Conference on Indoor Air Quality and Climate (Indoor Air 2002)*, pp. 530-535, Monterey, California.
55. Chen, Q. 2002. "Wind in building environment design," *Proceedings of the 2nd International Workshop on Energy and Environment of Residential Buildings in China*, pp. 142-151, Shanghai, China.
54. Allocca, C., Chen, Q., and Glicksman, L.R. 2001. "A computational study of single-sided ventilation," *Proceedings of 4th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (IAQVEC 2001)*, Vol. 1, pp. 261-268, Hunan, China.
53. Jiang, Y. and Chen, Q. 2001. "Using large eddy simulation to study the effects of turbulence scale on the pressure distribution around a building," *Proceedings of the 5th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA 2000*, 14 pages, Napoli, Italy.
52. Srebric, J. and Chen, Q. 2001. "Boundary conditions for diffusers in room air distribution calculations," *Proceedings of the 5th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning: CLIMA 2000*, 15 pages, Napoli, Italy.
51. Zhai, Z., Chen, Q., Klems, J.H., and Haves, P. 2001. "Strategies for coupling energy simulation programs and computational fluid dynamics programs," *Proceedings of the 7th International IBPSA Conference (Building Simulation 2001)*, Vol. 1, pp. 59-66, Rio de Janeiro, Brazil.
50. Karola, A., Lahtela, H., Hänninen, R., Hitchcock, R., Chen, Q., Dajka, S., and Hagström, K. 2001. "BSPro Com-server- interoperability between software tools using industry foundation classes," *Proceedings of the 7th International IBPSA Conference (Building Simulation 2001)*, Vol. 2, pp. 747-753, Rio de Janeiro, Brazil.
49. Broderick, C.R. and Chen, Q. 2001. "A simple interface to CFD codes for building environment simulations," *Proceedings of the 7th International IBPSA Conference (Building Simulation 2001)*, Vol. 1, pp. 577-584, Rio de Janeiro, Brazil.
48. Su, M. and Chen, Q. 2001. "A stimulated small scale model of LES for calculation of airflow in and around buildings," *Proceedings of the 1st M.I.T. Conference on Computational Fluid and Solid Mechanics*, Vol. 2, pp. 973-976, Cambridge, MA.
47. Zhai, Z., Hamilton, S.D., Huang, J., Allocca, C., Kobayashi, N., and Chen, Q. 2000. "Integration of indoor and outdoor airflow study for natural ventilation design using CFD," *Proceedings of the 21st AIVC Annual Conference on Innovations in Ventilation Technology*, pp. 13.1-13.13, The Hague, The Netherlands.
46. Huang, J. and Chen, Q. 2000. "Modeling contaminant exposure and indoor air quality in a single-family house," *Proceedings of the 21st AIVC Annual Conference on Innovations in Ventilation Technology*, pp. 15.1-15.13, The Hague, The Netherlands.
45. Laine, T., Kosonen, R., Hagström, K., Mustakallio, P., Yin, D.-W., Haves, P., and Chen, Q. 2000. "Better IAQ through integrating design tools for the HVAC industry," *Proceedings of the 6th Healthy Buildings Conference (Healthy Buildings 2000)*, Vol. 4, pp. 279-284, Espoo, Finland.
44. Zhang, J., Zhang, J., Chen, Q., and Yang, X. 2000. "A critical review on VOC sorption models," *Proceedings of the 6th Healthy Buildings Conference (Healthy Buildings 2000)*, Vol. 4, pp. 187-192, Espoo, Finland.
43. Demokritou, P., Chen, Q., Yang, C., and Spengler, J. 2000. "The impact of ventilation on air quality in indoor ice rink arenas," *Proceedings of the 6th Healthy Buildings Conference (Healthy Buildings 2000)*, Vol. 2, pp. 407-412, Espoo, Finland.
42. Srebric, J., Liu, J., and Chen, Q. 2000. "Experimental validation of jet formulae for air supply diffusers," *Proceedings of the 7th International Conference on Air Distribution in Rooms (ROOMVENT 2000)*, Vol. 1, pp. 529-534, Reading, U.K.
41. Arens, A., Glicksman, L., and Chen, Q. 2000. "Evaluation of displacement ventilation for high-ceiling areas," *Proceedings of the 7th International Conference on Air Distribution in Rooms (ROOMVENT 2000)*, Vol. 2, pp. 725-730, Reading, U.K.
40. Su, M., Chiang, C.M., and Chen, Q. 2000. "Large eddy simulation of displacement ventilation,"

- Proceedings of the 12th Conference on Architectural Research of the Architecture Society of the Republic of China*, pp. 557-560, Taipei, Taiwan.
39. Chiang, C.M., Chen, Q., Chou, P.C., and Lai, C.M. 2000. "Prediction of airflow distribution as a tool to assist the architecture design – using CFD numerical simulation technique," *Proceedings of the 12th Conference on Architectural Research of the Architecture Society of the Republic of China*, pp. 551-564, Taipei, Taiwan.
 38. Glicksman, L., Chen, Q., Norford, L., and Scott, A. 1999. "Sustainable buildings for Chinese urban areas," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 1, pp. 93-103, Shenzhen, China.
 37. Norford, L., Caldas, L., Kaufman, J., Glicksman, L.R., Scott, A.M., Chen, Q. 1999. "Opportunities to maintain thermal comfort in Beijing housing without vapor compression cooling equipment," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 1, pp. 226-236, Shenzhen, China.
 36. Carrilho da Graça, G, Chen, Q., Glicksman, L.R., and Norford, L.K. 1999. "Simulation of wind driven ventilative cooling in an apartment building in Beijing and Shanghai," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 2, pp. 648-658, Shenzhen, China.
 35. Jiang, Y., Xing, H., Straub, C., Chen, Q., Scott, A.M., Glicksman, L.R., and Norford, L.K. 1999. "Design natural ventilation in buildings and outdoor comfort around buildings by an architect and engineer team with a CFD program," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 2, pp. 591-601, Shenzhen, China.
 34. Srebric, J., Chen, Q., and Glicksman, L.R. 1999. "A computer design tool for non-uniform indoor thermal environment problems," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 2, pp. 635-647, Shenzhen, China.
 33. Lin, Z., Chow, T.T., Fang, K.F., Wang, Q.W., and Chen, Q. 1999. "Validation of CFD model for research into application of displacement ventilation to Hong Kong buildings," *Proceedings of the 3rd International Symposium on HVAC (ISHVAC '99)*, Vol. 2, pp. 602-613, Shenzhen, China.
 32. Lin, Z., Chow, T.T., Fong, K.F., and Chen, Q. 1999. "CFD simulation of concentrations of gaseous impurities in a typical Hong Kong office," *Proceedings of the 20th International Congress of Refrigeration*, 7 pages, Sydney, Australia.
 31. Zhang, W. and Chen, Q. 1999. "A new filtered dynamic subgrid-scale model for large eddy simulation of indoor airflow," *Proceedings of the 6th International IBPSA Conference (Building Simulation 1999)*, Vol. I, pp. 415-422, Kyoto, Japan.
 30. Yang, X. and Chen, Q. 1999. "A model for numerical simulation of VOC sorption by building materials," *Proceedings of the 8th International Conference on Indoor Air Quality and Climate (Indoor Air 1999)*, Vol. 4, pp. 797-802, Edinburgh, Scotland.
 29. Zeng, J. Yang, X., Zhang, J.S., Chen, Q., and Nong, G. 1999. "Effects of temperature on VOC emissions from "wet" coating materials," *Proceedings of the 8th International Conference on Indoor Air Quality and Climate (Indoor Air 1999)*, Vol. 5, pp. 185-190, Edinburgh, Scotland.
 28. Zhang, W. and Chen, Q. 1999. "Large eddy simulation of natural convection flow in a room with a filtered dynamic subgrid scale model," *International Symposium on Computational Technologies for Fluid/Thermal/Structural/Chemical Systems with Industrial Applications*, pp. 263-268, PVP-Vol. 297-1, Edited by Klein C.R. and Kawano, S., Boston, MA.
 27. Lin, Z., Chow, T.T., Fong, K.F., and Chen, Q., 1998. "Review on application of displacement ventilation to Hong Kong buildings," *Proceedings of the 5th International Conference on Tall Buildings*, Vol. I, pp. 246-251, Shanghai, China.
 26. Chen, Q., Yuan, X., Hu, Y., Glicksman, L.R., and Yang, X. 1998. "Detailed experimental data of room airflow with displacement ventilation," *Proceedings of the 6th International Conference on Air Distribution in Rooms (ROOMVENT 1998)*, Vol. 1, pp. 133-140, Stockholm, Sweden.
 25. Glicksman, L.R. and Chen, Q. 1998. "Interaction of radiation absorbed by moisture in air with other forms of heat transfer in enclosure," *Proceedings of the 6th International Conference on Air Distribution in Rooms (ROOMVENT 1998)*, Vol. 2, pp. 111-118, Stockholm, Sweden.
 24. He, W. and Chen, Q. 1997. "Numerical simulation of molten carbonate fuel-cell power-generation systems," *Proceedings of ASME Winter Meeting*, AES-Vol. 37, pp. 249-256, Dallas, TX.
 23. Yang, X., Chen, Q., and Zhang, J.S. 1997 "Study of VOC emissions from building materials using computational fluid dynamics," *Proceedings of the 5th Healthy Buildings Conference/IAQ '97*, pp. 587-592, Washington, DC.

