Short Brief CV - Professor Yuguo Li

Yuguo Li joined the Department of Mechanical Engineering, the University of Hong Kong in 2000 as Associate Professor and became a Professor in 2006. He studied at Shanghai Jiaotong University and Tsinghua University for B.Sc. and M.Sc., and received his PhD in fluid mechanics from the Royal Institute of Technology in Stockholm in 1992.

Li was a Principal Research Scientist with CSIRO Australia. Between 1997 and 2000, Li led and managed CSIRO's research team into ventilation and indoor environments. His research interests are in the interface areas between indoor environment and thermo-fluid dynamics with a focus on ventilation. His current research topics include bioaerosols, engineering control of infectious diseases, natural ventilation and flow bifurcation, recently on city ventilation and heat island phenomena. He has actively acted as consultants to both governments and industry in Australia, Hong Kong and China. He is appointed as a member in the Working Group on Disease Modelling at Department of Health. He carried out research on hospital ventilation in preparation for the influenza pandemic for Hospital Authority and drafted/drafting a WHO publication on natural ventilation for health care facilities and a ventilation chapter in the new WHO infection control guidelines. He also assisted the Ministry of Agriculture, China in developing strategies on rural home energy efficiency and the future for Chinese kangs.

He contributed to new natural ventilation and isolation room ventilation theory and technologies. His work led to the findings of the roles played by airflow and ventilation in the 2003 Amoy Gardens SARS outbreak in Hong Kong. He publishes over 80 journal articles including in top engineering and medical journals such as Indoor Air and New England Journal of Medicine with over 350 SCI citations (by May 2007), and over 110 conference papers.

He was guest/adjunct/visiting professor in Shanghai Jiaotong University (1999-01), Aalborg University (Denmark, 2002-2005), Hunan University (2003-06), Dalian University of Science and Technology (2004-06), and currently at Central South University (2007-12) and Xian University of Architecture and Technology (2007-09).

Li serves as an Associate Editor of Indoor Air - the top journal (SCI ranking) in building and construction and as Editorial Board member in four other international journals – Energy and Buildings, Indoor and Built Environment, International Journal of Ventilation and Journal of the IEST (2003-2006). He also serves as an Honorary Theme Editor for the Building Services Engineering theme in the UNESCO-Encyclopedia of Life Support Systems (EOLSS) (2006-). He serves in scientific advisory committees in 20 conferences such as Roomvent, Healthy Buildings and Indoor Air etc and gave plenary and invited talks in 20 conferences on topics ranging from natural ventilation, ventilation control of airborne diseases to Chinese kangs.

He received the HKU Outstanding Young Researcher Award in 2003 and became an ASHRAE Fellow in 2007.

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June 1, 2007

2-Page Brief Curriculum Vitae – Prof. Yuguo Li

Yuguo Li, Ph.D., Professor
Department of Mechanical Engineering
The University of Hong Kong, HKSAR

Phone: (852) 2816 2625
Fax: (852) 2858 5415
Email: liyg@hku.hk

Education

Year	Degree	Institution
1982	B.S. in Refrigeration Engineering	Shanghai Jiaotong (China)
1990	M.Sc. (passed, not awarded)	Tsinghua University (China)
1990	Tech. Licentiate in Heating and Ventilation	Royal Institute of Technology (Sweden)
1992	Ph.D. in Fluid Mechanics	Royal Institute of Technology (Sweden)

Employment

Period	Employer	Position
2006-	The University of Hong Kong	Professor
2005-2005	The University of Hong Kong	Associate Professor (Senior Lecturer) (Tenured)
2000-2004	The University of Hong Kong	Associate Professor (Lecturer)
2000	CSIRO, Australia	Principal Research Scientist
1997-2000	CSIRO, Australia	Senior Research Scientist
1994-1997	CSIRO, Australia	Research Scientist
1993-1994	CSIRO, Australia	Post-doc Scientist
1992-1993	National Institute of Occupational Health, Sweden	Researcher
1991-1992	Swedish Institute for Building Research, Sweden	Guest Researcher

Awards Received

Award	Year
The Outstanding Young Researcher Award of University of Hong Kong	2003
Fellow, American Society of Heating, Refrigerating and Air-conditioning Engineers	2007

Research Grants since 2000

Total as PI (2000-2006): HK$6.4 million (6 RGC Grants) Total as CI (2000-2006): HK$3.7 million

Year of Award	Funding Source	Amount (HK$)	Year of Award	Funding Source	Amount (HK$)
2007	RGC, PI	$970,000	2002	**RGC**, PI	$711,404
2006	**RGC**, PI	$884,850	2002	UGC-TDG, one of 3 PIs	$3,335,000
2006	CRCG, PI	$120,000	2001	**RGC**, PI	$470,000
2005	**RGC**, PI	$350,000	2005	RGC/Germany, PI	$40,600
2004	**RGC**, PI	$380,074	2001	ACRA, PI	$40,000
2004	RFCID, PI	$798,360	2001	TDG, PI	$220,000
2004	RFCID, PI	$731,824	2001	CRCG, PI	$120,000
2003	RGC/Germany, PI	$56,600	2001	ASD HK Gov, CI,	$150,000
2003	HKU, PI	$300,000	2001	AET Ltd., PI	$100,00
2003	HKU SARS Fund, CI	$180,000	2000	CRCG, PI	$120,000

Scientific Activities

Associate Editor, Indoor Air, 2007-
Editorial Board Member, Energy and Buildings, 2006-2009, Indoor & Built Environment, 2005-, Indoor Air, 2005-2006
Editorial Board Member, Journal of the IEST, 2003-2006
Invited Overseas Editorial Board Member, Building Energy and Environment, 2003-
Editorial Board Member (founding), International Journal of Ventilation, 2002-present
Guest Editor for the Special Issue on Engineering Control of Respiratory Infectious Diseases, HKIE Transactions, March 2005, and Indoor Air 2005 special issue of HVAC&R Research, 2006
Honorary Theme Editor, UNESCO-Encyclopedia of Life Support Systems (EOLSS), 2006-

June 1, 2007

Dr Li served as member of scientific advisory committee in >20 international conferences including Indoor Air, Healthy Buildings and Roomvent and gave >20 invited/keynote speeches/papers in international/national conferences since 2000. He serves as a reviewer for Journal of Computational Physics, Building and Environment, Indoor Air, American Journal of Epidemiology, International Journal of Heat and Mass Transfer, Journal of Fluid Mechanics, HVAC&R Research, Journal of Infectious Diseases etc.

Teaching

Studied problem-based teaching and learning methods, and initiated and implemented the inter-disciplinary BSE design projects in 2001 at the Department.
Teach mechanical engineering subjects in building services at both undergraduate and postgraduate levels.
Currently supervised 5 PhD students, 3 MPhil students, 1 co- PhD graduated , 2 MPhil graduated
Supervised 3 out of all 5 ASHRAE HK diamond award FYP students since 2000.

Administration and Community Services

Coordinator, B.Eng. Mechanical Engineering (Building Services Engineering) Programme, 2003-
Faculty of Engineering Representative on the Board of Academic Awards, HKU, 2003-2005, 2005-2007
Member, Faculty MSc (BSE) Programme Committee, 2002-
Member, Departmental Research Committee, 2002-
Member, Department Research Postgraduate Committee, 2003-
Member, Department Advisory Committee, 2003-2004, 2004-2005
Chair, Task Force on Airborne transmission of infectious diseases in buildings, ISIAQ, 2006-
Advisor (founding), ASHRAE HKU Student Branch, 2002-
Chair, Technical Working Group on Ventilation and Health, ASHRAE HK Chapter, 2004-present
Chair, Chapter Technology Transfer Committee, ASHRAE HK Chapter, 2004-05, 2005-06
Member, Working Group on Disease Modelling, Centre for Health Protection, Department of Health, 2005-

