

XU, Yuan
updated in August 2017

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Employment:

Aug 2016 – Associate Professor, Department of Geography and Resource Management, The Chinese University of Hong Kong; Hong Kong, China

Mar 2013 – Leader, Environmental Policy and Governance Programme; Jun 2011 – Present, Research Fellow, Institute of Environment, Energy and Sustainability, The Chinese University of Hong Kong; Hong Kong, China

Aug 2010 – Aug 2016 Assistant Professor, Department of Geography and Resource Management, The Chinese University of Hong Kong; Hong Kong, China

Feb 2010 – Aug 2010, Postdoctoral Research Associate, Industrial Performance Center, Massachusetts Institute of Technology; Cambridge, MA, U.S.A.
Supervisor: Edward S. Steinfeld

Education:

Ph.D. 2004-2010 Science, Technology and Environmental Policy, Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton, NJ, U.S.A.
Thesis: Democracy and the environment – A study of China's SO₂ emission goal and SO₂ scrubbers in the 11th Five-Year Plan
Supervisor: Robert H. Socolow, Committee: Robert H. Williams, Yiguang Ju; External reader: Catherine A. Peters

M.S. 2001-2004 Climatology, Department of Atmospheric Sciences, School of Physics, Peking University, Beijing, China
Thesis: Research on East Asian Monsoon Marginal Belt

B.S. 1997-2001 Atmospheric sciences, Department of Geophysics, Peking University, Beijing, China
Thesis: Study on the Precipitation Variability and its Causes in Seoul City

B.Econ. 1998-2001 Economics, China Center for Economic Research, Peking University, Beijing, China

Certificates:

Assistant Instructor Orientation to Teaching, Princeton University	Spring 2006
Special Class for Interdisciplinary Education in Natural Sciences, Peking University	1997-2000

Awards:

At The Chinese University of Hong Kong

2014 Young Researcher Award 2014 of The Chinese University of Hong Kong

At Princeton University:

2009 Best Presentation Award, Tokyo Institute of Technology Energy Global COE International Forum

2008-2009 Princeton Energy and Climate Scholars (PECS), founding scholar

2004-2009 Woodrow Wilson School Ph.D. fellowship

At Peking University

2004 Outstanding Graduate of Peking University(優秀畢業生)

2003 Award for Outstanding Learning(學習優秀單項獎)
Guanghua award(光華獎學金)

2002 Outstanding Student of Peking University(三好學生)
ING Antai award (ING 安泰獎學金)

2000 Outstanding Student of Peking University(三好學生),
Tung OOCL award (董氏東方獎學金)

1999 Award for Outstanding Learning(學習優秀單項獎)
Xie Yibin award(謝義炳獎學金)
Eaglet II award(雛鷹二等獎學金)

1998 Xie Yibin award(謝義炳獎學金)
Eaglet III award(雛鷹三等獎學金)

Membership and affiliation:

Professional Association for China's Environment (PACE), member of the Board of Directors, 2015 – 2019

International Association for Energy Economics, member, 2013 –

Chinese Society for Environmental Economics, committee member, 2011-

International Association for Impact Assessment, member, 2010 –

The Institute of Electrical and Electronics Engineers, member, 2009-2010

Teaching:

In the Chinese University of Hong Kong:

Undergraduate:

Department of Geography and Resource Management

1. GRMD 2404 Energy and society

Fall 2013, 2015, 2017

2. GRMD 3403 Methods for resource evaluation and planning

As the sole instructor

Spring 2013, 2015, Fall 2016

With Prof. LEUNG Yee

Spring 2011, 2012

XU, Yuan

3. GRMD 4401 Energy resources Fall 2010-2012, 2014, 2016
4. GRMD 1403 Resources, society and environment
As the course coordinator, teaching with many other colleagues Fall 2012-2015
As one of the instructors Fall 2016-2017
5. GRMD 2401/UGEC 2171 Sustainable development (with Prof. Lawal MARAFA)
Fall 2010-2013
6. GRMD 2001/3001 Field studies II/III
Gansu/Inner Mongolia/Qinghai Summer 2012
Three Gorges (with Prof. LIN Hui) Summer 2013
7. GRMD 1001 Field studies I (local field camp)
With Dr. Joanna LEE and Prof. HUANG Bo Winter 2010
With Dr. Joanna LEE and Prof. NG Mee Kam Winter 2011