22. Chen, Q. and Xu, W. 1997. "Simplified method for indoor airflow simulation," *Proceedings of the 4th World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning (CLIMA 2000)*, 17 pages, Brussels, Belgium.
21. He, W. and Chen, Q. 1996. "Three-dimensional simulation of a molten carbonate fuel cell stack under transient conditions," *Proceedings of the ASME International Mechanical Engineering Congress and Exposition*, ASE-Vol. 36, pp. 285-293, Atlanta, GA.
20. He, W. and Chen, Q. 1996. "Three-dimensional and dynamic performance of molten carbonate fuel cell stacks," *Proceedings of 1996 Fuel Cell Seminar*, pp. 406-409, Orlando, FL.
19. Chen, Q. and Chao, N.-T. 1996. "Prediction of buoyant plume and displacement ventilation with different turbulence models," *Proceedings of the 7th International Conference on Indoor Air Quality and Climate (Indoor Air 1996)*, Vol. 1, pp. 787-792, Nagoya, Japan.
18. Chen, Q. and Jiang, Z. 1996. "Simulation of a complex air diffuser," *Proceedings of the 5th International Conference on Air Distribution in Rooms (ROOMVENT 1996)*, Vol. 1, pp. 227-234, Yokohama, Japan.
17. Jiang, Z., Haghghat, F., and Chen, Q. 1995. "Buoyancy effects on indoor air quality in a partitioned office with displacement ventilation", *Proceedings of the 2nd Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*, Vol. 1, pp. 435-447, Edited by F. Haghghat, Concordia University, Montreal, Canada.
16. He, W. and Chen, Q. 1995. "Application of computational fluid dynamics technique on simulation of a molten carbonate fuel cell stack," *Proceedings of the 1st Asian Computational Fluid Dynamics Conference*, Vol. 3, pp. 991-999, Edited by W.H. Hui, Y.-K. Kwok, and J.R. Chasnov, Hong Kong.
15. Chen, Q. 1995. "Prediction of film flow in an absorption system by the scalar-equation method," *Proceedings of the 19th International Congress of Refrigeration*, Vol. 4a, pp. 115-122, The Hague, The Netherlands.
14. Peng, X., Paassen, A.H.C. van, and Chen, Q. 1994. "A type of calculation of indoor dynamic temperature distributions," *Proceedings of 4th International Conference on System Simulation in Buildings*, pp. 57-65, Liege, Belgium.
13. Chen, Q., Jiang, Z., and Moser, A. 1993. "Selection of supply air parameters for a comfortable indoor environment," *Proceeding of the 3rd International Symposium on Ventilation for Contaminant Control (Ventilation 1991)*, pp. 269-275, Edited by R.T. Hughes, H.D. Goodfellow, and G.S. Rajhans, Cincinnati, OH.
12. Chen, Q. and Nieuwstadt, F.T.M. 1993. "Numerical prediction of turbulent swirling flow in a straight pipe," *Proceedings of the 5th International Symposium on Refined Flow Modelling and Turbulence Measurements*, pp. 505-512, Paris, France.
11. Chen, Q. and Dalhuijsen, A.J. 1992. "A design tool for optimal comfort and air quality in a passenger's car," *Proceedings of the 2nd International Conference on Vehicle Comfort: Ergonomic, Vibrational, Noise and Thermal Comfort Aspects*, pp. 261-269, Bologna, Italy.
10. Chen, Q. and Moser, A. 1991. "Simulation of a multiple-nozzle diffuser," *Proceedings of the 12th AIVC Conference on Air Movement and Ventilation Control within Buildings*, Vol. 2, pp. 1-13, Ottawa, Canada.
9. Kooi, J. van der, Chen, Q., and Paassen, A.H.C. van 1990. "Environmental aspects of the indoor climate", *Proceedings of Symposium Proces en Energie in het Milieu*, pp. 7.1-7.14, Delft, The Netherlands.
8. Chen, Q., Suter, P., and Moser, A. 1990. "Evaluation of indoor air quality by a perceived comfort equation," *Proceedings of the 5th International Conference on Indoor Air Quality and Climate (Indoor Air 1990)*, Vol. 1, pp. 543-548, Toronto, Canada.
7. Huber, A., Moser, A., and Chen, Q. 1990. "Calculation of the air flow pattern in a proposed new European test chamber for radiators," *Proceedings of the 11th AIVC Conference on Ventilation System Performance*, pp. 1-14, Belgirate, Italy.
6. Chen, Q. and Kooi, J. van der 1989. "Calculation of air-conditioning load in rooms with temperature stratification", *Proceedings of the 2nd World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning (CLIMA 2000)*, Vol. 3, pp. 249-254, Sarajevo, Yugoslavia.
5. Kooi, J. van der and Chen, Q. 1989. "Thermal performance of a room with air displacement ventilation system," *Proceedings of the 2nd World Congress of Heating, Ventilating, Refrigerating and Air-Conditioning (CLIMA 2000)*, Vol. 3, pp. 98-103, Sarajevo, Yugoslavia.
4. Chen, Q., Meyers, C.A., and Kooi, J. van der. 1989. "Convective heat transfer in rooms with mixed convection," *Proceedings of International Seminar on Air Flow Patterns in Ventilated Spaces*, pp. 69-

- 82, Liege, Belgium.
3. Kooi, J. van der and Chen, Q. 1987. "Improvement of cooling load programs by combination with an air flow program," *Proceedings of the 17th International Congress of Refrigeration*, Vol. E, pp. 29-34, Vienna, Austria.
 2. Chen, Q. and Kooi, J. van der 1987. "Measurements and computations on air movement and temperature distribution in a climate room," *Proceedings of the 17th International Congress of Refrigeration*, Vol. E, pp. 23-28, Vienna, Austria.
 1. Chen, Q. and Kooi, J. van der 1987. "Experiments and 2D approximated computations of 3D air-movement, heat and concentration transfer in a room," *Proceedings of the 1st International Conference on Air Distribution in Ventilated Spaces (ROOMVENT 1987)*, Vol. 4a, pp. 1-16, Stockholm, Sweden.

Editorials

9. Chen, Q. 2015. A brief account of Building and Environment's 50-year history, *Building and Environment*, 90, 1-4.
8. Chen, Q. 2013. Letter from the Editor: Building and Environment has continued to improve in all dimensions, *Building and Environment*, 59, iii-iv.
7. Chen, Q. 2012. Letter from the Editor: It is again a great year for Building and Environment, *Building and Environment*, 47, 1-2.
6. Chen, Q. 2011. Letter from the Editor: Impact factor for a journal and impact of an author: are they the same? *Building and Environment*, 46, 1-2.
5. Chen, Q. 2010. Letter from the Editor: Thank you, Building and Environment reviewers! *Building and Environment*, 45, 1.
4. Chen, Q. 2009. Letter from the Editor: Building and Environment is heading towards the next level of excellence, *Building and Environment*, 44, 229-230.
3. Chen, Q. 2008. Letter from the Editor: Bringing Building and Environment to the next level of excellence, *Building and Environment*, 43, 386-387.
2. Chen, Q. 2007. Computer simulations and experimental measurements of air distribution in buildings: Past, present, and future, *HVAC&R Research*, 13(6), 849-851.
1. Chen, Q. 2004. Protecting buildings from chemical and biological warfare agent attacks – a long journey, *HVAC&R Research*, 10(4), 389-391.

Other Major Publications/Presentations

65. Chen, Q. 2018. "Overview of the national key R&D project on strategies for improving ventilation and indoor air quality in Chinese residential buildings," Extended abstract. Presented in *Indoor Air 2018 International Conference*, Philadelphia, PA, USA.
64. Chen, Q. and Liu, W. 2018 "Adaptive coarse-grid generation methods used in simulating indoor airflow by fast fluid dynamics," Presented at Seminar 23 on: Faster, Cheaper, More Accessible: The Latest Research in Airflow and Thermal Modeling of Indoor Environments, *ASHRAE Annual Meeting*, Houston, TX.
63. Chen, Q., Liu, W., and Zhao, X. 2018 "Inverse indoor environment designs by CFD-based adjoint method," Presented at Seminar 35 on: Inverse Design and Modeling for Indoor Environment, *ASHRAE Annual Meeting*, Houston, TX.
62. Liu, W. and Chen, Q. 2017 "Inverse design of enclosed environment by CFD-based adjoint method," Presented at Seminar 63 on Inverse Design: A Fast Way to Achieve Your Goal in IAQ, *ASHRAE Winter Meeting*, Las Vegas, NV.
61. Rai, A.C., Lin, C.-H., and Chen, Q. 2016. "Numerical modeling of VOC emissions from ozone reactions with human-worn clothing in an aircraft cabin," Presented at Seminar 45 on Indoor Environmental Quality, *ASHRAE Winter Meeting*, Orlando, FL.
60. Jin, M., Liu, W., and Chen, Q. 2016. "Accelerating fast fluid dynamics with a coarse-grid projection scheme," Presented at Seminar 42 on Trending Research and Advances in Simulation, *ASHRAE Winter Meeting*, Orlando, FL.
59. Liu, W. and Chen, Q. 2015. "Numerical study of the reattachment length in the backward-facing step flow," Presented at Workshop W4: To Predict Low Turbulent Flow on the 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE), Tianjin, China.

58. Chen, Q., He, F., Liu, J., Xin, X., Yang, C., Yang, X., and Zhu, Y. 2014. "Control of the air environment in commercial airliner cabins," in *The Chinese Research Paradigm: Addressing Global Science Issues*, Science Supplement, 33-36.
57. Chen, Q. 2014 "Indoor environment and energy analysis for a winery building," Presented at ASHRAE Annual Meeting, Seattle, WA.
56. Rai, A.C. and Chen, Q. 2014. "Ozone initiated chemistry and its impact on indoor air quality," RITE/ACER Industry Partners Meeting and Symposium, Melbourne, FL.
55. Chen, C. and Chen, Q. 2013. "Modeling expiratory particles transport in a mechanical ventilation space," ASHRAE Winter Meeting, Dallas, TX.
54. Chen, Q. 2012. "Energy analysis in a winery building in northern China - A case study," Presented at Workshop on Sustainable and High-Performance Industrial Facility Technologies (SHIFT), Tianjin, China.
53. Liu, W. and Chen, Q. 2012. "What should we do when CFD simulations do not agree with measured data?" Presented at the 2nd International Conference on Energy and Environment (COBEE 2012), Boulder, CO.
52. Chen, Q. 2012. "Challenges in designing air distributions in commercial airliner cabins," Presented at the 10th Healthy Buildings Conference (Healthy Building 2012), Brisbane, Australia.
51. Chen, Q., Wang, H., and Jiang, Yi. 2012. "How to define flow boundary conditions for natural ventilation through large openings by CFD?" Presented at ASHRAE Annual Meeting, San Antonio, TX.
50. Chen, Q. 2011. "Impact of moving objects on contaminant concentration distributions in an inpatient ward with displacement ventilation," Presented at ASHRAE Annual Meeting, Montreal, QC.
49. Xue, G., Lee, K.S., Jiang, Z., and Chen, Q. 2011. "A simplified design method for indoor spaces with UFAD systems," Presented at ASHRAE Annual Meeting, Montreal, QC.
48. Mu, X., Wen, J., Liu, W., Gong, Z., Lin, C.-H., Liu, J. and Chen, Q. 2011. "Experimental measurements of thermofluid boundary conditions in commercial aircraft," Presented at *the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011)*, Paper a206-3, Austin, Texas.
47. Chen, Q. 2010. "Is displacement ventilation suitable for a patient ward?" Presented at *the 21st Congress of the International Confederation of Hospital Engineering (IFHE)*, Tokyo, Japan.
46. Chen, Q. 2010. "Suitable air distribution systems for commercial airliner cabins," Presented in Workshop "Personalized Ventilation – a Control Technique for Airborne Infection" at *ASHRAE IAQ Conference on Airborne Infection Control – Ventilation, IAQ & Energy*, Kuala Lumpur, Malaysia.
45. Gupta, J., Lin, C.-H., and Chen, Q. 2010. "Deterministic and probabilistic assessment of exposure risk of airborne infectious diseases in airliner cabins," Presented in the *International Workshop on Ventilation, Comfort, and Health in Transport Vehicles*, Tianjin, China.
44. Liu, W., and Liu, J., and Chen, Q. 2010. "Studies of air distribution in airliner cabins: a review of the research methods," Presented in the *International Workshop on Ventilation, Comfort, and Health in Transport Vehicles*, Tianjin, China.
43. Wang, M. and Chen, Q. 2010. "Comparison of advanced turbulence models in predicting particle transport in indoor environment," Presented in the *International Workshop on Ventilation, Comfort, and Health in Transport Vehicles*, Tianjin, China.
42. Yin, Y., Xu, W., Gupta, J., Guity, A., Marmion, P., Manning, A., Gulick, B., Zhang, X., and Chen, Q. 2010. "Comparative study on displacement and mixing ventilation in a patient ward," Presented in *Seminar 19: Displacement Ventilation for Patient Rooms*, ASHRAE Annual Meeting, Albuquerque, NM.
41. Chen, Q. 2010 "Transmission of airborne contaminants in airliner cabins," ESTECH 2010, Reno, NV.
40. Zhang, Z. And Chen, Q. 2010. "Prediction of particle deposition onto indoor surfaces by CFD with a modified Lagrangian method," Presented at *Seminar 38: Modeling of Particle Transport in the Indoor Environment*, ASHRAE Winter Meeting, Orlando, FL.
39. Zuo, W. And Chen, Q. 2010. "Fast predictions of particles with small stokes number in a ventilated room," Presented at *Seminar 38: Modeling of Particle Transport in the Indoor Environment*, ASHRAE Winter Meeting, Orlando, FL.
38. Lin, C.-H., Gupta, J.K., and Chen, Q. 2009. Characterization of exhaled airflow from various modes of human respiration," Presented at *SAE 2009 AeroTech Congress and Exhibition*, Seattle, WA.
37. Lee, K., Jiang, Z., and Chen, Q. "Comparing ventilation effectiveness of traditional ventilation and underfloor air distribution systems," Presented at the workshop of *the 9th Healthy Buildings Conference (Healthy Building 2009)*, Syracuse, NY.