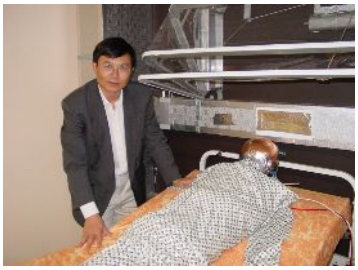
Summary of Publications

Journal	Impact factor (ISI, 2003)	No. of papers	No. SCI Citations (by Sept 2007)
New England Journal of Medicine	**34.83**	2 (inc. reply)	94
Clinical Infectious Diseases	**5.393**	1	12
Emerging Infectious Diseases	**5.340**	1	34
American Journal of Epidemiology	**4.486**	1	9
Applied Microbiology and Biotech.	**2.034**	1	0
Atmospheric Environment	**2.338**	1	1
Indoor Air	**2.035**	8	37
Journal of Hospital Infection	**1.823**	1	2
Journal of Computational Physics	**1.762**	1	17
Chemical Engineering Science	**1.562**	2	20
Int J Heat Mass Transfer	**1.293**	4	20
Solar Energy	**1.108**	1	5
Int J of Bifurcation and Chaos	**1.104**	1	0
Numerical Heat Transfer, Pt B	**1.052**	2	18
Drying Technology	**0.820**	1	3
Environ. Modelling & Software	0.780	1	6
HVAC&R Research	0.755	2	1
Fire Safety Journal	0.610	1	1
Int J Num Methods Fluids	0.584	1	6
Indoor and Built Environment	0.525	3	0
Energy and Buildings	0.513	2	13
Building and Environment	0.427	13	72
Applied Mathematical Modelling	0.403	1	2
J. Wind Eng and Ind Aerodynamics	0.403	1	0
International Journal of Ventilation		6	n.a.
Others		22	2
No. of journal papers		**82**	

No. of conference papers		**112**	**Total SCI citations**
Total		**193**	**415**

CURRICULUM VITAE Professor Yuguo Li

PERSONAL DETAILS



Name	Yuguo Li
Office Address	Department of Mechanical Engineering The University of Hong Kong Pokfulam, Hong Kong Tel: +852 2959 2625, Fax: +852 2858 5415. Email: liyg@hku.hk
Date and place of Birth	21 May, 1963, Liaoning, China
Marital Status	Married with 2 children
Nationality	Australian

EMPLOYMENT HISTORY

01/2006-present

Professor – Building Services Engineering
Department of Mechanical Engineering
The University of Hong Kong
Head of Department, Prof ST Tan

- Develop an active research program in the interface area of thermo-fluid dynamics, building environment, building energy and health.
- Others are the same as below.

01/2005-12/2005

Associate Professor (Senior Lecturer) (Tenured) – Building Services Engineering
Department of Mechanical Engineering
The University of Hong Kong
Head of Department, Prof ST Tan

- Develop an active research program in the interface area of thermo-fluid dynamics, indoor/outdoor environment, building energy and health.
- Others are the same as below.

9/2000-12/2005

Associate Professor (Lecturer) – Building Services Engineering
Department of Mechanical Engineering
The University of Hong Kong
Head of Department, Prof. Brian Duggan (2000-01), Prof ST Tan (2001-2005)

- Develop an active research program in the interface area of thermo-fluid dynamics, indoor environment, building energy efficiency and health;
- Programme Coordinator of B.Eng. Mechanical Engineering (Building Services Engineering) which was launched in August 2001;
- Supervise PhD and MPhil students;

- Lecture B.Eng. and M.Sc. courses such as indoor pollution, air conditioning and refrigeration, utility services, fire protection and smoke control, inter-disciplinary design of building services, network modelling, environmental services etc;
- Apply for government and industry funded research projects;
- Research areas include indoor air quality, architectural fluid dynamics and transport phenomena, natural ventilation, dynamical phenomena such as bifurcations in internal flows, transmission and control of respiratory diseases in buildings, building energy efficiency etc.

7/2000-8/2000

Principal Research Scientist
Team Leader – Indoor Environments
Thermal and Fluid Engineering
CSIRO Building Construction and Engineering, Australia
Supervisor: Mr Larry Little, Chief of Division

- Leadership and management of a new project team of 8 scientists and 2 technical staff in building ventilation, energy efficiency and indoor air quality, which was established from two previous project teams on ventilation and heat dispersion technologies and indoor air quality;
- Other duties same as in 1997-2000.
- Main contribution was in planning the research strategy and areas for the research team, but left for Hong Kong soon after the team was established.

7/1997-6/2000

Senior Research Scientist
Team Leader Ventilation and Heat Dispersion Technologies
Thermal and Fluid Engineering
CSIRO Building Construction and Engineering, Australia
Supervisor: Dr Jeff Symons, Deputy Chief of Division

- Leadership and management of a group of 6 scientists and 2 technical staff in building ventilation;
- Bidding for and managing external funded contracts and marketing his group research;
- Leading and supervising development of the CSIRO ventilation and indoor air quality laboratory.
- Leader, Subtask B, International Energy Agency Annex 35 project on hybrid ventilation with 15 participating countries;
- Research areas of his laboratory include energy efficiency, hybrid air-conditioning, passive tracer gas technique, displacement ventilation, ventilation efficiency, porous storage, Web-based design tools, indoor air quality, indoor/outdoor linking, application of FLUENT and CFX for industry fluid flow problems;
- Co-development of theory and analysis tools for ventilation and thermal performance of naturally ventilated buildings, CHEMIX;
- Further development of his CFD package Ventair for building service engineering;
- Development of a new research area in food storage and food processing;

- Co-supervising 2 PhD students and 3 MSc students in ventilation and porous flows;
- Bid and work on consultancy projects for the building industry.

7/1994-6/1997

Research Scientist (Permanent position)
Advanced Thermal Technologies Laboratory
CSIRO Building Construction and Engineering, Australia
Supervisor: Dr Jeff Symons, Project Leader

- Collaborative research commitments for industry and government sponsors;
- Joint development of a multi-zone natural ventilation package CHEMIX;
- Development of higher-order schemes for computational fluid dynamics;
- Consultancy projects for the building industry.
- Application of CFD for two-phase flows in mineral industry;
- Research for industrial ventilation of mineral buildings;
- Air distribution in large enclosures;
- Development of new capature efficiency of kitchen range hoods;
- Flows in air-conditioning ducts and bends.

2/1993-6/1994

Post-doctoral Research Fellow
Advanced Thermal Technologies Laboratory
CSIRO Building Construction and Engineering, Australia
Supervisors: Dr Angelo Delsante and Dr Jeff Symons

- Assisting the establishment of the new research team of building ventilation in CSIRO;
- Application of CFD and thermal analysis (BUNYIP) for displacement ventilation in Brisbane;
- Flux-corrected transport schemes for computational fluid dynamics;
- Development of non-isotropic local grid refinement for turbulent flows.
- Consultancy projects for the building industry.

11/1992-1/1993

Researcher (Three Months)
National Institute of Occupational Health, Stockholm, Sweden
Supervisor: Dr Sture Holmberg

- Application of CFD in ventilation airflow with small openings.

10/1991-2/1992

Guest Researcher
Swedish Institute for Building Research (SIB), Gavle, Sweden
Supervisor: Prof. Mats Sandberg

- Measurement of temperature fields and turbulent flows in a full-scale room with displacement ventilation and with and without radiation effects.

2/1990-10/1992

Research Engineer (except 10/1991-2/1992)
Department of Mechanics, School of Physics
Royal Institute of Technology (KTH), Stockholm, Sweden
Supervisor: Prof. Laszlo Fuchs

- This position combined his PhD thesis work as a part of a Building Research Council Grant to develop CFD tools for displacement ventilation and combining radiative and convective heat transfer.

EDUCATION BACKGROUND

1990-1992

Ph.D. in Fluid Mechanics, 1992
Department of Mechanics, School of Physics
Royal Institute of Technology (KTH), Stockholm, Sweden
Supervisor: Prof. Laslo Fuchs with co-advisors Prof. Mats Sandberg and Dr Sture Holmberg

- Showed experimentally and numerically for the first time that why and how radiation affects were significant in displacement ventilation;
- One of the first studies of applying a multi-grid method in turbulence flows;
- Developed a new multi-node model for displacement ventilation;
- Developed three CFD methods for air change efficiency calculation;
- Developed two CFD programs, Ventair1 and Ventair2;
- Measured data have been widely cited and used since 1993.

1988-1989

Tech. Lic in Heating and Ventilation, 1990
Department of Heating and Ventilation, School of Mechanical Engineering
Royal Institute of Technology (KTH), Stockholm, Sweden
Supervisor: Prof. Folke Peterson

- Developed MIX, one of the first multi-zone infiltration models considering large openings;
- Applied MIX to a wide range of indoor air quality and ventilation problems.

