

Curriculum Vitae - Lina YANG

Dr. Lina Yang is a Post-doctoral fellow in the Department of Mechanical Engineering, the University of Hong Kong. She received her B.Eng. in Building Environment and Equipment Engineering from Hunan University in 2002, obtained her M. Eng. in Heating, Ventilation and Air-conditioning Engineering from Hunan University in 2005, and then obtained her Ph.D. from the University of Hong Kong in 2009. She was a Research Assistant I in the Department of Mechanical Engineering, the University of Hong Kong in 2004.

During Dr. Yang's B. Eng. Study (1998-2002), she got a very good record in major courses (GPA: 3.74 out of 4) and stood out among many students. During her postgraduate study (2002-2009), she was very active in research studies and communication. Her current research topics include natural ventilation and flow bifurcation, thermal mass and energy saving, recently on city ventilation and heat islands, as well as heat and air pollution transport and dispersion. She is very good at Fortran programme and CFD software (Fluent and Airpak).

Dr. Yang has been actively participated in 12 research project and 1 consulting project for industry. She publishes over 18 articles including 10 papers (5 English/ 5 Chinese) in excellent engineering journals such as Building and Environment and HVAC&R Research, and 8 conference papers. During the postgraduate study, Dr. Yang served as assistant teacher/demonstrator in the universities. She also assisted to prepare and organize several internal conferences and forum. She was a student member of ASHRAE in 2007.

Lina YANG, PhD

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Education

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| PhD | Building Services Engineering, The University of Hong Kong, Hong Kong
Thesis: <i>City ventilation of Hong Kong by thermal buoyancy</i>
Supervisor: Yuguo Li | 2005-2009 |
| M. Eng | HVAC Engineering, Hunan University, China
Thesis: <i>Analysis of solution multiplicity and potential of natural ventilation in buildings</i>
Supervisors: Guoqiang Zhang, Youming Chen | 2002-2005 |
| B. Eng | Building Environment & Equipment Engineering, Hunan University, China
Thesis: <i>Develop VOC emission model by system identification based on BP neural network</i>
Supervisor: Guoqiang Zhang | 1998-2002 |

Employment

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|-----------------------------|---|-----------------|
| Post-doctoral Fellow | Department of Mechanical Engineering, the University of Hong Kong | 09/2009- |
| Research Assistant | Department of Mechanical Engineering, the University of Hong Kong | 08/2004-11/2004 |

Project participated

- ◆ 2009- , IEA Annex 53 - Total Energy Use in Buildings- Analysis and evaluation methods
- ◆ 2009- , UDF Initiative on computational science and engineering, UDF, HKU
- ◆ 2008- , UDF Initiative on clean energy and environment, University Development Foundation, HKU
- ◆ 2006-2009, Research Grants Council of the Hong Kong Special Administrative Region, China “CityVent – A Theory of Ventilation of a Dense and High-Rise City by Wind and Buoyancy Forces” (Project No. HKU 7145/07E).
- ◆ 2005-2009, IEA Annex 44 Project on Integrating Environmentally Responsive Elements in Buildings, Member of Subtask A as HK Representative.
- ◆ 2007-2008, Consultancy Service on the Redevelopment of 15 & 17 Magazine Gap Road, Allied Crown Limited. “CFD modeling of ventilation for residential buildings in Hong Kong”.
- ◆ 2005-2006, Research Grants Council of Hong Kong SAR, China “Nonlinear coupling of thermal mass and natural ventilation in buildings” (Project No. 7154/05E).
- ◆ 2005, National Natural Science Foundation of China “Coupling of thermal mass and natural ventilation” (No. 50478055).
- ◆ 2004-2005, Research Grants Council of the Hong Kong Special Administrative Region, China (Project No. HKU 7020/02E), as a **Research Assistant I** in the Department of Mechanical Engineering, the University of Hong Kong.
- ◆ 2003-2004, Teaching and Research Award Program for outstanding young teachers in higher education institutions of MOE, PR China (No. [2002] 383).
- ◆ 2003-2004, Student Innovation Training Program (SIT) of Hunan University “Potential analysis of hybrid

ventilation in China”.

- ◆ 2002-2003, 10th Five Year National Key Project of China (No.2002 BA 806 B02).
- ◆ 2001-2002, National Natural Science Foundation of China (No. 50478055).