36. Zhang, T, Chen, Q., and Mazumdar, S. 2009. "System to pinpoint airline passengers who contaminate cabins," Presented in a seminar at *ASHRAE Annual Meeting*, Louisville, KY.
35. Zhang, T., Lee, K., Chen, Q. and Zuo, W. 2009. "A simplified approach to describe complex diffusers in displacement ventilation for CFD simulations," Presented in a seminar at *ASHRAE Annual Meeting*, Louisville, KY.
34. Chen, Q. 2009. "Air distribution and contaminant transport in airliner cabins," Presented in a workshop in *the 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, Busan, Korea.
33. Suzuki, Y., Kondo, Y., Yoshino, H., and Chen, Q. 2009. "CFD modeling of moving body in a commercial kitchen: Part 2 CFD simulation based on combined dynamic and static mesh scheme," (in Japanese) *Annual Meeting Architectural Institute of Japan*, pp. 1-2.
32. Yin, Y., Xu, W., Gupta, J., Guity, A., Marmion, P., Manning, A., Gulick, B., Zhang, X., and Chen, Q. 2009. "Comparative study on displacement and mixing ventilation in a patient ward," *2009 International Conference and Exhibition on Healthy Facility Planning, Design and Construction (PDC)*, Phoenix, AZ.
31. Wang, M., Zhang, Z., and Chen, Q. 2009. "Evaluation of various turbulence models in predicting airflow and turbulence in enclosed environments by CFD," Presented in a seminar at *ASHRAE Winter Meeting*, Chicago, IL.
30. Zuo, W., and Chen, Q. 2009. "Real time simulation for airflow motion and contaminant transportation in buildings," Presented in a seminar at *ASHRAE Winter Meeting*, Chicago, IL.
29. Zhang, T, Chen, Q., and Mazumdar, S. 2009. "System to pinpoint airline passengers who contaminate cabins ," Presented in a seminar at *ASHRAE Winter Meeting*, Chicago, IL.
28. Mazumdar, S., Priyadarshana, P.A., Keshavarz, A., Chen, Q., and Jones, B.W. 2008. "Flow characteristics from air supply diffusers and their effect on airflow and contaminant transport inside aircraft cabin," *The 11th International Conference on Indoor Air Quality and Climate (Indoor Air 2008)*, Paper 669, Copenhagen, Denmark.
27. Zuo, W. and Chen, Q. 2008. "Real-time airflow simulation in buildings by using graphic processing units," *Abstract Book of the 1st International Conference on Energy and Environment (COBEE 2008)*, T11-01, p. 274, Dalian, China.
26. Zhang, T. and Chen, Q. 2008. "A review on using thermal manikins for assessment of human microenvironment," *Abstract Book of the 1st International Conference on Energy and Environment (COBEE 2008)*, T03-20, p. 97, Dalian, China.
25. Zhang, T. and Chen, Q. 2008. "Comparison of the quasi-reversibility and pseudo-reversibility methods in identifying an indoor airborne contaminant source," *Abstract Book of the 1st International Conference on Energy and Environment (COBEE 2008)*, F03-03, p.347, Dalian, China.
24. Mazumdar, S., Poussou, S., Chen, Q., Plesniak, M.W., and Sojka, P. 2008. "Experimental and CFD modeling of moving body effects on contaminant transport inside aircraft cabins," *ASHRAE Annual Meeting*, Salt Lake City, UT.
23. Zhang, Z. and Chen, Q. 2007. "Study of natural ventilation in built environment with large eddy simulation," Seminar 29 on Natural Ventilation: Modeling and Measurements Part 1. State of the Art in Prediction and Design, *ASHRAE Annual Meeting*, Long Beach, CA.
22. Zuo, W., Chen, Q., Yuan, X., and Glicksman, L.R. 2007. "Displacement ventilation system modeling," Seminar 19 on Modeling Stratified Room Air Distributions with Energy Simulation Tools, *ASHRAE Annual Meeting*, Long Beach, CA.
21. Chen, Q. 2007. "Impact of various air distribution systems on air quality in enclosed environment," Workshop on Personal Environmental Control, *The 10th International Conference on Air Distribution in Rooms (ROOMVENT 2007)*, Helsinki, Finland.
20. Zhang, T. and Chen, Q. 2006. "Inverse prediction of contaminant transport in enclosed environment" *The 8th International Symposium on Ventilation for Contaminant Control (Ventilation 2006)*, Chicago, IL.
19. Chen, Q. 2006. "How to correctly use CFD as a tool for ventilation design?" *The 8th International Symposium on Ventilation for Contaminant Control (Ventilation 2006)*, Chicago, IL.
18. Wang, L. and Chen, Q. 2006. "Coupling of multizone and CFD programs for building airflow distribution and contaminant transport simulations," *The 8th International Symposium on Ventilation for Contaminant Control (Ventilation 2006)*, Chicago, IL.
17. Chen, Q. 2004. "Editorial: Protecting buildings from chemical and biological warfare agent attacks– a long journey," *HVAC&R Research*, 10(4): 389-391.

16. Chen, Q. 2001. "Lecture notes on wind in building environment design," *Workshop on Sustainable Housing Design in China*, Beijing and Shenzhen, China, pp. 72-101.
15. Chen, Q. 2001. "Application of large eddy simulation for ventilation design," Presented at Seminar "Advances in Computational Fluid Dynamics Applications", *ASHRAE Annual Meeting*, Cincinnati, OH.
14. Chen, Q., Allocca, C., Hamilton, S., Huang, J., Jiang, Y., Kobayashi, N. and Zhai, Z. 2000. "Building natural ventilation design and studies," *Proceeding of Conference on Thermal Environment of Residential Buildings*, 6 pages, Beijing, China.
13. Chen, Q. 1999. "Building material emissions and indoor air quality," *International Forum of IAQ Problems of Developed and Developing Countries for Sustainable Indoor Environment*, pp. 47-53, Tokyo, Japan.
12. Chen, Q. and Xu, W. 1997. "Modeling industrial turbulent flows," Lecture Notes, 103 pages, Tsinghua University, Beijing, China.
11. Chen, Q. and Xu, W. 1997. "A simplified method to simulate room air flows," *ASHRAE Annual Meeting*, Boston, MA.
10. Glicksman, L.R., Chen, Q., Dorsey, J., Feldgoise, J., and Norford, L. 1996. "Tools for evaluating and creating the next generation of sustainable buildings," *Workshop on Future Cities*, The Alliance for Global Sustainability, Cambridge, MA.
9. Chen, Q. 1994. "How far can we go with PHOENICS?" *The 8th Dutch PHOENICS Users Meeting*, Eindhoven, The Netherlands.
8. Chen, Q. 1993. "Simulation of impinging jet flow with a Reynolds stress model," *The 2nd ERCOFTAC-IAHR Workshop on Refined Flow Modelling*, Manchester, UK.
7. Chen, Q. 1992. "Indoor airflow, air quality, and temperature control as well as the analyses of building energy consumption," Lecture Notes, 305 pages, Industrial Technology Research Institute, Taiwan.
6. Chen, Q. 1992. "Lecture notes on indoor airflow, air quality and energy consumption of buildings", Lecture Notes, 100 pages, National Chung-Hsing University, Taiwan.
5. Moser, A., Chen, Q., Schaelin, A. and Yuan, X. 1992. "The air flow pattern ATLAS – a reference book of computed flow fields," *The 13th AIVC Conference on Ventilation for Energy Efficiency and Optimum Indoor Air Quality*, Nice, France.
4. Moser, A. and Chen, Q. 1990. "Berechnung der decipol-Verteilung als Mass der lokalen Luftqualitet in einem Buero," (in German) *Proceedings of the 6th Schweizerisches Status-Seminar Energieforschung im Hochbau*, Zurich, Switzerland.
3. Chen, Q. and Moser, A. 1990. "Numerische Ermittlung von Luftströmungen Im Einyelraum," *Proceedings of Forschungsprogramm Energierlevante Luftstroemungen in Gebäuden*, Status Seminar, pp. 21-30, Bern, Switzerland.
2. Chen, Q. 1989. "Simplification principle and data base structure: a technical note for IEA Annex 20 Research Item 1.23," *The 4th Expert Meeting of International Energy Agency Annex 20 – Air Flow Patterns within Buildings*, Lommel, Belgium.
1. Kooi, J. van der and Chen, Q. 1986. "Numerical simulation of air movement and temperature field in a room with cold and hot window surface," *EUROMECH Colloquium 207 on Natural Convection*, pp. 45-46, Delft, The Netherlands.

INVITED LECTURES

Plenary Sessions and Keynotes

40. Chen, Q. 2019. "A holistic approach to natural ventilation studies," Plenary Session Lecture, Helahy Building – Asia, Changsha, China.
39. Chen, Q. 2019. "A holistic approach to natural ventilation studies," Plenary Session Lecture, The 10th *International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings (X IAQVEC 2019)*, Bari, Italy.
38. Chen, Q. 2019. "Particulate matter, environmental control system, and passengers' health in airplane: Connecting the dots," Plenary Session Lecture, *The 9th Meeting of Indoor Environment and Health in Buildings (IEHB) and the 4th International Symposium on Bioaerosols*, Nanjing, China.
37. Chen, Q. 2018. "Looking at the future from the current situation of energy consumption in buildings in China and the United States," Keynote Lecture, *Conference on Technology Innovations for High Quality Development in Green Buildings*, Nanjing, China.

36. Chen, Q. 2018. "Inverse design of indoor environment by CFD-based optimal methods" Plenary Session Keynote Lecture, *2018 ASHRAE 3rd International Conference on Efficient Building Design*, Beirut, Lebanon.
35. Chen, Q. 2018. "Ventilation strategies and design analysis of Chinese residential buildings," Plenary Session Keynote Lecture, *The 10th Youth Technical Workshop on Green Buildings and 2018 Annual Meeting for Youth Committee of China Green Building Council, Chinese Society for Urban Studies*, Beijing, China.
34. Chen, Q. 2018. "Indoor air quality control strategies for residential buildings in China," Plenary Session Keynote Lecture, *The 4th International Conference on Building Energy and Environment (COBEE 2018)*, Melbourne, Australia.
33. Chen, Q. 2017. "Optimal design methods for the built environment" Plenary Session Keynote Lecture, *The 10th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC)*, Jinan, China.
32. Chen, Q. 2017. "From current US and China building energy use to future perspective," Plenary Session Keynote Lecture, *International Workshop on Holistic Solutions for Urban Development and Ecological Environmental Sustainability – HSUDEES*, Shijiazhuang, China.
31. Chen, Q. and Jiang, Y. 2015. "Energy use in buildings in China and USA: Past, present, and future," Plenary Session Keynote Lecture, *The 9th International Symposium on Heating, Ventilating and Air-Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, Tianjin, China.
30. Chen, Q. and Jiang, Y. 2015. "Energy use in buildings in China and USA: Past, present, and future," Plenary Session Keynote Lecture, *The 10th International Green Energy Conference*, Taichung, Taiwan.
29. Chen, Q. 2014. "Recent progresses in airliner cabin environment research," Plenary Session Holder Lecture, *The 13th International Conference on Air Distribution in Rooms (ROOMVENT 2014)*, Sao Paulo, Brazil.
28. Chen, Q. 2014. "Inverse design of enclosed environment: How far are we there?" Plenary Session Keynote Lecture, *The 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014)*, Hong Kong.
27. Chen, Q. 2014. "Simulations and validation of air environment in airliner cabins," Keynote Lecture, *International Forum of Human and Environment in Space*, Shenzhen, China.
26. Chen, Q. 2013. "Airliner cabin environment research: Challenges and opportunities," Keynote Lecture, *The 3rd International Symposium on Aircraft Airworthiness*, Toulouse, France.
25. Chen, Q. 2013. "Recent progress in airliner cabin environment research in China," Plenary Session Keynote Lecture, *The 8th International Symposium on Heating, Ventilation, and Air Conditioning, ISHVAC 2013*, Xi'an, China.
24. Chen, Q. 2013. "Simulations of enclosed space environment: State-of-the-arts and challenges," Keynote speaker, *NVERGENCE-2013 Ansys China User Conference*, Dalian, China.
23. Chen, Q. 2011. "Predictions of room air distribution: solved and unsolved problems," Plenary Session Keynote Lecture, *The 5th International Conference on Sustainable Development in Building and Environment (2011 SuDBE)*, Chongqing, China.
22. Chen, Q. 2011. "Predictions of room air distribution: solved and unsolved problems," Keynote speaker, *Building, Indoor Air, Energy and Sustainability (BIAES 2011) Workshop*, Melbourne, Vic, Australia.
21. Chen, Q. 2011. "Predictions of room air distribution: solved and unsolved problems," Plenary Session Keynote Lecture, *The 12th International Conference on Air Distribution in Rooms (ROOMVENT 2011)*, Trondheim, Norway.
20. Chen, Q. 2011. "Predictions of room air distribution: solved and unsolved problems," Keynote speaker, *Semi-Annual Workshop of Sustainable Healthy Buildings*, Seoul, Korea.
19. Chen, Q. 2010. "Sustainable urban housing in China," Plenary Session Keynote Lecture, *The 4th International Symposium on Sustainable Healthy Buildings*, Seoul, Korea.
18. Chen, Q. 2010. "Low carbon and energy efficient green buildings," Keynote Lecture, *Honeywell China Technology Symposium*, Shanghai, China.
17. Chen, Q. and Tu, J. 2009. "Modeling of person-to-person particle transmission in built environment," Keynote Lecture, *Green Tech, Eco Life, & Sustainable Architecture for Cities of Tomorrow*, Seoul, Korea.
16. Chen, Q., Lee, K., Mazumdar, K., Poussou, S., Wang, L., Wang, M., and Zhang, Z. 2009. "What is the most appropriate model for predicting ventilation performance in buildings?" Plenary Session Keynote Lecture, *The 5th International Workshop on Energy and Environment of Residential Buildings and the*