General Education:

8. UGEC 2123 China's environmental crises (with Prof. WU Fengshi) Spring 2012
UGEB 2123 Environmental crises - China and the World (as the sole instructor)
Spring 2015 & 2016, Fall 2016
9. UGEB 2161 Resource issues in the age of globalization (w/ Prof. Lawal MARAFA)
Spring 2011-2013

United College:

10. GEUC 4011 Senior seminar, United College (Final Year Project) Fall 2011-2017

Energy and Environmental Engineering Program

11. SEEM 2540 Energy and Environmental Economics and Management Fall 2016

Postgraduate:

12. MPUP 5422 Environmental policy analysis (with Prof. LAM Kin-Che) Spring 2012-2017
13. GPEC 5120 Global Resources and Energy Term 3, 2017; Term 1, 2017
14. GPEC 5119 Economics of the World Energy Markets Term 3, 2017; Term 2, 2017

Guest lecture:

In the Chinese University of Hong Kong:

- "Global environmental issues", college general education
in GEJC 1120 College, University and Community Fall, 2011-2017
in GEUC 1011 University Life and Learning Fall, 2011-2013
- "Enforcing energy and environmental policies in China",
in GRMD 3202 Environmental Management March 26, 2015
- "Energy for transportation",
Hong Kong DSE (Diploma of Secondary Education) seminar January 26, 2013
- "Energy security and energy conservation",
Energy Engineering Programme, November 12, 2013

In other institutes:

- "China's SO₂ mitigation in coal-fired power plants", Hong Kong Baptist University
March 4, 2013; February 14, 2014; February 3, 2015; March 14, 2016

- “Economics in air pollution control and prevention”, City University of Hong Kong;
March 14, 2016
- “‘Wasting’ youth seriously”, Changzhou Education Center (to over 1000 high school students
and their parents)
March 21, 2015
- "Challenges and Opportunities of World CO₂ Mitigation", National Central University, Taiwan
May 28, 2014
- "Climate science, uncertainty and policy making", National Central University, Taiwan
May 29, 2014
- "The development of energy and environmental technologies", National Central University,
Taiwan
May 29, 2014
- “Comparative climate policy”, City University of Hong Kong
March 27, 2012

Service:

In the Department of Geography and Resource Management, CUHK

- Departmental seminar series, organizer, 2011 – 2013
- Air quality measurement station, faculty member in charge, 2011 – 2013
- Library committee, chair, 2010 – 2012
- Curriculum and teaching committee, member, 2010 –
- Global change and resource management concentration, coordinator, 2010 –
- Board secretary, 2013 – 2016

In the Faculty of Social Sciences, CUHK

- Undergraduate Global Studies programme, Programme committee, member, 2012 –
- Master of Social Science Program in Public Policy, Management committee member, 2013 –
- Faculty Board of Social Sciences, Elected representative of assistant professors, 2013 – 2015
- Pearl River Delta Social Research Center of the Department of Sociology, External Member,
March 2014 –
- Department of Government and Public Administration, Cat (2) board member, 2016 –

In the United College, CUHK

- College coordinator, 2013 – 2017
- Task Force on Multicultural Campus, member, 2014 – 2017

In the Institute of Environment, Energy and Sustainability, CUHK

- Management committee member, 2013 –

In the Universities Services Centre of China Studies (USC), CUHK

- Executive Committee, member, 2014 –

As a reviewer for academic journals and publishers

- Atmospheric Environment
- Applied Energy
- Asian Geographer
- Ecological Indicators
- Emerging Markets Finance and Trade

Energy
Energy Policy
Energy Strategy Reviews
Environmental Science and Technology
Environmental Science and Pollution Research
Environmental Modeling & Assessment
Impact Assessment and Project Appraisal
Journal of Cleaner Production
Journal of Environmental Monitoring
Journal of Transport Geography
National Academies of Sciences, Engineering, and Medicine of the United States
Natural Hazards
Nature Energy
Natural Resources Forum
New Political Economy
PLoS One
Polity
Renewable & Sustainable Energy Reviews
Resources, Conservation and Recycling
Routledge, Taylor & Francis Group
Scandinavian Journal of Forest Research
Science of Total Environment
The China Review
Urban Geography
Water International