Teaching & Supervision

- ◆ 2005-2009, Teaching assistant (demonstrator) of Integrated computer and laboratory studies on “Thermo” and “Engineering Thermodynamics” for undergraduate students.
- ◆ 2005-2008, Teaching assistant for Engineering Training Program on CFD for undergraduate students.
- ◆ 2003-2004, Assist to supervise three undergraduate students on Student Innovation Training Program (SIT) of Hunan University “Potential analysis of hybrid ventilation in China”.
- ◆ 2003, Teaching assistant of Specialized English for HVAC undergraduate students.

Academic activities

- ◆ 2009, Invited as a reviewer for the International journal “Energy and Buildings”
- ◆ 2009, Invited as a reviewer for “The 6th International Symposium on Heating, Ventilating and Air Conditioning (ISHVAC 2009)”
- ◆ 2007, Assist to organize the 7th International Energy Agency Annex 44 Forum and meeting - Integrating Environmentally Responsive Elements in Buildings in HKU.
- ◆ 2007-2008, Student member of ASHRAE.
- ◆ 2004, Assist to prepare the Second international conference on Built Environment and Public Health (BEPH 2004 in Shantou, China).
- ◆ 2003, Assist to prepare the First international forum on Built Environment and Public Health (BEPH2003 in Changsha, China).
- ◆ 2002-2003, Assist to publish the book in HVAC&R Field “China HVACR Annual and Directory” as an editor.
- ◆ 2002-2005, English translator and editor for the HVAC&R website: <http://www.chinahvacr.com>
- ◆ 2001, Assist to prepare the 4th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC2001 in Changsha, China).

Rewards

- ◆ 2006, Excellent Thesis for Master Student of Hunan University
- ◆ 2004-2005, Excellent Postgraduate Student of Hunan Province
- ◆ 2004-2005, Excellent Postgraduate Student of Hunan University
- ◆ 2003-2004, Excellent Postgraduate Student of Hunan University
- ◆ 2001-2002, Civilized Student of Hunan University
- ◆ 2002, Excellent Innovative Thesis for Undergraduate Student of Hunan University
- ◆ 2000-2001, First-class Scholarship
- ◆ 1999-2000, Li Changlai Scholarship of Hunan University
- ◆ 1999-2000, First-class Scholarship
- ◆ 1998-1999, First-class Scholarship
- ◆ 1998-1999, Civilized Student of Hunan University
- ◆ 1998-1999, Excellent Student Leader of Hunan University
- ◆ 1998, Seventh Place in Department Student English Contest
- ◆ 1998, Second Place in Art Contest for Fresh Students

Publications

Published Journal Papers

- 1 **Yang Lina**, Yuguo Li. 2009. City ventilation of Hong Kong at no-wind conditions. *Atmospheric Environment* 43(19): 3111-3121.
- 2 **Yang Lina**, Yuguo Li. 2008. Cooling load reduction by using thermal mass and night ventilation. *Energy and Buildings* 40(11): 2052-2058.
- 3 **Yang Lina**, Pengcheng Xu, Yuguo Li. 2006. Nonlinear dynamic analysis of natural ventilation in a two-zone building: Part A – theoretical analysis. *HVAC&R Research* 12(2): 231-255.
- 4 **Yang Lina**, Yuguo Li, Pengcheng Xu, Guoqiang Zhang. 2006. Nonlinear dynamic analysis of natural ventilation in a two-zone building: Part B – CFD simulation. *HVAC&R Research* 12(2): 257-278.
- 5 Zhang Guoqiang, **Lina Yang**, Junli Zhou, Yoming Chen, Yuguo Li. 2006. Development and application of natural ventilation potential evaluation system. *Journal of Hunan University (Natural Sciences)* 33(1): 25-28. In Chinese.
- 6 **Yang Lina**, Guoqiang Zhang, Yuguo Li, Youming Chen. 2005. Investigating potential of natural driving forces for ventilation in four major cities in China. *Building and Environment* 40(6): 738-746.
- 7 Yu Likui, **Lina Yang**, Junli Zhou, Guoqiang Zhang. 2004. Research Development of Natural Ventilation Potential Analysis. *Refrigeration, Air Conditioning & Electric Power Machinery* 25(4): 18-22. In Chinese.
- 8 Chan Fan, Victor Cheung and Victor Law et al (Original), **Lina Yang** (Translate). 2004. Air distribution design in a SARS ward with multiple beds. *Building Energy & Environment* 23(1): 21-33. In Chinese.
- 9 Liu Jianlong, Guoqiang Zhang, **Lina Yang**. 2004. Review of evaluation method for IAQ, *Refrigeration, Air Conditioning & Electric Power Machinery* 25(2): 24-32. In Chinese.
- 10 Yu Likui, Guoqiang Zhang, **Lina Yang**. 2004. Research on assessment method of environmental performance of building systems. *Building Energy & Environment* 23(4):6-10. In Chinese.