- 3rd *International Conference on Built Environment and Public Health (EERB-BEPH 2009)*, Guilin, Guangxi, China.
15. Chen, Q. 2009. "CFD for air distribution in buildings: The state of the art, challenges, and opportunities" Plenary Session Keynote Lecture, *The 11th International Conference on Air Distribution in Rooms (ROOMVENT 2009)*, Busan, Korea.
 14. Chen, Q. 2009. "What is the most appropriate model for predicting ventilation performance in buildings?" Plenary Session Keynote Lecture, *The 1st International Conference on Sustainable Healthy Buildings*, Seoul, Korea.
 13. Chen, Q. 2008. "Sustainable building design: challenges and opportunities" Keynote Speaker, *Colloquium on World Trend in Sustainable Building Development*, Beijing, China.
 12. Chen, Q. 2008. "Energy implication of sustainable building design," Plenary Session Keynote Lecture, *The 7th International Conference on Sustainable Energy Technologies*, Seoul, Korea.
 11. Chen, Q., Zhang, Z., and Zuo, W. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Plenary Session Keynote Lecture, *The 6th International Indoor Air Quality, Ventilation and Energy Conservation in Buildings Conference (IAQVEC 2007)*, Sendai, Japan.
 10. Chen, Q., Zhang, Z., and Zuo, W. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Plenary Session Keynote Lecture, *XXV Congresso Nazionale UIT sulla Trasmissione del Calore (25th UIT National Heat Transfer Conference)*, Trieste, Italy
 9. Chen, Q. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Keynote Lecture, *International Workshop on Indoor Air Quality Research in China*, Changsha, China.
 8. Chen, Q. 2007. "Challenges and opportunities in China's energy," Plenary Session Keynote Lecture, *International Energy Conference and Exhibition (IECE)*, Daegu, Korea.
 7. Chen, Q., Glicksman, L., Lin, J., and Scott, A. 2007. "Sustainable urban housing in China," Plenary Session Keynote Lecture, *The 4th International Workshop on Energy and Environment of Residential Buildings*, Harbin, China.
 6. Chen, Q. 2005. "Prediction of Indoor Airflow by Large Eddy Simulation," Keynote Lecture, *Annual Conference of Hong Kong Society of Theoretical and Applied Mechanics*, Hong Kong.
 5. Gosselin, J. and Chen, Q. 2004. "Examples of energy efficient and healthy building design in developed countries," Plenary Session Keynote Lecture, *The 3rd International Workshop on Energy and Environment of Residential Buildings*, Xi'an, China.
 4. Chen, Q. 2004. "Designing healthy, safe, and energy-efficient building," Plenary Session Keynote Lecture, *The 7th International Symposium on Building and Urban Environmental Engineering*, Tianjin, China.
 3. Chen, Q. and Zhai, Z. 2003. "How realistic is CFD as a tool for indoor environment design and studies without experiment?" Plenary Session Keynote Lecture, *The 4th International Symposium on HVAC*, Beijing, China.
 2. Chen, Q. 2003. "CFD simulation of displacement ventilation," Plenary Session Keynote Lecture, *The 7th International Symposium on Ventilation for Contaminant Control, Ventilation 2003*, Sapporo, Japan.
 1. Chen, Q. 2002. "Wind in building environment design," Plenary Session Keynote Lecture, *The 2nd International Workshop on Energy and Environment of Residential Buildings*, Shanghai, China.

Invited Seminar, Workshop and Presentations

130. Chen, Q. 2019. "Inverse design of indoor environment by CFD-based optimal methods," Department of Mechanical Engineering, Kuwait University, Kuwait City, Kuwait.
129. Chen, Q. 2019. "Particulate matter, environmental control system, and passengers' health in airplane: Connecting the dots," Department of Mechanical Engineering, Kuwait University, Kuwait City, Kuwait.
128. Chen, Q. 2019. "Inverse design of indoor environment by CFD-based optimal methods," The Sustainable Built-Environment Leaders Workshop, Yonsei University, Korea.
127. Chen, Q. 2018. "Inverse design of indoor environment by CFD-based optimal methods," School of Energy and Power Engineering, Nanjing University of Science and Technology, Nanjing, China.
126. Chen, Q. 2018. "Ventilation strategies and design analysis for Chinese residential buildings," School of Architecture, Zhejiang University, Hangzhou, China.
125. Chen, Q. 2018. "Ventilation strategies and design analysis for Chinese residential buildings," School of Energy and Power Engineering, Guangzhou University, Guangzhou, China.

124. Chen, Q. 2018. "Inverse design of indoor environment by CFD-based optimal methods," Sibley School of Mechanical and Aerospace Engineering, Cornell University, Ithaca, New York.
123. Chen, Q. 2018. "Optimal design methods for built environments," School of Architecture, Harbin Institute of Technology, Harbin, China.
122. Chen, Q. 2018. "Indoor air quality control strategies for residential buildings in China," School of Architecture, Harbin Institute of Technology, Harbin, China.
121. Chen, Q. 2018. "Indoor air quality control strategies for residential buildings in China," Vanke, Changsha, China.
120. Chen, Q. 2018. "Indoor air quality control strategies for residential buildings in China," Department of Building Science and Technology, Tsinghua University, Beijing, China.
119. Chen, Q. 2017. "Air distribution in airliner cabins," Ryerson Institute for Aerospace Design and Innovation, Ryerson University, Toronto, Canada.
118. Chen, Q. 2017. "Inverse/optimal design of the built environments," Soochow University, Suzhou, China.
117. Chen, Q. 2017. "Inverse/optimal design of the built environments," Southeast University, Nanjing, China.
116. Chen, Q. 2015. "Energy use in buildings in China and USA: Past, present, and future," The 8th E.ON ERC Annual Meeting on "Future Urban Energy Systems," Aachen, Germany.
115. Chen, Q. 2014. "Optimization of thermal environment in enclosed environments by using the adjoint method based on computational fluid dynamics," Session 10-39-1 Heat and Mass Transfer in Indoor Environment, 2014 International Mechanical Engineering Congress & Exposition (2014 IMEC&E), Montreal, Canada.
114. Chen, Q. 2014. "Summary report of the 6th International Conference on Energy and Environment of Residential Buildings," The 6th International Conference on Energy and Environment of Residential Buildings, Zhengzhou, China.
113. Chen, Q. 2014. "Evaluating models used in computational fluid dynamics for indoor environment applications," The 11th International Forum and Workshop on Combined Heat, Ai, Moisture, and Pollutant Simulations (CHAMPS), Shenzhen, China.
112. Chen, Q. 2014. "Frontier symposium on airliner cabin air environment research in China," The 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014), Hong Kong.
111. Chen, Q. 2013. "Simulations of enclosed space environment: State-of-the-arts and challenges," Faculty of Infrastructure Engineering, Dalian University of Technology, Dalian, China.
110. Chen, Q. 2013. "Simulations of enclosed space environment: State-of-the-arts and challenges," School of Human Settlement and Civil Engineering, Xi'an Jiaotong University, Shanxi, China.
109. Chen, Q. 2013. "Case studies of energy analysis in industrial buildings," School of Human Settlement and Civil Engineering, Xi'an Jiaotong University, Shanxi, China.
108. Chen, Q. 2013. "Recent studies on room air distributions," Department of Civil Engineering, Catholic University of Leuven, Leuven, Belgium.
107. Chen, Q. 2013. "Inverse design of air distribution for enclosed environment," World Summit on Building Simulation Research, Philadelphia, PA.
106. Chen, Q. 2012. "Designing natural ventilation for buildings with confidence," Building Construction Authority, Singapore.
105. Chen, Q. 2012. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Institute for High Performance Computing, Singapore.
104. Chen, Q. 2012. "Designing natural ventilation for buildings with confidence," ASHRAE Distinguished Lecture, ASHRAE Pakistan Northern Chapter, Islamabad, Pakistan.
103. Chen, Q. 2012. "Computational fluid dynamics for indoor environment modeling: past, present, and future," ASHRAE Distinguished Lecture, ASHRAE Pakistan Northern Chapter, Islamabad, Pakistan.
102. Chen, Q. 2012. "Low carbon and energy efficient green buildings," ASHRAE Distinguished Lecture, ASHRAE Pakistan Northern Chapter, Islamabad, Pakistan.
101. Chen, Q. 2012. "Computational fluid dynamics for indoor environment modeling: past, present, and future," ASHRAE Distinguished Lecture, ASHRAE Pakistan Chapter, Karachi, Pakistan.
100. Chen, Q. 2012. "Low carbon and energy efficient green buildings," ASHRAE Distinguished Lecture, ASHRAE Pakistan Chapter, Karachi, Pakistan.
99. Chen, Q. 2011. "Low carbon and energy efficient green buildings," ASHRAE Distinguished Lecture, ASHRAE Taiwan Chapter, Tainan, Taiwan.