1986-1988

M.Sc. Course in Thermal Engineering (Air conditioning) (defended in May 1989 and passed, but not awarded), 1989
Department of Thermal Engineering
Tsinghua University, Beijing, China
Supervisor: Prof. Xue Dianhua

- Numerical and experimental study of heat transfer and two-phase flows of direct expansion coils, MSc Thesis.

1982-1986

B.Sc. in Refrigeration Engineering, 1986
Department of Power Machinery Engineering
Shanghai Jiaotong University, Shanghai, China

- Simulation of dynamic behaviour of a small refrigeration system, BSc Thesis.

TEACHING

Lecturing

2000-2001 Mechanical Engineering, The University of Hong Kong
- B. Eng. Year 3 course: Building Services - covering air conditioning and refrigeration.
- M.Sc. course: Utility Services – covering cold/hot water supply, steam and hot water, drainage
- M.Sc. course: Indoor Pollution

2001-2002 Mechanical Engineering, The University of Hong Kong
- B.Eng. Year 3 course: Building Services - covering air conditioning and refrigeration, water supply, drainage and fire protection
- B.Eng. Year 3 course: Coordinator and tutor, Interdisciplinary Building Services Design*
- MSc. course: Environmental Services II
- MSc, course: Environmental Services I.

Department of Architecture, The University of Hong Kong
Sustainability Consultant, Architecture design studio.

2002-2003 Mechanical Engineering, The University of Hong Kong
- B.Eng. Year 3 courses: Building Services - covering air conditioning and refrigeration, water supply, drainage and fire protection
  Interdisciplinary Building Services Design*
- B.Eng. Year 2 course: Utility Services
- MSc. Course: Indoor Air Quality*
- Broadening course: Sustainability in Built Environment*

Department of Architecture, The University of Hong Kong
Sustainability Consultant, Architecture design studio.
Director of Studies, Master of Inter-disciplinary Design and Management

2003-2004 Mechanical Engineering, The University of Hong Kong
- B.Eng. Year 3 courses: Building Services - covering water supply, drainage and fire protection
  Interdisciplinary Building Services Design*
- B.Eng. Year 2 course: Utility Services

MSc. Course: Built Environment, Natural and Hybrid Ventilation of Buildings*
Broadening courses: Sustainability in Built Environment*
Indoor and Outdoor Air Quality*
Department of Architecture, The University of Hong Kong
Director of Studies, Master of Inter-disciplinary Design and Management

*) Involved (20-100%) in the development of the course.

2004-2005 Mechanical Engineering, The University of Hong Kong
B.Eng. Year 3 courses: Building Services - covering water supply, drainage and fire protection
Interdisciplinary Building Services Design
B.Eng. Year 2 course: Utility Services, Fire protection engineering
MSc. Course: Indoor air quality
Department of Architecture, The University of Hong Kong
Director of Studies, Master of Inter-disciplinary Design and Management

2005-2006 Mechanical Engineering, The University of Hong Kong
B.Eng. Year 3 courses: Building Services - covering water supply, drainage and fire protection
Interdisciplinary Building Services Design
B.Eng. Year 2 course: Utility Services, Fire protection engineering
MSc. Course: Built Environment

Dr Li has also contributed voluntarily to teaching at other departments and universities:

- Sustainability consultant, Architecture Design Studio, Department of Architecture, HKU, 2nd Semester, 2002/2003/2004/2005/2006.
- Invited short lecturing/talks at Shanghai Jiaotong University, Tsinghua University, Hunan University, Tongji University, Dalian University of Technology, and Aalborg University (Denmark) between 2000 and 2006.
- Invited Lecturer, MIDM, Master of Interdisciplinary Design and Management program, Department of Architecture, HKU, 2nd Semester, 2002-present.
- Invited lecturer, The First International PhD courses on natural ventilation, Aalborg University, August, 2003.
- Invited lecturer, The Second International PhD courses on natural ventilation, Aalborg University, August, 2005.

Final Year Project students/MSc Student Projects

2000-2001 Academic year 5 FYP students*
*)2001 Diamond Award, ASHRAE HK Chapter to Vincent Chan Wing Shing's thesis

2001-2002 Academic year 2 MSc Student Projects
2001-2002 Academic year 6 FYP students*

*)2001 HKIE Award, and Outstanding Award, ASHRAE HK Chapter to Miss Natalie Tsang Hing Kwan's thesis

2002-2003 Academic year 3 FYP students*
*) 2003 Diamond Award, ASHRAE HK Chapter, to Ms Alita Ho and a HKIE Award.

2003-2004 Academic year 1 MSc Student Project
2003-2004 Academic year 3 FYP students
*) 2004 Diamond Award, ASHRAE HK Chapter, to Mr Kevin Cheung.

2004-2005 Academic year 3 FYP students
*) 2005 Outstanding Award, ASHRAE HK Chapter, to Ms Lau Mei Wan Toby.

2005-2006 Academic year 4 FYP students
*) 2006 Sichuan-HK Conference Award (Only one in Hong Kong), ASHRAE HK Chapter, to Ms Tiffany Yau.
*) 2006 Outstanding Award, ASHRAE HK Chapter, to Ms Tiffany Yau..

2006-2007 Academic year 4 FYP students

Supervision of Postgraduate Students

Principal Supervisor:

1. Mr Hugh Leung – Enclosure flows driven by combined natural and mechanical forces. **MPhil** (Jan 2001 – Mar 2003), Graduated
2. Mr Jimmy Chiwai Yam – Effects of thermal mass in naturally ventilated buildings. **MPhil** (Sept 2001 – Jul 2003), Graduated
3. Mr Qian Hua – Hospital ventilation for controlling respiratory pollutants, **PhD** t (Sept 2003 –Aug 2007) (Co-supervisor, Prof. Peter Nielsen)
4. Ms Xie Xiaojian – Evaporation and Dispersion of Respiratory Droplets in Indoor Environment, **PhD** (Sept 2004-Aug 2008)
5. Mr Edward Tsui – Neighborhood ventilation of a cluster of buildings by combined forces, part-time **MPhil** (Jan 2005-)
6. Ms Lina Yang – City ventilation by thermal buoyancy, **PhD** (Sept 2005- Aug 2009)
7. Mr Hang Jian – Natural ventilation of high-rise dense cities by wind, **MPhil** (Sept 2005-Aug 2007)
8. Mr Luo Zhiwen - Wind ventilation of urban neighborhood (cluster of buildings) and buildings, **PhD** (Sept 2006-August 2010)
9. Mr Gong Jian - Solution multiplicity in smoke movement and control, **PhD** (Sept 2006-August 2010) (co-supervisor, Dr LQ Wang)
10. Ms Gao Xiaolei - Impact of built environment on transmission of infectious diseases, **MPhil** (Jan 2007-Dec 2008) (co-supervisor Prof. Gabriel Leung of Faculty of Medicine)
11. Mr Liu Li - Engineering control of large droplet transmission of diseases, MPhil (Sept 2007-Aug 2009)

Co-supervisor in other universities:

1. Mr Zhuang Zhi, "Heat transfer and air flow mechanisms of Chinese kangs", Master

thesis, Dalian University of Technology, 2004-, PhD thesis, 2006-, (Co-supervisor Dr Chen Bin, Prof. Li is the principal supervisor).

2. Ms Duan Shuangping, "Natural ventilation in buildings with multiple openings", Master Thesis, Hunan University, 2002-2004, with Prof. Zhang Guoqiang, Graduated

3. Ms Lina Yang, "Potential of natural ventilation for buildings in China", Master thesis, Huan University, 2003-, with Prof. Zhang Guoqiang, Graduated

4. Ms Zhou Junli, "Hybrid ventilation in buildings", PhD thesis, 2004-, Hunan University, with Prof. Zhang Guoqiang.

5. Mr Mahesh Prakash - Turbulent natural convection in porous media, PhD, Victoria University of Technology. (1997-2000), Graduated

6. Mr Scott Spencer - Investigation on solar chimneys, M.Sc., Concordia University, Canada. (1999-2000), Graduated

7. Ms Marianne Bjerre and Ms Alice Andersen - Measurement of solution multiplicity of natural ventilation, M.Sc., Aalborg University, Denmark. Measurement completed in CSIRO. (1999-2000), Graduated

Industry Short-course Organiser and Presentations

1. Organised a distinguished lecture by Prof. BB Todorovic on energy and buildings for CIBSE HKB, HKIE BSD, ASHRAE HK Chapter, April 2006.