Journal Papers under Preparation

- 11 **Yang Lina**, Yuguo Li. Correction methods of infrared thermography for exterior surfaces of buildings. To be submitted for a journal publication.
- 12 **Yang Lina**, Yuguo Li. A new method for estimating mixing height using the infrared thermography on a 420 m high building in Hong Kong. Prepared for *Atmospheric Environment*.
- 13 **Yang Lina**, Yuguo Li. Ventilation in a single Hong Kong model driven by wall and slope flows. Prepared for a journal publication.

Conference Papers

- 14 **Yang Lina**, Yuguo Li. Ventilation and thermal environment in a semi-enclosed open urban space. Accepted by Clima2010, the 10th REHVA World Congress “Sustainable Energy Use in Buildings”. Turkey: Antalya.
- 15 **Yang Lina**, Yuguo Li. Urban Surface Temperature Profiles in Hong Kong. Accepted by Clima2010, the 10th REHVA World Congress “Sustainable Energy Use in Buildings”. Turkey: Antalya.
- 16 Hang Jian, Yuguo Li, **Lina Yang**. 2010. Macroscopic numerical simulations of wind conditions in high-rise building clusters using a porous turbulence model. The 8th Asian Computational Fluid Dynamics Conference. China: Hong Kong.

- 17 **Yang Lina**. 2009. Thermal buoyancy driven city ventilation (Presentation). Chinese Annual Conference of Ventilation 2009. China: Guangzhou.
- 18 **Yang Lina**, Yuguo Li. 2009. Dependence of City Ventilation by Thermal Buoyancy on Thermal Stratification. In: Proceedings of the 6th International Symposium on Heating, Ventilating and Air Conditioning (ISHVAC 2009). China: Nanjing.
- 19 **Yang Lina**, Yuguo Li. 2009. Ventilation potential by thermal buoyancy in an urban city: numerical simulation and field experiment study. In: Proceedings of the Seventh International Conference on Urban Climate (ICUC-7). Japan: Yokohama.
- 20 **Yang Lina**, Yuguo Li. 2009. Ventilation efficiency by thermal buoyancy in a high-rise city with a complex terrain. In: Proceedings of the Fifth International Workshop on Energy and Environment of Residential Buildings and the third International Conference on Built Environment and Public Health (EERB-BEPH 2009). China: Guilin.
- 21 **Yang Lina**, Yuguo Li. 2007. Thermal environment and airflow in a semi-enclosed space surrounded by buildings – a numerical study. In: Proceedings of the 6th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings. Vol. I. Japan: Sendai, pp409-416.
- 22 Hang Jian, Yuguo Li, Sandberg Mats, Markus Rösler, **Lina Yang**. 2006. Understanding air exchange and pollutant dispersion in a very long street with a RNG $k-\varepsilon$ model. In: the 2nd Mega-cities International Conference 2006 – Challenges in Sustainability for Asian Cities: Urban Form and Lifestyle, Health and Environment. China: Guangzhou.
- 23 **Yang Lina**, Yuguo Li, Guoqiang Zhang, Youming Chen. 2005. Dependence of CFD Predictions on Initial Conditions for Turbulent Indoor Airflows and Pollutant Spread. In: Proceedings of Indoor Air 2005, the 10th International Conference on Indoor Air Quality and Climate. Vol III. China: Beijing, pp2690-2695.
- 24 **Yang Lina**, Yuguo Li, Guoqiang Zhang, Youming Chen. 2004. Dependence of CFD Predictions of Indoor Air Flow on Initial Conditions. In: Proceedings of BEPH 2004, Beijing: China Environmental Science Press.
- 25 **Yang Lina**, Junli Zhou, Guoqiang Zhang, Youming Chen and Likui Yu. 2004. Potential analysis of natural ventilation in China. In: Abstract proceedings of Chinese Annual Conference of HVAC. In Chinese.

Summary of Publications

Journal	Impact factor (ISI, 2008)	No. of papers	No. Citations
Atmospheric Environment	2.890	1	0
Building and Environment	1.192	1	8
Energy and Buildings	1.590	1	4
HVAC&R Research	0.637	2	2
Others		12	1
No. of journal papers		10	
No. of conference paper		8	Total citations
Total		18	15