98. Chen, Q. 2011. "Computational fluid dynamics for indoor environment modeling: past, present, and future," College of Engineering, National Cheng-Kung University, Tainan, Taiwan.
97. Chen, Q. 2011. "Challenges and opportunities in Energy Efficient Buildings," Research Forum, Hong Kong University of Science and Technology, Hong Kong, China.
96. Chen, Q. 2011. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Graduate Seminar, Department of Mechanical Engineering, Hong Kong University of Science and Technology, Hong Kong, China.
95. Chen, Q. 2011. "Low carbon and energy efficient green buildings," New Melilium Yelu Outstanding Visiting Professor Lecture, College of Civil Engineering, Hunan University, Changsha, China.
94. Chen, Q. 2011. "Predictions of room air distribution: solved and unsolved problems," School of Energy Science and Engineering, Central South University, China.
93. Chen, Q. 2011. "Sustainable and high-performance buildings: how to get there?" Tellepsen Seminar, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA.
92. Chen, Q. 2010. "Design of sustainable built environment," Tellepsen Seminar, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA.
91. Chen, Q. 2010. "Computational fluid dynamics for indoor environment modeling: past, present, and future," University of Shanghai for Science and Technology, China.
90. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," RMIT University, Melbourne, Australia.
89. Chen, Q. 2009. "Tools for energy-efficient building design," Kenninger Seminar, School of Mechanical Engineering, Purdue University, West Lafayette, IN.
88. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Engineering Master's Forum, Beijing University of Technology, China.
87. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Dalian University of Technology, China.
86. Chen, Q. 2009. "CFD tools for considering wind on building design," The 6th International Advanced School on Environmental Wind Engineering, Beijing, China.
85. Chen, Q. 2009. "Model assessment on ventilation performance prediction for buildings," The 6th International Advanced School on Environmental Wind Engineering, Beijing, China.
84. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," South China University of Technology, China.
83. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," The University of Tokyo, Japan.
82. Chen, Q. 2009. "Wind in building environment design," Kyung Hee University, Korea.
81. Chen, Q. 2009. "Wind in building environment design," Yonsei University, Seoul, Korea.
80. Chen, Q. 2009. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Donghua University, Shanghai, China.
79. Chen, Q. 2008. "Design principles of sustainable buildings," China Architectural Engineering, Shenzhen, China.
78. Chen, Q. 2008. "Computational fluid dynamics for indoor environment modeling: past, present, and future," College of Environmental Engineering and Science, Tianjin University, China.
77. Chen, Q. 2008. "Energy-efficient green buildings: benefits and barriers," ESF-NSF Workshop on the Applications of Adaptive Structures and Materials to Sustainable Energy and the Built Environment, Burgundy, France.
76. Chen, Q. 2008. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Graduate Seminar, Department of Mechanical and Aerospace Engineering, Syracuse University.
75. Chen, Q. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Department of Agricultural and Biological Engineering, University of Illinois, Urbana-Champaign, IL.
74. Chen, Q. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Distinguished Lecture Series, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin, TX.
73. Chen, Q. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," Department of Power Engineering, Southeast University, Nanjing, China.
72. Chen, Q. 2007. "Computational fluid dynamics for indoor environment modeling: past, present, and future," International Laboratory for Air Quality and Health, Queensland University of Technology,

- Brisbane, Australia.
71. Chen, Q. 2006. "Sensors and sensor network for healthy and safe enclosed environment design and analysis," Advanced Computer Systems Laboratory seminar, Purdue University, West Lafayette, Indiana.
 70. Gosselin, J. and Chen, Q. 2006. "Examples of energy efficient and healthy building design in developed countries," Tianhong Yuanfang Design Institute, Beijing, China.
 69. Chen, Q. 2006. "Computer modeling of multiscale fluid flow and heat and mass transfer in engineered spaces," Annual Meeting on Oversea Collaborative Research with the Process Engineering Institutes on Multiple Scale Models, Chinese Academy of Sciences, Beijing, China.
 68. Chen, Q. And Zhang, T. 2006. "A brief introduction to the Air Transport Center of Excellence for Airliner Cabin Environmental Research and inverse prediction of contaminant transport in enclosed environment," Tianjin University, Tianjin, China.
 67. Chen, Q. 2006. "Designing natural ventilation for buildings with confidence," Harbin Institute of Technology, Helongjiang, China.
 66. Chen, Q. 2006. "How to design healthy, safe and energy-efficient buildings," Harbin Institute of Technology, Helongjiang, China.
 65. Chen, Q., Zhai, Z., and Wang, L. 2006. "Computer modeling of multiscale fluid flow and heat and mass transfer in engineered spaces," The 3rd Annual CHAMPS Developers' Workshop, Syracuse, NY.
 64. Chen, Q. and Yang, J. 2006. "Overview of Indoor Air 2005 papers related to microbe," The 6th International Indoor Air Quality Symposium: Infectious Diseases and the Role of the IH in Preventing and Managing the Coming Epidemic, Chicago, IL.
 63. Chen, Q. 2006. "Designing healthy, safe and energy-efficient buildings," International Workshop on Computer Modeling and Design Assistance Optimization, Tsinghua University, China.
 62. Chen, Q. 2005. "Designing healthy, safe and energy-efficient buildings," School of Mechanical Engineering, Shanghai Jiaotong University, China.
 61. Chen, Q. 2005. "Emission and absorption of volatile organic compounds," International Centre for Indoor Environment and Energy, Technical University of Denmark, Denmark.
 60. Chen, Q. 2005. "How realistic is CFD as a tool for indoor environment design and studies without experiment?" International Centre for Indoor Environment and Energy, Technical University of Denmark, Denmark.
 59. Chen, Q. 2005. "Designing healthy, safe and energy-efficient buildings," International Centre for Indoor Environment and Energy, Technical University of Denmark, Denmark.
 58. Chen, Q. 2005. "Engineering Research Center for Advanced Buildings," Ove Arup & Partners, Hong Kong.
 57. Chen, Q. 2005. "Engineering Research Center for Advanced Buildings," Hong Kong City University, Hong Kong.
 56. Chen, Q. 2005. "Designing natural ventilation for buildings with confidence," Joint Technical Talk Organized by Hong Kong Institute of Engineers (Building Service Division), ASHRAE Hong Kong Chapter, CIBSE Hong Kong Branch, Hong Kong University, and Hong Kong City University, Hong Kong.
 55. Chen, Q. 2005. "Energy-efficient, sustainable, and health building design," Tiantai Group Co., Qingdao, China.
 54. Chen, Q. 2004. "FAA Center of Excellence for Airliner Cabin Environment Research," The 4th Indoor Air Quality Workshop, United Technologies Research Center, East Hartford, CT.
 53. Chen, Q. 2003. "Indoor environment modeling by computational fluid dynamics," The 3rd International Symposium on Advanced Fluid Information, AFI-2003, Syracuse, NY.
 52. Chen, Q. and Jiang, Y. 2003. "Validation of CFD simulation for natural ventilation", The First International Workshop on Natural Ventilation, Tokyo, Japan.
 51. Chen, Q. 2002. "How realistic is CFD as a tool for HVAC system design without mockup experiment?" Window of Opportunities in Virtual HVAC, CERCA, Montreal, Canada.
 50. Chen, Q. 2002. "Designing healthy, safe and energy-efficient buildings," Air Conditioning Research Center, University of Illinois at Urbana-Champaign, IL.
 49. Chen, Q. and Norford, L.K. 2002. "Green buildings," Symposium on Asia Pacific Greenland International Ecotype Residential Community, Guanzhou, China.
 48. Chen, Q. 2002. "Green buildings," J.A.O. Design International, Beijing, China.
 47. Chen, Q. 2002. "Green buildings," Department of Refrigeration and Air-Conditioning, Tianjin

- Commerce College, Tianjin, China.
46. Chen, Q. 2002. "Green buildings," School of Architecture, Tsinghua University, Beijing, China.
 45. Chen, Q. 2002. "Green buildings," Department of Building Service, Tianjin University, Tianjin, China.
 44. Chen, Q. 2002. "Designing healthy, safe and energy-efficient buildings," Department of Building Service, Tianjin University, China.
 43. Chen, Q. 2001. "Active control of indoor environment," Symposium on Indoor and Urban Environmental Systems, Syracuse, NY.
 42. Chen, Q. 2001. "Wind in building environment design," Department of Architecture, University of Michigan, Ann Arbor, MI.
 41. Chen, Q. 2001. "Designing healthy, safe and energy-efficient buildings," School of Mechanical Engineering, Purdue University, West Lafayette, IN.
 40. Chen, Q. 2001. "Modeling of indoor environment by large eddy simulation," The 1st Indoor Air Quality Workshop, United Technologies Research Center, East Hartford, CT.
 39. Chen, Q. 2001. "Healthy, energy-efficient, and sustainable buildings," Department of Mechanical, Aerospace and Manufacturing Engineering, Syracuse University, Syracuse, NY.
 38. Chen, Q. 2001. "Healthy, energy-efficient, and sustainable buildings," Department of Architectural Engineering, The Pennsylvania State University, University Park, PA.
 37. Chen, Q. 2001. "Natural ventilation: Computational fluid dynamics," Workshop on Natural Ventilation, San Diego, CA.
 36. Chen, Q. 2001. "On refrigeration and indoor climate technology," Faculty of Mechanical Engineering and Marine Technology, Delft University of Technology, The Netherlands.
 35. Chen, Q. 2001. "Computer tools for indoor and outdoor environment design," Department of Mechanical Engineering, The Hong Kong University, Hong Kong.
 34. Chen, Q. 2000. "Tools for sustainable housing design," Welsh School of Architecture, Cardiff University, U.K.
 33. Chen, Q. 2000. "Sustainable housing for China and design tools," National Cheng-Kung University, Taiwan.
 32. Chen, Q. 2000. "Designing a healthy building," Indoor Air Quality Conference, National Environmental Health Association, Denver, CO.
 31. Chen, Q. 2000. "Air quality in ice rinks," The 41st International Ice Skating Conference and Trade Show, Orlando, FL.
 30. Chen, Q. 2000. "CFD model development at MIT," CGE Workshop on Thermal and Airflow Simulation in Buildings, Lawrence Berkeley National Laboratory, CA.
 29. Chen, Q. 2000. "Applications of CFD for building research at MIT," CGE Workshop on Thermal and Airflow Simulation in Buildings, Lawrence Berkeley National Laboratory, CA.
 28. Chen, Q. 2000. "Indoor and outdoor air distribution: what is the status in building design?" United Technologies Research Center, CT.
 27. Chen, Q. 1999. "Indoor and outdoor air distribution: what is the status in building design?" Aerodyne Research, Inc., MA.
 26. Chen, Q. 1999. "Indoor environment," Department of Building Services Engineering, Tianjin University, Tianjin, China.
 25. Glicksman, L.R., Jiang, Y., and Chen, Q. 1999. "Sustainable housing for China," The World Bank, Washington DC.
 24. Chen, Q. 1998. "High performance buildings," Department of Built Environment, Royal Institute of Technology (KTH), Gavle, Sweden.
 23. Chen, Q. 1998. "High performance buildings," Xinhua University, Fujian Province, China.
 22. Chen, Q. 1998. "High performance buildings," Acer Group, Taipei, Taiwan.
 21. Chen, Q. 1998. "High performance buildings," Achilife Foundation, Taipei, Taiwan.
 20. Chen, Q. 1998. "New design approach for laboratory ventilation," Beijing Branch of the Chinese Association of Refrigeration, Beijing, China.
 19. Chen, Q. 1998. "New design approach for laboratory ventilation," Shanghai Branch of the Chinese Association of Refrigeration, Shanghai, China.
 18. Chen, Q. 1998. "New design approach for laboratory ventilation," Chinese Society of Heating, Refrigerating and Air-conditioning Engineers, Taipei, Taiwan.
 17. Chen, Q. 1998. "New tools and tricks for indoor environment studies," Environmental Health & Engineering, Newton, MA.