2. Invited talk - Control of airborne/droplet-borne infectious diseases in hospitals – where is engineering? IHEEM HK Branch, HKIE BS Div, ASHRAE HK Ch, CIBSE HK Branch, Technical Talk 28 March 2006

3. Organised a distinguished lecture by Prof. Bjarne Olesen on thermal comfort and ventilation international standards for CIBSE HKB, HKIE BSD, ASHRAE HK Chapter, March 2006.

4. Organised a workshop by Prof. Peter Nielsen on displacement ventilation for CIBSE HKB, HKIE BSD, ASHRAE HK Chapter, March 2005.

5. Organised a distinguished lecture by Prof. Jan Sundell on ventilation and health for CIBSE HKB, HKIE BSD, ASHRAE HK Chapter, December 2004.

6. Gave a seminar for HKIE, July, 2003, "Application of CFD in BSE with Examples from SARS-related Research". Attended by more than 100 people.

7. Gave a Half-Day Workshop jointly organized by CIBSE HKB, HKIE BSD, ASHRAE HK Chapter and Supported by the PolyU BSE Department, 27 March 2004, "Basic Theory of CFD in Building Services Engineering"

8. Gave talks to a number of Round Table Discussion Forums on SARS and Avian Flu

organised by Hospital Authority (Director Dr Vivian Wong), 2003-2006.

9. Co-organiser and Lecture, CPD Course on Advanced Building Performance Modelling, May 2003.

10. Lecture, CPD Course on Advanced Building Performance Modelling, Organised by ASHRAE HK Chapter, 2001.

11. Co-organiser, CFD Awareness workshop for building service engineering, Melbourne and Sydney, May, 1998, May 1999 and March/May 2000

12. Lecture, Short Course on Designing Natural and Hybrid Ventilation Systems in Buildings. Organised by University of Sydney, May 2000.

13. Lecture, CFD Awareness workshop for building service engineering, Melbourne and Sydney, May, 1998, May 1999 and March/May 2000

14. Organiser, The 2nd AIRAH/CSIRO Ventilation Course, October, 1999

15. Organiser, The 1st AIRAH/CSIRO Ventilation Course, April, 1998

16. Lecture, Royal Melbourne Institute of Technology, undergraduate student course, Application of CFD to Built Environment, 1996.

PROJECT FUNDING RECEIVED (SINCE 1997) OR AS KEY INVESTIGATOR (BEFORE 1996)

The University of Hong Kong

2006

1. BioPassVent – A theory of enclosure ventilation for purging combined pollutants. RGC, HK$884,850, Sept 2006 – Aug 2009, PI
2. A Full-scale Mock-up Study of a New Air-conditioning System for SARS Wards by SARS Busters. The Hong Kong Institution of Engineers SARS Fund, HK$135,000, 2006-2008, PI
3. Solution Multiplicity of Smoke Flows in Buildings. CRCG, HK$120,000, 2006-2008, PI

2005

4. Interaction between natural ventilation and wind flow around a multi-storey building. GRC Hong Kong/Germany Collaboration Scheme, HK$40,600, Jan 2005 – Dec 2005, PI
5. Nonlinear coupling of thermal mass and natural ventilation in buildings. RGC, HK$350,000, Sept 2005 – Aug 2007, PI

2004

6. Wind-induced cross ventilation. Hong Kong/Germany Collaboration (extended), RGC, HK$30,000, Jan 2004 – Dec 2004, PI
7. Understanding Droplets due to the Use of Nebulizers and Respiratory Activities. RFCID/Hospital Authority, HK$798,360, Aug 2004 – Jul 2006, PI

8. Evaluating Factors that Affect Ventilation Effectiveness in SARS Wards. RFCID/Hospital Authority, RGC, HK$731,824, Aug 2004 – Jul 2005, PI
9. Dispersion and ventilation control of exhalation pollutants in hospital wards, PI, RGC, HK$380.074, 2004-2006.

2003

10. Young Outstanding Researcher Award, HK$300,000, Jul 2003 – Jul 2005, PI
11. Ventilation Design for SARS Wards, Faculty of Engineering, HK$210,000, 2003, PI (HKIE SARS Fund also laid HK$130k grant in 2006).

2002

12. Wind-induced cross ventilation. Hong Kong/Germany Collaboration, RGC, HK$26,600, Jan 2003 – Dec 2003, PI
13. A theory of enclosure ventilation, RGC, 1 Sep 2002 to 31 Aug 2005, HK$711,404, PI
14. Developing an integrated construction technology teaching program, UGC-TDG, $3,335,000, One of the Three PIs, 1/9/2002- 31/8/2004.

2001

15. A new dynamic theory for natural ventilation of buildings, RGC, $470k, 01-03, PI
16. Problem-based teaching in BSE, TDG, $220k 01-02, PI
17. Underfloor plenum system (ductless ventilation), AET, $100k, 01-02, PI
18. Fine bubble methods, CRCG, $120k, 01-02, PI
19. CFD study of the public transport interchange in Kowloon Tong, ASD HK Government, $150k, 01-02, CI , 2000
20. Linking indoor/outdoor air quality, CRCG, $120k, 00-02, PI
21. Mixed-mode air conditioning, ACRA Award, 30k, 01, PI

CSIRO

2000 Indoor Environments - CSIRO Appropriation Fund, A$1,000,000. (00-01) Project Leader.

- This successful bid focused on indoor environment technologies, combining the expertise from two previous CSIRO project teams.

"The Quiet kitchen" - a new generation of kitchen range hoods. DISR R&D Start program, $A260,000 with additional A$260,000 from Conday Pty Ltd. (00-01) (PI)

- This confidential project was the first R&D Start project awarded by Department of Industry, Science and Tourism to the Division. The project was led by Mr Colin Chan after my departure.

1999 Ventilation and heat dispersion technologies - CSIRO Appropriation Fund, A$550,000. (99-00) Project Leader

- This successful bid focused on sustainable ventilation technologies and heat dispersion technologies for the food processing industry.

Displacement ventilation for Paramatta's Laundry, - Department of Public

Works and Services, NSW, A$45,000. (1999) (Project Leader)

- The aim of this collaborative research project is to recommend the optimum ventilation and air-conditioning methods for a laundry environment.

1997 Integrated Design Tools for Natural Ventilation - Department of Industry, Science and Resources, $A50,000. (97-02) (PI)

- This project is a technology diffusion project for design tools for natural and mixed-mode ventilation. Two annual workshops are held in Melbourne and Sydney each year.

1998 Carpark ventilation analysis - Westfield Shopping Centre, $A60,000. (98-00) Project Leader

- Ventilation flow rates designed according to Australian Standard 1668.2 are perhaps too high. This project uses the basic dilution principle and our natural ventilation program CHEMIX to study ventilation requirements of carparks in Australia. The project is completed.

1997 Integrated ventilation and indoor air quality technologies - CSIRO Appropriation Fund, about $A500,000 per annum for two years. (97-98) (CI)

- This project developed integrated CFD and multi-zone programs for building ventilation, thermal performance and indoor air quality. A turbulence model of porous media flows was validated in our laboratory. The fine bubble method was first suggested. A new natural ventilation theory was also developed in this project.