16. Chen, Q. 1997. "Simulation of airflow in and around buildings," Engineering & Environmental Mechanics, Department of Civil & Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA.
15. Chen, Q. 1997. "New models for indoor airflow simulation," FAGO, Eindhoven University of Technology, Eindhoven, The Netherlands.
14. Chen, Q. 1996. "The role of CFD simulation in indoor air quality and climate," International Symposium on Indoor Air Quality and Climate, Beijing, China.
13. Chen, Q. 1994. "Prediction of flows in chemical and process industry by computational fluid dynamics," Institute of Chemical Metallurgy, Academia Sinica, Beijing, China.
12. Chen, Q. 1994. "Prediction of flows in chemical and process industry by computational fluid dynamics." Workshop in Frontier and Future Research Needs in Chemical Process and Multi-phase Systems, Beijing, China.
11. Chen, Q. 1994. "Application of CFD technique for design and control of ventilation system in buildings," National University of Singapore, Singapore.
10. Chen, Q. 1992. "Indoor airflow, air quality, and temperature control as well as the analyses of building energy consumption," Tatung Corporation, Taiwan.
9. Chen, Q. 1992. "Indoor airflow, air quality and energy consumption of buildings." Society of Air-Conditioning and Refrigeration Engineers, Taiwan.
8. Chen, Q. 1992. "Indoor airflow, air quality and energy consumption of buildings," Chung-Hsing University, Taiwan.
7. Chen, Q. 1992. "Application of PHOENICS code for indoor environment," The 6th Dutch PHOENICS Users Meeting, Ijmuiden, The Netherlands.
6. Chen, Q. 1990. "An atlas for indoor airflow, air quality and thermal comfort in office rooms," Swiss National Meeting in Energy Related Project (ERL), Bern, Switzerland.
5. Chen, Q. 1990. "A database for indoor airflow, air quality and thermal comfort in buildings," Building Environment Division, National Institute of Standards and Technology, MD.
4. Chen, Q. 1990. "A database for indoor airflow, air quality and thermal comfort in buildings," Institute for Research in Construction, National Research Council Canada, Ottawa, Canada.
3. Chen, Q. 1989. "Indoor airflow, air quality, and energy consumption of buildings," Centre for Building Studies, Concordia University, Montreal, Canada.
2. Chen, Q. 1986. "Computational fluid dynamics for indoor air flows," Seminar organized by the 5th Commission of the Chinese Association of Refrigeration, Beijing, China.
1. Chen, Q. 1986. "Computational fluid dynamics for indoor air flows," Department of Thermal Energy Engineering, Tsinghua University, Beijing, China.

MEDIA AND PRESS

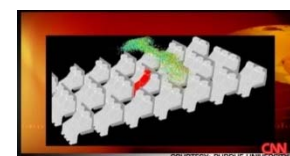
About Qingyan Chen

Chinese Central Television station channel 4 (CCTV4) reported in two episodes on "Qingyan Chen – from Farmer's Child to Scientist" in its special program "Chinese World" from 1:05 to 1:20 pm on June 21, 2012 <<http://news.cntv.cn/20120621/110464.shtml>> and June 22, 2012 <<http://news.cntv.cn/20120622/102162.shtml>>, respectively.



Pathogen Transport in an Aircraft Cabin due to Coughing

In preparing the readiness for the H1N1-A influenza in 2009, we made an animation file showing that how pathogen could be distributed in a twin-isle aircraft cabin due to coughing from a passenger sitting in the middle seat.



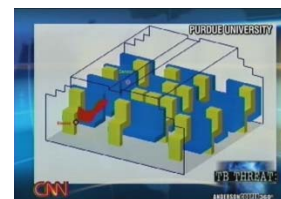
2. NBC Bay Area (KNTV) Cable channel 3, aired at 11 pm on November 21, 2009.

<http://www.nbcbayarea.com/news/local-beat/Coughs-on-a-Plane-72743442.html>

1. CNN, TV Station, aired on October 22, 2009 and November 5, 2009.
<http://www.cnn.com/video/?/video/health/2009/10/22/cohen.sneezy.travel.cnn>

Inverse Simulation of Contaminant Transport in Enclosed Environment

Purdue University released this research as a piece of news entitled “System to pinpoint airline passengers who contaminate cabins”, <http://news.uns.purdue.edu/x/2007a/070522ChenInverse.html>. It has been reported in international, national and local TV Stations, Radio Stations, Newspapers, Magazines, and about 80 websites:



11. CNN Headline News, TV station, aired between 8:00 to 9:00 PM on June 1, 2007.
10. CNN, TV station, aired on Anderson Cooper’s 360° around 5:45 AM EDT and 10:45 PM EDT, June 1, 2007 and 1:45 AM EDT on June 2, 2007.
9. Business Week, magazine, “Tracking down bugs in-flight” June 11, 2007 Issue, Page 71.
8. National Defense, magazine, “Research reveals new methods to track toxic agents aboard airliners”, July 2007 issue, Page 38-39.
7. KNX1070 Newsradio, CBS News with Jeff Levy, interviewed at 4 PM on June 9, 2007.
6. KFWB radio station, Los Angeles, interviewed on May 31, 2007.
5. WBAA radio station, Lafayette, interviewed on May 26, 2007.
4. WIBC radio station, Indianapolis, interviewed on May 24, 2007.
3. Mumbai Mirror, newspaper, Mumbai, India, “It’s in the air” May 29, 2007, Page 28.
2. Journal & Courier, newspaper, Lafayette, Indiana, “2 pairs up on biochemical device” May 28, 2007, Page B2.
1. The Exponent, newspaper, West Lafayette, Indiana, “Making air travel safer”, June 11, 2007.

SPONSORED RESEARCH PROJECTS

Extramural Funded Projects

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
65.	Recognition of building occupant behaviors from indoor environment parameters by a data mining approach (01/17-12/18)	Center for High Performance Buildings, Purdue University	PI	110,000
64.	Infiltration/exfiltration measurements by using an infrared camera (01/17-12/17)	Center for High Performance Buildings, Purdue University	PI	50,000
63.	A fast algorithm to determine explosive dispersion in enclosed environment (07/16-06/17)	Department of Homeland Security, USA	PI	30,000
62.	Developing innovative ventilation systems for aircraft cabins (08/16-08/17)	Tianjin University, China	PI	100,000
61.	Experimental evaluation of the thermal and ventilation performance of stratified air distribution systems coupled with passive beams (08/16-08/19)	ASHRAE	PI	156,236
60.	Further development of fast fluid dynamics for indoor air quality and thermal comfort study and control (01/16-12/16)	Center for High Performance Buildings, Purdue University	PI	50,000
59.	Enhancement of explosive vapor detection in shipping container (01/16-6/16)	Department of Homeland Security, USA	PI	60,000

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
58.	Impact of air pollution at Chinese airports on aircraft ECS performance and cabin environment (Phase II) (08/15-08/16)	Tianjin University, China	PI	100,000
57.	Optimization of Explosives Sensor Placement at Airports (01/15-12/15)	Department of Homeland Security, USA	PI	60,000
56.	Impact of air pollution at Chinese airports on aircraft ECS performance and cabin environment (07/14-06/15)	Tianjin University, China	PI	100,000
55.	Ozone initiated chemistry and its impact on cabin air quality (07/13-09/14)	Tianjin University, China	PI	55,618
54.	Energy efficient building systems regional innovation cluster initiative (02/13-03/14)	Department of Energy via Penn State University, USA	Co-PI	1,256,189
53.	Research at the Center for Air Cabin Reformative Environment (CARE) (08/12-05/13)	Tianjin University, China	PI	48,794
52.	Ozone initiated chemistry and its impact on cabin air quality (03/12–08/14)	Federal Aviation Administration, USA	PI	100,000
51.	Investigation of person-to-person particle transfer and risk assessment for airborne infectious disease transmission in an aircraft cabin (03/12–11/12)	Boeing Commercial Airplane Group	PI	80,000
50.	Energy efficient building systems regional innovation cluster initiative (02/12–01/13)	Department of Energy via Penn State University, USA	Co-PI	1,215,898
49.	Modeling person-to-person contaminant transport in a mechanical ventilation space (RP-1458) (01/12 –12/13)	ASHRAE	Co-PI	116,245
48.	Developing a risk paradigm for pesticides and VOC's from ozone reactions in aircrafts (05/11–08/14)	Federal Aviation Administration, USA	PI	159,995
47.	CFD-based risk assessment and mitigation of airborne disease transmission in cabins (2/11–11/11)	Boeing Commercial Airplane Group	PI	120,000
46.	Energy efficient building systems regional innovation cluster initiative (Subcontract to the Pennsylvania State University, Year 1) (02/11–01/12)	Department of Energy via Penn State University, USA	Co-PI	604,000
45.	FAA/NASA COE Project 26: Sound structural transmission – Soundproofing residential buildings in noise impacted areas near airports with ventilated windows (07/10–06/11)	Federal Aviation Administration, USA	Co-PI	85,000
44.	Reliable experimental data and CFD model validation of air distributions and contaminant transport in a commercial aircraft cabin (04/10–03/13)	Boeing Commercial Airplane Group	Co-PI	400,000
43.	Further studies of infectious disease transmission in airliner cabins (02/10–08/14)	Federal Aviation Administration, USA	PI	180,856

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
42.	Developing a risk paradigm for volatile organic compounds from ozone reactions in aircraft (02/10–01/12)	Federal Aviation Administration, USA	PI	167,434
41.	A Center for High Performance Buildings at the Ray W. Herrick Laboratories (01/10–12/14) (This is a construction grant)	National Institute of Standards & Tech., USA	Co-PI	11,750,000
40.	Establishment of design procedures to predict room airflow requirements in partially mixed room air distribution systems (RP-1522) (09/09–08/11)	ASHRAE	Co-PI	104,500
39.	Further improvements on the advanced models for predicting contaminant and infectious disease virus transport in airliner cabin environment (02/09–09/10)	Federal Aviation Administration, USA	PI	250,000
38.	Experimental and numerical study of flow and contaminant transport inside an aircraft cabin with a moving body (10/08–09/09)	National Institute of Occupational Health and Safety (NIOSH), USA	PI	20,000
37.	Measurement and simulations of outdoor contaminant dispersions around and into built environment (04/08–04/10)	National Institute of Standards & Tech., USA	PI	164,850
36.	Modeling low velocity large scale fluctuating flows in ventilated spaces at transitional Reynolds numbers (RP-1271) (09/07–09/09)	ASHRAE	PI	120,156
35.	Project 5e: Study of infectious disease transmissions in airliner cabins for ASHRAE 1262-RP (07/07–08/10)	Federal Aviation Administration, USA	PI	100,854
34.	Reliable computational models for respiratory contaminant sources released by passengers and crew in air cabins (09/07–12/10)	Boeing Commercial Airplane Group	PI	321,166
33.	Measurements and simulations of outdoor contaminant dispersions (04/07–04/08)	National Institute of Standards & Tech., USA	PI	101,243
32.	Projects 8 and 9: Decontamination and infectious disease transmission (10/06–08/10)	Federal Aviation Administration, USA	PI	306,378
31.	Air distribution effectiveness with stratified air distribution systems (RP-1373) (10/06–09/08)	ASHRAE	Co-PI	99,332
30.	Guidelines and applications of coupled CONTAM and CFD0 program (08/05–12/06)	National Institute of Standards & Tech., USA	PI	84,513
29.	The 10 th International Conference on Indoor Air Quality and Climate (Indoor Air 2005) (07/05–12/05)	Environmental Protection Agency, USA	PI	34,955
28.	Decontamination Task 3 – Materials compatibility and decontaminant delivery (05/05–04/08)	FAA via Auburn University, USA	PI	247,784
27.	FAA Center of Excellence for Airliner Cabin Environment Research, FY04-Phase I (01/05–08/10)	Federal Aviation Administration, USA	PI	1,256,189
26.	FAA Center of Excellence for Airliner Cabin Environment Research, startup (09/04–08/07)	Federal Aviation Administration, USA	PI	100,000

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
25.	Development, analysis and validation of approaches to contaminant coupling between CFD0 and CONTAM (08/04–08/05)	National Institute of Standards & Tech., USA	PI	90,618
24.	Coupling CONTAM with CFD0 for indoor air flow analysis (06/03–11/03)	National Institute of Standards & Tech., USA	PI	39,973
23.	Floor-supply displacement ventilation system (09/01–09/04)	Centers for Disease Control & Prevention, USA	PI	230,565
22.	Incorporation of nodal room heat transfer model into energy calculation procedures (RP-1222) (09/01–08/02)	ASHRAE	PI	75,000
21.	Natural ventilation, solar heating and integrated low-energy building design (02/01–01/06)	Cambridge MIT Institute	Co-PI	1,360,015
20.	Evaluation of indoor air quality in a French house (09/00–01/02)	Electricite de France	PI	92,656
19.	Implementation of a particle model into the large eddy simulation code at the Building Technology Program (07/00–06/01)	U.S. Air Force via MIT Lincoln Lab.	PI	94,820
18.	Methods of interfacing CFD programs with the EnergyPlus program (06/00–05/01)	U.S. Department of Energy via LBNL	PI	25,000
17.	How to verify, validate, and report indoor environment modeling CFD analyses (RP-1133) (04/00–03/01)	ASHRAE	PI	35,000
16.	Evaluation of FABflow Diffusers (04/00–08/00)	Chemfab, Inc.	PI	15,000
15.	Large scale demonstration of sustainable buildings For Chinese urban housing (02/00–01/02)	Alliance for Global Sustainability	Co-PI	200,000
14.	Computational fluid dynamics (CFD) modeling of ventilation in the Brant Motor Sports (BMS) enclosed NASCAR racetrack (02/00–06/00)	Baker and Associates	PI	38,718
13.	Modeling VOC sorption of building materials and its impact on indoor air quality (RP-1097) (01/00–02/02)	ASHRAE	PI	40,434
12.	Study of natural ventilation in buildings by large eddy simulation (10/99–06/03)	National Science Foundation, USA	PI	214,972
11.	Simulation and measurement of natural ventilation in buildings (08/99–01/01)	Archilife Research Foundation	PI	75,000
10.	Simulation of outdoor comfort around and displacement ventilation in the Stata building at MIT (03/99–12/00)	Frank O. Gehry & Associates, Inc.	PI	7,000
9.	Simplified diffuser boundary conditions for numerical room airflow models (RP-1009) (01/99–07/00)	ASHRAE	PI	69,825
8.	Several applications of CFD programs for air quality and comfort studies in laboratories and in ice rinks (09/98–07/00)	Landis & Staefa, Zamboni, etc	PI	26,234
7.	Energy-efficient buildings in developing countries (01/98–08/00)	Kann Rasmussen Foundation	Co-PI	300,000

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
6.	Application of displacement ventilation to Hong Kong buildings (12/97–11/98)	Hong Kong Research Grant Council	PI	10,000
5.	Sustainable buildings for the 21 st century (11/97–10/99)	Alliance for Global Sustainability	Co-PI	50,000
4.	Simplified methodology to factor room air movement and the impact of thermal comfort into design of HVAC systems (RP-927) (09/9 –12/98)	ASHRAE	PI	59,709
3.	Study of indoor air quality by large eddy simulation (07/97–06/99)	Center for Indoor Air Research	PI	60,000
2.	Performance evaluation and development of design guidelines for displacement ventilation (RP-949) (09/96–08/98)	ASHRAE	PI	113,116
1.	CAREER: Study of building material emissions and indoor air quality and innovative courses dealing with building systems (07/96–06/00)	National Science Foundation, USA	PI	310,000

Competing Intramural Funded Projects

	<i>Project title</i>	<i>Sponsor</i>	<i>Role</i>	<i>Amount (\$)</i>
6.	Determination of contaminant source location and strength by inverse modeling (06/09 – 05/10)	Purdue Research Foundation	PI	16,750
5.	Faster-than-real-time simulation of airborne contaminant transport in buildings by using graphic processing units (07/08 – 06/09)	Purdue Computing Research Institute	PI	16,375
4.	Displacement ventilation for improving indoor air quality (10/03 – 09/05)	Purdue Research Foundation	PI	27,978
3.	Green vegetation & indoor environment (07/96 – 06/97)	MIT-HASS Fund	PI	13,400
2.	Development of computational and experimental tools for some building technology courses (07/96 – 06/97)	MIT-Research Committee Fund	PI	17,000
1.	Facility for studying indoor airflow, air quality, and energy consumption in buildings (07/95 – 06/97)	MIT-Research Committee Fund	PI	100,000

TEACHING RECORD

<i>Term</i>	<i>Subject No.</i>	<i>Subject Title</i>	<i>Role</i>
2019 Spring	ME300	Thermodynamics II	Instructor
2018 Spring	ME522	Indoor Environment Analysis and Design	Instructor
2018 Spring	ME300	Thermodynamics II	Instructor
2017 Spring	ME300	Thermodynamics II	Instructor
2016 Spring	ME300	Thermodynamics II	Instructor
2016 Spring	ME522	Indoor Environment Analysis and Design	Instructor
2015 Spring	ME200	Thermodynamics I (two divisions)	Instructor
2014 Spring	ME200	Thermodynamics I	Instructor
2014 Spring	ME522	Indoor Environment Analysis and Design	Instructor
2013 Spring	ME200	Thermodynamics I (two divisions)	Instructor
2012 Spring	ME597C	Indoor Environment Analysis and Design	Instructor
2011 Spring	ME300	Thermodynamics II	Instructor
2010 Fall	TJU	Indoor Environment Analysis and Design	Instructor

<i>Term</i>	<i>Subject No.</i>	<i>Subject Title</i>	<i>Role</i>
2010 Spring	ME597C	Indoor Environment Analysis and Design	Instructor
2009 Spring	ME200	Thermodynamics I	Instructor
2008 Spring	ME300	Thermodynamics II	Instructor
2008 Spring	ME597C	Indoor Environment Analysis and Design	Instructor
2007 Fall	ME300	Thermodynamics II	Instructor
2006 Fall	ME200	Thermodynamics I (two divisions)	Instructor
2006 Spring	ME597C	Indoor Environment Analysis and Design	Instructor
2005 Spring	ME200	Thermodynamics I	Instructor
2004 Fall	ME200	Thermodynamics I	Instructor
2004 Spring	ME597C	Indoor Environment Analysis and Design	Instructor
2003 Fall	ME200	Thermodynamics I	Instructor
2003 Spring	ME200	Thermodynamics I	Instructor
2002 Fall	ME200	Thermodynamics I	Instructor
2002 Spring	4.441	Introduction to Building Structural System I	Co-Instructor
2002 Spring	4.425	Energy in Building Design	Instructor
2001 Fall	4.427J/2.46J	Analysis & Design of HVAC Systems	Instructor
2001 Fall	4.481	Building Technology Seminar	Co-Instructor
2001 Spring	4.425	Energy in Building Design	Instructor
2001 Spring	4.491	Design Workshop: Sustainable Housing for China	Co-Instructor
2000 Spring	4.424	Indoor Environment Modeling	Instructor
2000 Spring	4.425	Energy in Building Design	Instructor
2000 Spring	4.491	Design Workshop: Sustainable Housing for China	Co-Instructor
2000 Spring	B4.492	Special Problems in Building Technology	Instructor
1999 Fall	4.427J/2.46J	Analysis & Design of HVAC Systems	Instructor
1999 Fall	4.481	Building Technology Seminar	Co-Instructor
1999 Spring	4.425	Energy in Building Design	Instructor
1999 Spring	4.491	Design Workshop: Sustainable Housing for China	Co-Instructor
1998 Fall	4.184	Design Workshop: Sustainable Housing for China	Co-Instructor
1998 Fall	4.427J/2.46J	Analysis & Design of HVAC Systems	Instructor
1998 Fall	4.481	Building Technology Seminar	Co-Instructor
1998 Spring	4.425	Energy in Building Design	Instructor
1998 Spring	4.493	Indoor Environment Modeling	Instructor
1997 Winter	HUT	Modeling of Airflows and Contaminant Concentrations in Buildings	Instructor
1997 Fall	4.427J/2.46J	Analysis & Design of HVAC Systems	Instructor
1997 Fall	4.481	Building Technology Seminar	Co-Instructor
1997 Summer	Tsinghua	Modeling Industrial Turbulent Flows	Instructor
1997 Spring	4.425	Energy in Building Design	Instructor
1997 Spring	4.492	Special Problems in Building Technology	Instructor
1996 Fall	4.427J/2.46J	Analysis & Design of HVAC Systems	Instructor
1996 Fall	4.481	Building Technology Seminar	Co-Instructor
1996 Spring	4.425	Energy in Building Design	Instructor
1995 Fall	4.491/2.996	Analysis & Design of HVAC Systems	Instructor
1995 Fall	4.481	Building Technology Seminar	Co-Instructor
1995 Spring	4.425	Energy in Building Design	Instructor

THESES SUPERVISED

<i>Student</i>	<i>Title of Thesis</i>	<i>Completion Date</i>
Ph.D. Theses		
Zechao Lu*	Innovation design of a range hood	07/2022 Expected
Zhu Shi	Air distribution in a room with displacement ventilation and passive	07/2021 Expected

<i>Student</i>	<i>Title of Thesis</i>	<i>Completion Date</i>
	chilled beams	
Zhipeng Deng	Recognition of building occupant behaviors from indoor environment parameters by a data mining approach	07/2021 Expected
Xiaojie Zhou*	Studies of thermal comfort in an electrical passenger car	07/2021 Expected
Sumei Liu*	Simulations of built environment around buildings	07/2020 Expected
Xingwang Zhao*	Inverse modeling and design of the air distribution in building environment	07/2020 Expected
Qing Cao*	Study of particle deposition in the environmental control system and cabin of commercial airplanes	07/2019
Ruoyu You	Investigating air distribution and contaminant transport in commercial aircraft cabins <u>Currently Assistant Professor at Hong Kong Polytechnic University, China</u>	08/2018
Wei Liu	Inverse design of enclosed environment by CFD-based adjoint method <u>Currently Assistant Professor at the Institute of Zhejiang University-University of Illinois at Urbana-Champaign, Zhejiang University, China</u>	08/2017
Zhuangbo Feng*	Experimental and numerical study on the performance of hybrid electrostatic air filtration system (in Chinese) <u>Currently Lecturer at Soochow University, China</u>	07/2017
Dayi Lai	Outdoor thermal environment in residential communities <u>Currently Assistant Professor at Shanghai Jiao Tong University, China</u>	05/2017
Jie Zhang*	Exposure assessment and removal mechanism development for oil-coated particles in machining factories	01/2017
Hao Zhou*	Methods research on occupant-behavior recognition from data of environmental parameters in buildings (in Chinese)	07/2016
Yu Xue*	Research on inverse problems of air quality in human living environment with genetic algorithm and adjoint method (in Chinese) <u>Currently Lecturer at Dalian University of Technology, China</u>	07/2016
Chaobin Zhou*	Impact of natural ventilation on indoor air quality in high-rise apartments (in Chinese)	07/2016
Xiaodong Cao*	Experimental study of the airflow characteristics in a passenger aircraft cabin mockup with 2D-PIV (in Chinese)	12/2015
Haojie Wang	Modeling on single-sided wind-driven natural ventilation	05/2015
Chun Chen	Modeling person-to-person contaminant transport in enclosed environments <u>Currently Assistant Professor at Chinese University of Hong Kong, China</u>	05/2015
Aakash Rai	Ozone initiated chemistry and its impact on indoor air quality <u>Currently Assistant Professor at Birla Institute of Technology & Science (BITS) Pilani, India</u>	05/2014
Mingang Jin	Building airflow simulations with fast fluid dynamics	05/2014