1997 Natural ventilation systems for smelter buildings - WMC and H H Robertson, $A60,000. (CI)

1996 International Collaboration on Advanced Ventilation Technologies - Department of Industry, Science and Resources, $A40,000. (96-98) (CI)

1996 Modelling and measurement of environmental tobacco smoke - Smoke and Health research Fund Australia, $A60,000. (96-97) (CI)

1995 Design tools for grain storage in silos - Grain Research and Development Corporation and Victoria University of Technology, $A150,000. (95-97) (CI)

Dr Li and his team also carried out a large number of consulting projects for industry, including

2006 CFD modelling of ventilation design for a Swimming Pool in Hong Kong

2005 CFD modelling of ventilation design for a bus terminal, Manhart Consultants.

2004 Multi-zone modelling of natural ventilation design for the HKU Space new building for Design Consultants Ltd.

2004 Multi-zone modelling of carpark ventilation design in a Yuen Long estate for Sun Hung Kai Properties Ltd.

2003 CFD modelling of natural ventilation design of the ESF school at Discovery Bay for JRP Ltd. (coordinator)

2001 Coordinator for Sun Hung Kai Properties Ltd, Clubhouse Mixed-mode Ventilation and Carpark Ventilation Modelling, April-July, 2001

2000 Multi-zone modelling of mixed-ventilation and cooling design for a city council building in Melbourne

2000 CFD modelling of ventilation and smoke spread modelling for the new CIQ

building for Malaysia near Singapore.
1999 CFD modelling of roof ventilators for MRE Industries
1998 Natural ventilation and thermal modelling of Birrong Girls High School for Department of Public Works and Services
1998 Mixed-mode natural ventilation systems for an industrial building for Worsley Alumina
1998 Kitchen range hood modellng for Condari
1998 CFD modelling of a cool room for Hooker Cockram
1997 Particle modelling in a sand trap for Alcoa Alumina
1997 Natural ventilation modelling of Melbourne Grammar School for AHW Engineering
1997 Refrigerated display units in a Woolworths Metro Store in Sydney for Restifa & Partners
1996 Natural ventilation of Flemington Fruit Market for Sydney Market Authority and Sinclair Knight Merz
1996 Hybrid ventilation modelling for Manly Hydraulics Laboratory for Department of Public Works and Services
1996 Air distribution in St James Theatre for Beca Pty Ltd, New Zealand

SCIENTIFIC ACTIVITIES

Editorial board and Conference Committee

Editorial board

1. Associate Editor, Indoor Air, 2007-
2. Editorial Board Member, Energy and Buildings, 2006 –
3. Editorial Board Member, Indoor Air, 2005 –2006
4. Editorial Board Member, Indoor and Built Environment, 2005-
5. Editorial Board Member, International Journal of Ventilation, 2002-present
6. Editorial Adviser, Journal of the IEST, 2003-2006
7. Invited Overseas Editorial Board Member, Building Energy and Environment, China, 2004-
8. Guest Editor for the Special Issue on Engineering Control of Respiratory Infectious Diseases such as SARS, HKIE Transactions, Vol. 12, No. 1, March 2005,.
9. Guest Editor for the special Indoor Air 2005 issue, HVAC&R Research, 2005-2006
10. Guest Editor for the special Indoor Air 2005 issue, International Journal of Ventilation, 2006

Conference Committees

2008 24. Member: International Scientific Committee, Indoor Air 2008, Denmark

23. Member: International Scientific Advisory Committee, the 3rd International Conference on Cryogenics and Refrigeration (ICCR'2008), April 6-9 2008, Shanghai, China

22. Member, International Scientific Committee, 2008 World Sustainable Building Conference, SB08 Melbourne, 21 to 25 September 2008, Melbourne Australia.

2007 21. Member: Scientific Advisory Committee, the 16th Australian Fluid Mechanics Conference, 3 – 1 December 2007, The University of Queensland, Australia.

20. Member, Scientific Committee, The 5th HVAC International Symposium, ISHVAC07, Beijing, 7-8 September, 2007.

19. Member, International Scientific Advisory Committee, The 6th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, IAQVEC 2007, Sendai, Japan, 28-30 October, 2007.

18. Member, International Scientific Advisory Committee, The 8th International Conference on Air Distribution in Rooms, Roomvent 2007, 13-15 June 2007, Helsinki, Finland

2006 17. Member: International Advisory Committee, Healthy Buildings 2006, the 8th International Conference, June 4-8, 2006, Lisboa

16. Member: International Programme Committee, ACRA2006, Asian Conference on Refrigeration and Air-conditioning, May 21-23, 2006, Gyeongju, Korea

15. Member: Scientific Advisory Committee, The 4th National Symposium on New Advances in Refrigeration and Air-conditioning (制冷空调新技术研讨会), Nanjing, China, April, 2006.

2005 14. Member: Technical Committee, Construction Industry Institute – Hong Kong Conference on Healthy Buildings, 30 November, 2005.

13. Member: Scientific Advisory Committee, The 10th International Conference on Indoor Air Quality and Climate, Indoor Air 2005, September 4 – 9, 2005 Beijing China

12. Member: Scientific Advisory Committee, The Third National Symposium on New Advances in Refrigeration and Air-conditioning (制冷空调新技术研讨会), Hangzhou, China, April, 2005.

2004 11. Member: Scientific Advisory Committee, the Fifteenth Australasian Fluid Mechanics Conference, 13 – 17 December 2004, University of Sydney Australia.

10. Member: SARS Forum Programme Committee, Hong Kong SARS Forum and Hospital Authority Convention 2004, 8-11 May 2004, Hong Kong.

9. Member: Scientific Advisory Committee, The 8th International Conference on Air Distribution in Rooms, Roomvent 2004, 5–8 September 2004, Coimbra, Portugal.

8. International Coordinator, The 2nd International Conference on Built Environment and Public Health (BEPH2004), December 6-8, Shenzhen, China

2003 7. Member: International Scientific Advisory Committee, Healthy Buildings 2003, the 7th International Conference, 13-17 July, 2003, Singapore

6. Member: International Scientific Advisory Committee, the 3rd International Conference on Cryogenics and Refrigeration (ICCR'2003), 2003, Hangzhou, China

5. Member: Scientific Advisory Committee, The Second National Symposium on New Advances in Refrigeration and Air-conditioning (制冷空调新技术研讨会), Shanghai, China, November, 2003.

2002 4. Member: Scientific Advisory Committee, The 7th International Conference on Air Distribution in Rooms, **Roomvent**, 8-11 September 2002, Copenhagen.

2001 3. Member, International Scientific Advisory Committee, The 4th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, **IAQVEC 2001**, Changsha, China, 2-5 October, 2001.

2000 2. Member: Scientific Advisory Committee, The 6th International Conference on Air Distribution in Rooms, Roomvent 2000, Reading, UK.

1999 1. Co-chairman and co-organiser, the First International Forum on Natural and Hybrid Ventilation, HybVent Forum, 28 September, Sydney, Australia, 1999, attended by 110 local engineers and architects and 25 international experts.

Chairman of International Workshops

1. Co-chairman, Special Session - Building Energy in China – the Present and the Future, The 6th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, IAQVEC 2007, Sendai, Japan, 28-30 October, 2007.

2. Co-chairman, Workshop - Respiratory flows and infection control, The 8th International Conference on Air Distribution in Rooms, Roomvent2007, 13-15 June 2007, Helsinki, Finland.

3. Co-chairman, Forum - Energy and Indoor Air Quality in Rural Homes in Northern China, the 4th International Workshop on Energy and Environment of residential Buildings, January 15-16 2007, Harbin, China.

4. Chairman, Workshop: Airborne transmission of infectious diseases in buildings, Healthy Buildings 2006, the 8th International Conference, June 4-8, 2006, Lisboa.

5. Chairman, Forum series - Forum series on infectious diseases and public health as

related to indoor air environment I, II, III. The 10th International Conference on Indoor Air Quality and Climate, Indoor Air 2005, September 4 – 9, 2005 Beijing China

6. Chairman, Workshop - SARS epidemics and Healthy Building Design. Healthy Buildings 2003, the 7th International Conference, 13-17 July, 2003, Singapore.

7. Co-chairman and co-organiser, the First International Forum on Natural and Hybrid Ventilation, HybVent Forum, 28 September, Sydney, Australia, 1999, attended by 110 local engineers and architects and 25 international experts.

Fellowships and awards

1. Fellow, American Society of Heating, Refrigerating and Air-conditioning Engineers, 2007
2. Research Award for Foreign Specialists, National Institute for Land and Infrastructure Management, Japan, 2005
3. The University of Hong Kong Outstanding Young Researcher Award, 2003
4. CSIRO Project Leadership program, 1997
5. CSIRO Post-Doctoral Research Scholarship, 1993
6. The Royal Institute of Technology PhD Scholarship, 1989-1993
7. Tsinghua Innovation Second Prize for invention of a breathing heat exchanger, 1987
8. Shanghai City Outstanding University Student Prize, 1986

9. Guest Professor, Aalborg University, Denmark, 2002-2005
10. Guest Professor, Shanghai Jiaotong University, China, 1999-2001
11. Adjunct Professor, Hunan University, China, 2002-2004
12. Visiting Professor, Central South University (2007-12)
13. Guest Professor, Xian University of Architecture and Technology (2007-09).
14. "Seasky Scholar" Visiting Professor, Dalian University of Technology, 2004-06
15. Senior Visiting Research Fellow, Tokyo University, Japan, 1997

Keynote speeches and Invited Speakers (Conferences)

2007

24. Plenary Speech: International Occupational Hygiene Conference, Melbourne 3-5, December 2007.

23. Plenary Speech: Ventilation for Control of Infectious Disease in Built Environment. The 9th International Conference on Air Distribution in Rooms, Roomvent 2007, Helsinki, Finland, 13-15 June 2007.