<i>Student</i>	<i>Title of Thesis</i>	<i>Completion Date</i>
Kisup Lee	Air distribution effectiveness and thermal stratification with stratified air distribution systems	12/2011
Jingshu Wei*	Performance evaluation and optimization of a dual-airflow window	07/2011
Miao Wang	Modeling airflow and contaminant transport in enclosed spaces with advanced models	05/2011
Jitendra Gupta	Respiratory exhalations/inhalations models and infection transmission predictions in aircraft cabins	12/2010
Wangda Zuo	Advanced simulations of air distributions in buildings <u>Currently Associate Professor at the University of Colorado, Boulder, CO, USA</u>	05/2010
Sagnik Mazumdar	Transmission of airborne contaminants in airliner cabins	12/2009
Roberto Fuliotto*	Experimental and numerical analysis of heat transfer and airflow on an interactive building façade	03/2008
Zhao Zhang	Modeling of airflow and contaminant transport in enclosed environments	12/2007
Tengfei Zhang	Detection and mitigation of contaminant transport in commercial aircraft cabins <u>Currently Professor at Tianjin University and Dalian University of Technology, China</u>	05/2007
Liangzhu Wang	Coupling of multizone and CFD programs for building airflow distribution and contaminant transport simulations <u>Currently Associate Professor at Concordia University, Canada</u>	05/2007
Zhiqiang Zhai	Developing an integrated building design tool by coupling building energy simulation and computational fluid dynamics programs <u>Currently Professor at the University of Colorado, Boulder, CO, USA</u>	09/2003
Yi Jiang	Study of natural ventilation in buildings by large-eddy simulation	06/2002
Jelena Srebric	Simplified methodology for indoor environment design <u>Currently Professor at the University of Maryland, College Park, MD, USA</u>	09/2000
Xudong Yang	Study of building material emissions and indoor air quality <u>Currently Changjiang Professor at Tsinghua University, China</u>	09/1999
Weiran Xu	New turbulence models for indoor airflow simulation	06/1998
M.Sc. and M.Eng. Theses		
Xuan Li	Control of thermal environment in buildings by artificial intelligence	5/2020 Expected
Guangqiong Wei*	Study of particle dispersion in a paint workshop	1/2020 Expected
Shiyu Zhang*	Ventilation performance of kitchen hood	1/2020 Expected
Qiuyu Xu*	Impact of air pollution at airports on aircraft ECS performance	1/2017
Ying Zou*	Comparison between STAR-CCM+ and ANSYS Fluent in simulating airflow in enclosed spaces	1/2017
Shengmin Cao*	Air tightness research of building windows in north China cold area	1/2017
Haisheng Yin*	The research of coupling the environmental control system with air	12/2015

<i>Student</i>	<i>Title of Thesis</i>	<i>Completion Date</i>
	thermal environment in an aircraft cabin	
Yudi Liu*	Experimental measurement and numerical modeling of particle deposition in the environmental control systems of commercial airliners	12/2015
Yue Zhang*	Evaluation of different air distribution systems for sleeping spaces in transport vehicles	12/2015
Zhu Shi*	Numerical simulation and characterization of jet flows in indoor environments	05/2015
Ran Duan*	Strategy of mesh choice in numerical simulation in predicting air distribution in an aircraft cabin	12/2014
Yan Huang*	A method to optimize sampling locations for measuring air environment in aircraft cabin	12/2014
Wei Liu	Experimental and Numerical study of the air distribution in a functional aircraft cabin	05/2014
Yan Xue	Determination of heat transfer in under-floor plenum in buildings with under-floor air distribution systems	12/2013
Xu Han*	Performance and kinetic model of thermal-catalytic oxidization technology for Indoor Formaldehyde Removal	12/2013
Dayi Lai*	Outdoor thermal comfort in northern China	12/2012
Jiangyue Chao*	Validation and application of a multi-zone model for studying contaminant distribution in the aircraft cabins	12/2012
Xuan Mu*	Ventilation rate measurements in a large, long-narrow space	12/2011
Guangqing Xue	Advanced design method for underfloor air distribution systems	12/2011
Xi Chen	A numerical study on decontaminating unoccupied airliner cabins	08/2007
Jenifer Gosselin	A ventilated window for indoor air quality improvement in residential buildings	08/2006
Josephine Lau	The performance of floor-supply displacement ventilation in workshop configurations with measurements and simulation studies	08/2005
Zhao Zhang	A study on transport and distribution of indoor particulate matter	05/2005
Erik Olsen	Performance comparison of U.K. low-energy cooling systems by energy simulation	06/2002
Brent Griffith	Incorporation nodal and zonal room air models into building energy calculation procedures	06/2002
Yang Gao	Coupling of a multizone airflow simulation program with computational fluid dynamics for indoor environmental analysis	06/2002
Jinsong Zhang	Modeling VOC sorption of building materials and its impact on indoor air quality	06/2001
Jeffery Huang	Modeling contaminant exposure in a single-family house	06/2001
Nobukazu Kobayashi	Floor-supply displacement ventilation system	06/2001
Camille Allocca*	Single-sided natural ventilation: design analysis and general guidelines	06/2001

<i>Student</i>	<i>Title of Thesis</i>	<i>Completion Date</i>
Charles Broderick	A common interface for indoor environment simulation	06/2000
Guilherme Carrilho-da-Graca	Ventilative cooling	06/1999
Shiping Hu	Energy and first costs analysis of displacement and mixing ventilation systems for U. S. buildings and climates	02/1999
Chalermwat Tantasavasdi	Natural ventilation: design for suburban house in Thailand	06/1998

*Chen is a co-supervisor.

POST-DOCTORAL ASSOCIATES SPONSORED

<i>Name</i>	<i>Research Topic</i>	<i>Beginning</i>	<i>Ending</i>
C. Chen	Particle deposition near air supply diffusers	07/2015	06/2016
Z. Jiang	Energy efficiency buildings	11/2010	04/2011
T. Zhang	Experimental measurements of flow features in airliner cabin environment	05/2007	08/2007
L. Wang	Measurements and simulations of outdoor contaminant dispersions around and into built environment	04/2007	07/2010
S.-C. Lee	Incorporation of nodal room heat transfer model into energy calculation procedures	04/2001	01/2002
M. Su	Simulation and measurement of natural ventilation in buildings	08/1999	04/2001
W. Zhang	Study of indoor air quality by large eddy simulation	07/1997	06/1999
X. Yuan	Development of design guidelines for displacement ventilation	11/1996	04/1998

VISITING SCHOLARS/STUDENTS SPONSORED

Kong, W., Tianjin University, China, 2018-2018
Dong, J., Harbin Institute of Technology, China, 2017-2018
Twan van Hooff, Eindhoven University of Technology, The Netherlands, 2015-2015
Chen Zhang, Aalborg University, Denmark, 2015-2015
Dang, Y., Xi'an University of Architecture and Science, China, 2014-2015
Zheng, L., China Ship Development and Design Center, China, 2013-2014
Testa, S., The University of Padua, Italy, 2010-2011
Tu, Y., Yanshan University, China, 2010-2010
Liu, H., Chongqing University, China, 2010-2010
Sun, H., Tianjin University, China, 2009-2010
Kang, Y., Donghua University, China, 2009-2010
Yao, Y., Shanghai Jiaotong University, China, 2009-2010
Li, A., Xi'an University of Architecture and Technology, China, 2009-2009
Hu, J., Central South University, China, 2008-2010
Suzuki, Y. Musashi Institute of Technology, Japan, 2008-2009
Yin, Y. Southeast University, China, 2007-2009
Jiao, W., Harbin Institute of Technology, China, 2007-2007
Liu, W., Nanjing University of Aeronautics and Astronautics, China, 2006-2007
Yang, J., Tongji University, China, 2006-2006
Zhao, J., Harbin Institute of Technology, China, 2006-2006
Yong, J., Hoseo University, Korea, 2001-2001

Holmberg, S., Royal Institute of Technology, Stockholm, Sweden, 2000-2000
Yang, C., Beijing University of Aeronautics and Astronautics, China, 1999-2000
Liu, J., Tianjin University, China, 1999-2000
Chao, N.-T., National Cheng-Kung University, Taiwan, 1996-1996

MAJOR AWARDS RECEIVED BY CHEN'S STUDENTS

Liu, W., Best Paper Award, Roomvent and Ventilation 2018 Conference, Helsinki, Finland, 2018.
You, R., Bilsland Dissertation Fellowship, School of Mechanical Engineering, Purdue University (\$20,000 stipend plus tuition and medical insurance), 2017.
Lu, Z., Ross Fellowship, School of Mechanical Engineering, Purdue University (\$20,000 stipend plus tuition and medical insurance), 2017.
Shi, Z. Andrew Fellowship, School of Mechanical Engineering, Purdue University (2 years of support, \$20,000/year stipend with medical insurance), 2017.
Liu, W., Bilsland Dissertation Fellowship, School of Mechanical Engineering, Purdue University (\$19,000 plus tuition), 2016.
Chen, C., Best Student Paper Award, The 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014).
Chen, C., Bilsland Dissertation Fellowship, School of Mechanical Engineering, Purdue University (\$18,500 plus tuition), 2014.
Wang, H., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2014.
You, R., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2014.
Feng, Z. Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2014.
Lai, D., Ross Fellowship, School of Mechanical Engineering, Purdue University (\$59,423), 2013.
Xue, Y., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2013.
Rai, A., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2013.
Chen, C., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2013.
Liu, W., First Prize, "CFD Shootout Contest - Prediction of Duct Fitting Losses: ASHRAE 1493-RP, 2012.
Jin, M., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2012.
Liu, W., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2011.
Lee, K.S., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2011.
Jin, M., Ross Fellowship, School of Mechanical Engineering, Purdue University (\$50,205), 2010.
Mu, X., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2010.
Gupta, J.K., Life Member Club Award and Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2010.
Zuo, W., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2009.
Zuo, W., Best Poster Award (\$2,000), International Building Performance Simulation Association – USA Branch (IBPSA-USA) Winter Meeting, Chicago, Illinois, USA, 2009.
Zuo, W., Scholarship (\$500), IBPSA-USA SimBuild 2008.
Mazumdar, S., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2008
Zhang, T., Dimitris N. Chorafas Foundation Award for his research in "Detection and mitigation of contaminant transport in commercial aircraft cabins" (\$4,000), 2007.
Zhang, Z., Bilsland Dissertation Fellowship (\$18,000), Purdue University, 2007
Zhang, Z., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2007
Gosselin, J.R., Graduate Student Fellowship, National Science Foundation, 2005
Mazumdar, S., Ross Doctoral Assistantship, School of Mechanical Engineering, Purdue University, 2005
Gosselin, J.R., Grant-in-Aid Award for Graduate Students (\$10,000), ASHRAE, 2005
Lian, C., ASHRAE Carrier Fellowship, 2004
Gosselin, J.R., Helen and John Lozar Assistantship, School of Mechanical Engineering, Purdue University, 2003
Zhang, J., Building Systems Technology Research Grant (\$7,500), The Skidmore, Owings & Merrill (SOM) Foundation, 2003
Zhang, Z., ASHRAE Carrier Fellowship, 2003
Srebric, J., Best Poster Presentation Award, ASHRAE, 2002
Griffith, B.T., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 2001
Kobayashi, N., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 2001

Zhai, Z., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 2001
Srebric, J., Homer Addams Award, ASHRAE, 2001
Jiang, Y., Avalon Travel Grant, MIT, 2001
Zhai, Z., Grant Martin Society of Graduate Fellows for Sustainability, MIT, 2000
Zhang, J., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 2000
Srebric, J., Best Poster Presentation Award, ASHRAE, 2000
Yuan, X., Best Paper Award, ASHRAE, 2000
Srebric, J., Scholarship for a recipient with exemplary grades and leadership potential (\$5,000), Nicolitch Trust, 1999
Jiang, Y., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 1998
Yang, X., Martin Society of Graduate Fellows for Sustainability, MIT, 1999
Srebric, J., Avalon Travel Grant, MIT, 1999
Srebric, J., Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 1998
Yang, X., Life Member Club Award and Grant-in-Aid Award for Graduate Students (\$7,500), ASHRAE, 1998
Xu, W., Hyzen Prize (\$20,000), MIT, 1997