2006

22. Invited speaker: Chinese Kangs – Today's Rural Essential Home Heating System and Tomorrow's Sustainable Energy Technologies. The 37th Congress on Heating, Refrigerating and Air-Conditioning, Belgrade, December 6-8 2006.

21. Invited speaker: Airborne Transmission of Infectious Diseases and Effectiveness

of Isolation Room Ventilation. The 3rd Annual Conference of the Korean Society for Indoor Environment (KOSIE), Seoul, Korea, 15 September 2006.

20. Invited speaker: Airborne Transmission of Infectious Diseases and Effectiveness of Isolation Room Ventilation. Preparing for the Next Pandemic: Controlling Transmission of Infectious Diseases in Hospitals, 2006 ASHRAE Annual Meeting, Quebec City, June 24-28, 2006.

19. Invited speaker: On isolation rooms - negative pressure and open window. Hong Kong Infection Control Nurses' Association 2nd International Conference, Hong Kong, 17-18 June, 2006.

18. Invited speaker: The 2003 SARS Outbreak at Amoy Gardens Housing Estate (Hong Kong) – What Have We Learned? The 6th International Indoor Quality Symposium: Infectious Disease and the Role of the IH in Preventing and Managing the Coming Epidemic, Sunday, May 14, 2006, Chicago, Illinois.

17. Invited speaker: (2 talks) The three elements of building ventilation and SARS. Will Chinese kangs stay or go – the future of IAQ in rural homes in northern China? First Annual Meeting of the Taiwan Society of Indoor Environment and the Joint Conference of the Taiwan Occupational Health Association, and Taiwan Environmental and Occupational Medicine Association, First Regional Conference for the Southeastern Chapter of the International Society of Environmental Epidemiology April 27-29, 2006.

2005

16. Invited speaker: Back-calculation and Environmental Modelling for the 2003 SARS Epidemic and Developing Effective Engineering Control Methods. International Workshop on Clinical and public health applications of mathematical modelling, September 26-30, 2005, Singapore.

15. Invited Speaker: Design for Thermal Mass and Night Ventilation in Buildings – Heavy or Light? The Second International Workshop on Natural Ventilation, Tokyo, Japan, December, 2005

14. Keynote Speech: Indoor air transmission of infectious diseases – droplet dispersion and ventilation control (in Chinese) The Third National Symposium on New Advances in Refrigeration and Air-conditioning (制冷空调新技术研讨会), Hangzhou, China, April, 2005.

2004

13. Invited speaker: Probable Roles of Bio-Aerosol Dispersion in the Amoy Gardens SARS Outbreak. International Workshop on Population Dynamics and Infectious Disease in Asia, 27-29 October 2004, Singapore.

12. Invited speaker: Hong Kong SARS Forum and Hospital Authority Convention 2004, 8-11 May 2004, Hong Kong.

2003

11. Invited Speaker: The First International Workshop on Natural Ventilation, Tokyo, Japan, Oct 31-Nov 1, 2003

10. Invited Paper: Asian Pacific Conference on Built Environment, 18, November, 2003, Hong Kong.

9. Keynote Speech: the 3rd International Conference on Cryogenics and Refrigeration (ICCR'2003), 2003, Hangzhou, China

8. Keynote Speech: National Natural Gas Air Conditioning and Fight against SARS, Chengdu, Nov, 2003.

7. Keynote Speech: The 2nd National Conference on New Advances of Refrigeration and Air-conditioning, 18-22, November, 2003, Shanghai, China.

2002

6. Invited paper: World Renewable Energy Congress VII & Expo, Cologne, Germany, 29 June - 5 July 2002

2001

5. Keynote Speech, The First National Symposium on New Advances in Refrigeration and Air-conditioning, Shanghai, China, November, 2001

2000

4. Invited Participant and Speaker, "Third Pacific-Rim Thermal Sciences and Energy Engineering Workshop (PaRTSEE-3), The University of New South Wales, Sydney, Australia, January 5-7, 2000

1999

3. Invited speaker, "Advanced Australian Fare – Food Related Innovation in the 21st Century", 6-7 December, 1999

2. Invited speaker, the First Australian Minerals & Energy Environment Foundation Innovation Conference, "On the Threshold: Research into Practice", Melbourne, 31 March – 1 April, 1999

1. Keynote speaker, the 3rd International Symposium on HVAC, Shenzhen, November, 1999

Dr Li also gave numerous invited lectures and talks in leading universities and research institutions in China, Singapore, US, Europe, Australia, Japan between 1992 and present.

ADMINISTRATION AND COMMUNITY SERVICES

The University of Hong Kong

June 1, 2007

1. Faculty of Engineering Representative on the Board of Academic Awards, HKU, 2003-2005, 2005-2007
2. Coordinator, B.Eng. Building Services Engineering Programme, 2003-
3. Member, Faculty MSc (BSE) Programme Committee, 2002-
4. Member, Departmental Research Committee, 2002-
5. Member, Department Advisory Committee, 2003-2004, 2004-2005
6. Member, Department Research Postgraduate Committee, 2003-
7. Member, Timetabling and Enrolment committee, 2000-
8. Secretary, Departmental Staff Student Consultative Committee, 2006-
9. Staff Representative for Departmental Exchange Students, 2005-
10. Twice represented Faculty/Department to promote postgraduate and undergraduate programs in the Mainland – Beijing, Nanjing, Shanghai in 2005.
11. Advisor (founding): ASHRAE HKU Student Branch, 2002-

CSIRO, Australia

1. Sector Coordinator for CSIRO Energy Technology, 2000
2. Member, Divisional Project Leaders' Council, 1999-2000.
3. Australian Representative, International Energy Agency Annex 35 project, 1998-2000.
4. Project/Team Leader at CSIRO Building Construction and Engineering, Australia, 1997-2000 (Budget and financial management of about A$1 million, Staff supervision and performance evaluation).

Local

1. Member, Appeal Board Panel Under Builder's Lifts and Tower Working Platforms (Safety) Ordinance (Cap. 470), Department of Electrical and Mechanical Services, Hong Kong Government, 2006-
2. Chairman (Founding), Technical Working Group on Ventilation and Health, ASHRAE HK Chapter, 2004-
3. Member, Working Group on Promoting the Use of Disease Modelling, Centre for Health Protection, Department of Health, 2005-
4. Chairman, Chapter Technology Transfer Committee, ASHRAE HK Chapter, 2004-05, 2005-2006

International (see also scientific activities)

1. Chair, Task Force on Airborne transmission of infectious diseases in buildings, International Society of Indoor Air Quality and Climate (ISIAQ), 2006-
2. Chairman, Task Force on Indoor Air Environment and Infectious Diseases, International Society of Indoor Air Quality and Climate (ISIAQ), 2005-
3. SubTask Leader, International Energy Agency Annex 35 project, 1998-2003
4. Coordinator, Thermal Mass task, International Energy Agency Annex 44 project, 2005-
5. Coordinator Working Group B1 on Integrating Thermal Stratification in Natural Ventilation Analysis, International Energy Agency Annex 35 Project – Hybvent (1998-2002).
6. Member, International Council for Research and Innovation in Building and

Construction, CIB, Working CommissionsW77 – Indoor Climate, 2000-
7. Australian Representative, International Council for Research and Innovation in Building and Construction, CIB, Working CommissionsW77 – Indoor Climate, 1997-2000

COMPLETE LIST OF PUBLICATIONS BY DR YUGUO LI
(from 1990-)

Last Updated 2 June 2007

Summary

I	Refereed journal papers	82
II	Refereed conference papers	115
III	Un-refereed papers and confidential reports	37
IV	Book chapters and Editorships	8
V	Other outputs – media coverage of his work	6 subjects

Papers of special significance are indicated *.

Level of contribution by Yuguo Li for co-authored papers:
- As the first author, between 50-90% and,
- for other co-author papers, between 10-50%.

Journal papers under preparation

J103 Li, Y., Lam, TH, Leung, G., Qian, H., He, Y. etc: Evidences of airborne transmission in nosocomial infection during the first SARS outbreak in Beijing. Prepared for **Lancet**, 2006.

J102 Li Y, Sun H, Yang X, Li J and Guo J.: Indoor Air Environment with Chinese Kangs in Rural Northern China – A Field Study. Prepared for **Indoor Air**, 2006.

J101 Qian, H., Li, Y., Nielsen, P and Huang, X.: Spatial distribution of risk of airborne transmission of SARS in a hospital ward. Prepared for **Journal of Hospital Infection**, 2006.

J100 Qian, H., Li, Y., Yuen PL and Seto WH: Particle removal efficiency of a portable HEPA air cleaner in a full-scale hospital ward test room. Prepared for **Journal of Hospital Infection**, 2006.

J99 Huang, X., Li, Y., Ching WH, Yuen PL and Seto WH: Dispersion of intermittently generated respiratory droplet nuclei and ventilation performance in an isolation room, Prepared for **Journal of Hospital Infection**, August 2006.

J98 Yang, L. and Li Y.: A Preliminary Study on the Effect of Thermal Mass on the Air Conditioning Load. Prepared for **Energy and Buildings**, December 2005

J97 Li Y. and Qian H.: Particle removal efficiency of a portable HEPA air cleaner in a full-scale hospital ward test room. Prepared for **Journal of Hospital Infection**, 2006. (Impact Factor, 1.823)

J96 Li, Y. and Xu, P.: On Thermal Mass in Buildings – Part 4: What Happens with Natural Ventilation. Prepared for **HVAC&R Research,** February 2006. (Impact

Factor, 0.755)

J95 Li, Y. and Xu, P.: On Thermal Mass in Buildings – Part 3: The Effect of External Wall on Indoor Air Temperature. Prepared for **HVAC&R Research,** February 2006. (Impact Factor, 0.755)

J94 Li, Y. and Xu, P.: On Thermal Mass in Buildings – Part 2: Combination of Multiple Internal Thermal Mass Elements. Prepared for **HVAC&R Research,** February 2006. (Impact Factor, 0.755)

J93 Li, Y. and Xu, P.: On Thermal Mass in Buildings – Part 1: Comparison of Internal Thermal Mass of Different Shapes for a Harmonic Outdoor Air Temperature. Prepared for **HVAC&R Research,** February 2006. (Impact Factor, 0.755)

J92 Li, Y. and Xu, P.: A Simple Design Method for Sizing Internal Thermal Mass with Night Ventilation. Prepared for **HVAC&R Research,** December 2005. (Impact Factor, 0.755)

J91 Duan, S., Li, Y. and Xu, P.: Effect of External Thermal Mass on Thermal Delay of Buildings Considering Periodic Internal Heat Source. Prepared for **Energy and Buildings**, December 2005. (Impact Factor, 0.513)

Journal papers submitted for publication

J90 Zhuang Z, Li Y. and Chen, B.: Macroscopic Modeling of Heat Transfer and Airflow in an Elevated Chinese Kang Heating System - Part 1. Ventilation theory. Submitted to **Energy and Buildings**, August 2006

J89 Zhuang Z, Li Y. and Chen, B.: Macroscopic Modeling of Heat Transfer and Airflow in a Chinese Elevated Kang Heating System - Part 2. Thermal Storage Theory. Submitted to **Energy and Buildings**, August 2006

J88 Li Y., Zhuang Z., Chen, B., Guo J. and Tang C.. Chinese Kang as a Domestic Heating System in Rural Northern China – A Review. Submitted to **Energy and Buildings**, August 2006.

J87 Ching WH, Leung, M.K.H., Leung, D.Y.C., Li Y, Yuen PL: Reducing risk of airborne transmitted infection in hospitals by use of hospital curtains, Submitted to **Journal of Hospital Infection**, June 2006.

J86 Li, Y., Ching WH, Qian H, Yuen PL, Seto WH, Kwan, JK, Leung J, Leung M and Yu SCT.: An Evaluation of Ventilation Performance of New SARS Isolation Wards in Nine Hospitals in Hong Kong. Submitted to **Infection Control & Hospital Epidemiology**, June 2006.

J85 Li, Y., Xu, P., Ho, L.M. and Leung, G.M.: Back-Calculation Methods for Estimating Infection Time in the 2003 SARS Epidemic. Submitted to **Journal of the American Statistical Association**, April, 2005. (Impact Factor, 2.123) Rejected, being considered for submission to Emerging Infectious Diseases.

J84 Xu, P. and Li, Y.: Revisiting internal pressure dynamics in a single opening enclosure ventilated by wind. Submitted to **Journal of Wind Engineering and Industrial Aerodynamics**, October 2004. (Impact Factor, 0.403) Rejected, being revised.

J83 Chang, Q., Li, Y. and Xu, P.: The stability and convergence for difference schemes to initial boundary value problems of the Burgers equation. Submitted to **Mathematics of Computation**, May 2004. (Impact Factor, 1.074) Rejected, being considering for submission to another journal.

Journal papers accepted for publication

J82 Qian, H., Li, Y., Nielsen, P.V., Hyldgaard, C.E., Wong, T.W.: Dispersion of Exhalation Pollutants in a Two-Bed Hospital Ward with a Downward Ventilation System. To appear in **Building and Environment**, 2006. (Impact Factor, 0.427) (Online published in 2006)

I Published Refereed journal papers

2007

*J81 Xie, X., Li, Y., Chwang, ATY, Ho, PL and Seto, WH: How far droplets can move in indoor environments – Revisiting Wells evaporation-falling curve of droplets. **Indoor Air**, 17 (3), 211-225, 2007. (Impact Factor, 2.035) (SCI Citations, 0)

*J80 Li Y, GM Leung, JW Tang, X Yang, CYH Chao, JZ Lin, JW Lu, PV Nielsen, J Niu, H Qian, AC Sleigh; H-J J Su, J Sundell, TW Wong, PL Yuen. Role of ventilation in airborne transmission of infectious agents in the built environment – a multidisciplinary systematic review. **Indoor Air**, 17 (1), 2-18, 2007. (Impact Factor, 2.035) (SCI Citations, 0)

2006 (9 papers)

*J79 Xie, X., Li, Y., Zhang, T., Fang, H.H.P.: Bacterial Survival in an Evaporating Deposited Droplet on a Teflon-coated Surface. Published online in **Applied Microbiology and Biotechnology**, vol. 73(3), pp. 703-12, 2006. (Impact Factor, 2.538) (SCI Citations: 0)

J78 Li, Y. and Xu, P.: Thermal mass design in buildings – heavy and light? **International Journal of Ventilation**, vol. 5, no. 1, pp. 143-149, 2006. (SCI Citations: NA)

J77 Liddament, M., Axley, A., Heiselberg, P., Li, Y., and Stathopoulos, T.: Achieving natural and hybrid ventilation in practice. **International Journal of Ventilation**, vol. 5, no. 1, pp. 115-130, 2006. (SCI Citations: NA)

J76 Seifert, J., Li,Y., Axley, J. and Rösler, M.: Calculation of wind-driven cross ventilation in buildings with large openings. **Journal of Wind Engineering and**

Industrial Aerodynamics, 2006. Available online August 2006 (Impact Factor, 0.403) (SCI Citations: 0)

J75 Tang JW, Li Y, Eames I, Chan, P.K.S., Ridgway, G.L.: Factors involved in the aerosol transmission of infection and control of ventilation in healthcare premises **Journal of Hospital Infection**, 64(2):100-14, 2006. (Impact Factor, 1.823) (SCI Citations: 1) (Received the Best Review Article Award of JHI, Jan 2007)

*J74 Li, Y., Xu, P., Qian, H., Deng, Q. and Wu, J.: Flow bifurcation due to opposing buoyancy in two vertically-connected open cavities, **International Journal of Heat and Mass Transfer**, 49, 3298-3312, 2006. (Impact Factor, 1.293) (SCI Citations: 0)

*J73 Yang, L., Xu, P. and Li, Y.: Nonlinear Dynamical Analysis and Solution Multiplicity Study of Natural Ventilation in a Two-zone Building: Part B – CFD Simulations. **HVAC&R Research**, vol. 12, no. 2, 231-256, 2006. (Impact Factor, 0.755) (SCI Citations: 0)

*J72 Yang, L., Li, Y., Xu, P. and Zhang, G.: Nonlinear Dynamical Analysis and Solution Multiplicity Study of Natural Ventilation in a Two-zone Building: Part A - Theoretical Analysis. **HVAC&R Research**, vol. 12, no. 2, 257-278, 2006. (Impact Factor, 0.755) (SCI Citations: 1)

*J71 Qian, H., Li, Y., Nielsen, P.V., Hyldgaard, C.E., Wong, T.W., Chwang, A.T.Y.: Dispersion of exhaled droplet nuclei in a two-bed hospital ward with three different ventilation systems, **Indoor Air**, 16, 111-128, 2006. (Correction, 16 (3): 256-256; JUN 2006) (Impact Factor, 2.035) (SCI Citations: 4)

2005 (8 papers)

J70 Tang JW, Eames I, Li Y, Taha YA, Wilson P, Bellingan G, Ward KN, Breuer J, Door-opening motion can potentially lead to a transient breakdown in negative-pressure isolation conditions: An introduction to the importance of vorticity and buoyancy airflows, **Journal of Hospital Infection**, 61, 283-286, 2005. (Impact Factor, 1.823) (SCI Citations: 2)

J69 Duan, S. and Li, Y.: An Example of solution multiplicity in a building with bidirectional flow openings. **Indoor and Built Environment**, 14 (5), pp. 359-369, 2005. (Impact Factor, 0.525) (SCI Citations: 0)

J68 Li, Y., Duan, S. and Zhang, G.: Multiple Solutions in a building with four openings ventilated by combined forces. **Indoor and Built Environment**, 14(5), pp. 347-358, 2005. (Impact Factor, 0.525) (SCI Citations: 0)

J67 Zheng Z, Xu P, Li Y, Chen G, Nonlinear resonance and quasi-periodic solutions for ventilation flows in a single opening enclosure. **International Journal of Bifurcation and Chaos**. Vol. 15, no.5, p. 1801-1808, 2005. (Impact factor, 1.104) (SCI Citations: 0)

J66 Yang, L.N., Zhang, Q., Li, Y. and Chen, Y.: Investigating potential of natural driving

forces for ventilation in four major cities in China. **Building and Environment**, 40, 738-746, 2005. (Impact Factor, 0.427) (SCI Citations: 1)

J65 Yu, I.T.S., Wong, T.W., Chiu, Y.L., Lee, N., Li, Y.: Spatio-temporal Analysis of SARS among Hospital Inpatients. **Clinical Infectious Diseases**, 40, 1237-1243, 2005. (Impact Factor, 5.393) (SCI Citations: 14)

J64 Li, Y., Duan, S., Yu, I.T.S. and Wong, T.W.: Multi-zone modeling of probable SARS virus transmission by airflow between flats in Block E, Amoy Gardens. **Indoor Air**, vol. 15, pp. 96-111, 2005. (Impact Factor, 2.035) (SCI Citations: 5)

*J63 Li, Y., Huang, X., Yu, I.T.S., Wong, T.W. and Qian, H.: Role of air distribution in SARS transmission during the largest nosocomial outbreak in Hong Kong. **Indoor Air**, vol. 15, pp. 83-95, 2005. (Impact Factor, 2.035) (SCI Citations: 8)

2004 (9 papers)

J62 Li, Y., Sandberg, M. and Hui, S.: Robustness of Air Distribution in Plenum-Based Ductless Ventilation Systems. **International Journal of Ventilation**, vol. 3, pp. 105-118, 2004. (Impact Factor, N/A) (SCI Citations: NA)

J61 Chan, F., Cheung, V., Law, V., Li, Y., Wong, A. and Yau, R.: Air Distribution Design in a SARS Ward with Multiple Beds（多病床非典病房的气流分布研究）. **Building Energy and Environment** (建筑热能通风空调) 23, pp. 21-33, 2004. (In Chinese) (Impact Factor, N/A) (SCI Citations: NA)

J60* Li, Y., Yu, I.T.S., Xu, P., Lee, J.H.W., Wong, T.W., Ooi, P.P. and Sleigh, A.: Predicting super spreading events during the 2003 SARS epidemics in Hong Kong and Singapore, **American Journal of Epidemiology**, vol. 160, pp. 719–728 , 2004. (Impact Factor, 4.486) (SCI Citations: 7)

J59 Seifert, J., Rösler, M., Richter, W. and Li, Y.: Windinduzierte Lüftung in Gebäuden mit groβen Öffnungen, **HLH**, Bd. 55, Nr. 7, 30-33, 2004. (in German) (Impact Factor, N/A) (SCI Citations: NA)

J58 Yu, I.T.S. and Li, Y.: Correspondence on "Evidence of Airborne Transmission of SARS" – Authors reply. **New England Journal of Medicine**, 351, pp. 609-611, 2004. (Impact Factor, 34.833) (SCI Citations: 0)

J57 Li, Y. and Yam, Y. Designing thermal mass in naturally ventilated buildings. **International Journal of Ventilation**, Vol. 2, No. 4, pp. 313-324, 2004. (Impact Factor, N/A) (SCI Citations: NA)

J56* Yu, I.T.S, Li, Y.G., Wong, T.W., Tam, W., Chan, A., Lee, J.H.W., Leung, D.Y.C., Ho, T. Evidence of Airborne Transmission of the Severe Acute Respiratory Syndrome Virus. **New England Journal of Medicine**, 350, pp. 1731-1739, 2004. (Impact Factor, 34.833) (SCI Citations: 83, ranked as one of the Highly Cited Papers by SCI in August 2006)

J55 Wong, T.W., Li, C.K., Tam, W., Lau, J.T.F., Yu, T.S., Lui, S.F., Chan, P.K.S., Li, Y.G., Bresee, J.S., Sung, J.Y., Parashar, U.D., Cluster of SARS among medical students exposed to single patient, Hong Kong, **Emerging Infectious Diseases**, 10, 269–76, 2004. (Impact Factor, 5.340) (SCI Citations: 31)

J54*. Heiselberg, P., Li, Y., Andersen, A., Bjerre, M. and Chen, Z.: Experimental and CFD evidence of multiple solutionsa in a naturally ventilated building, **Indoor Air**, 14, 43-54, 2004. (Impact Factor, 2.035) (SCI Citations: 4)

2003 (8 papers)

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V Other outputs – media coverage of his work and patents

M7 可移动式智能型局部空调回风及杀菌装置，申请号：03129308.0 发明人：王如竹，李玉国，黄新华，郑晓红，吴静怡。2003.

M6 In April 2005, Clinical Infectious Diseases published his co-authored paper on 8A ward SARS outbreak investigation. The joint research results on possible airborne transmission were reported by many international media in US, Canada, Singapore, China, India etc.

M5 On 23 April 2004, New England Journal of Medicine published his co-authored paper on Amoy Gardens SARS outbreak investigation. The joint research results on possible airborne transmission were reported by many international and local media n US, Canada, Singapore, China, India, Japan, Russia etc, including CNN, Washington Post, New Scientists in different languages.

M4 On 11 July 2003, The Hong Kong Institution of Engineers and the University of Hong Kong held a joint Media Release on the work on SARS ward air conditioning systems by his research team. Again, it was covered widely in the HK media. The half million dollars full-scale SARS Ward test room completed in four weeks time was visited by more than 300 people from EPD, ASD, EMSD, Hospital Authority, WHO experts, medical doctors, engineers etc.

M3 On 17 April 2003, The Faculty of Engineering at the University of Hong Kong did a Media Release based on the HKU Engineering Faculty's Project Team on Amoy

Gardens SARS Outbreak. Dr Li had been the key team member. There have been wide media coverage of their work in Hong Kong and also some coverage overseas until May 2003. Represented the team, Dr Li has made presentations to various HK government departments, US CDC former Chairman, WHO Amoy Gardens Investigation team etc.

M2 In August 1999, CSIRO did a Media Release based on his work on hybrid ventilation and the First International Forum on Natural and Hybrid Ventilation (HybVent Forum 99). A wide media exposure was received. These included 12 radio interview and radio news, 12 newspaper (including the Australian and the Age) coverage and 2 features in industry magazines in Australia.

M1 His work on CFD in built environment and modelling of St James Theatre, Flemington Market, and Olympic Dam Smelters, natural ventilation modelling were featured in a number of industry magazines in Australia from 1995 to 2000.