Editorship

Guest Editor, special issue: Environmental Challenges and Potential Solutions of China's Power Sector, *Resources, Conservation & Recycling*, 8/2015 -- 10/2016

To my alma mater

Voluntary alumni interviewer for Princeton University's undergraduate admission, 2013 –

Supervision of students' research:

Undergraduate Final Year Thesis:

2016-2017 HUI, Ka Chun Cosmo; LAU, Chun Yin Edison; LIN, Lonnie Long Yin; LIU, Po Chun; TANG, Hio Man
2015-2016 GU, Yuan; HUI, Chi Hang Raymond; WONG, Pui Ting
2014-2015 DUEN, Long Yee Loree; HON, Chun Kit; KWOK, Tin Fai; WAN, Chi Yan
Jamie
2013-2014 LEE, Tsz Ho Tony; ZHU, Ruiyi Zita
2012-2013 CHAN, Wing Kwan Hannah; LAU, Ho Wah Kingston; LEUNG, Yin Kiu Kevin;
TAM, Kwan Yu Maverick; YEUNG, Chung Hang Ken
2011-2012 AU, Chak Lam Ivan; FU, Pui wai; LAW, Yuen Shan; YU, Hin Pik Fish

XU, Yuan

2010-2011 CHENG, Hoi Yee Heidi; CHUNG Ka Yan Clarice; TAM, Lim Yan; YEUNG, Chun Hoi Patrick

Postgraduate theses:

As a supervisor:

- 2017 – Aldilla Noor Rakhiemah (Dilla) (Ph.D.)
- 2017 – CHEN, Feihao (Ph.D. in the School of Architecture, supervising together with Prof. REN Chao)
- 2016 – MA, Jieqi (Ph.D., supervising together with Prof. CHEN Yongqin David)
- 2016 – KWOK, Tin Fai (MPhil)
- 2016 – WONG, Pui Ting (MPhil)
- 2013 – YANG, Zhenzhong (Ph.D., supervising together with Prof. HUANG, Bo)
- 2013 – 2017 ZHANG, Weishi (Ph.D.)
- 2013 – 2016 CUI, Yuanzheng (Ph.D., supervising together with Prof. HUANG, Bo)
- 2012 – 2015 GUO, Meiyu (Ph.D., supervising together with Prof. CHEN Yongqin David)
- 2011 – 2013 WONG, Ting Yin Tiffany (MPhil)

As an internal committee member or chair (only those who have completed are listed with the year of graduation)

- 2017 PAN, Jian (Ph.D., chair)
- 2015 BAYRAK, Mucahid Mustafa (Ph.D., member)
- 2015 LUI, Hui (Ph.D., member)
- 2014 LIN, LV (Ph.D., member)
- 2014 CHIU, Hoi Yan Hyley (MPhil, member)
- 2014 WANG, Juan (Ph.D., member)
- 2014 SONG, Chunqiao (Ph.D., chair)
- 2014 WANG, Lei (Ph.D., chair)
- 2013 LUI, Sau Kwan Augusta (MPhil, member)
- 2013 MENG, Lina (Ph.D., member)
- 2013 LAU, Hoi Lung Johnny (MPhil, member)
- 2012 CHAN, Foon Tung Dance (MPhil, member)
- 2011 FAN, Xiaopeng (MPhil, member)
- 2011 TSANG, Kai Ho Leo (MPhil, member)

As an external examiner:

- 2017 ZHANG Shengyuan (Ph.D., Hong Kong University of Science and Technology)
- 2017 DU Dijia Coco (Ph.D., Hong Kong University of Science and Technology)
- 2017 XU Meng (Ph.D., Hong Kong University of Science and Technology)
- 2013 YUE Pak Hong (MPhil, The University of Hong Kong)

Papers in peer-reviewed journals:

Researcher ID: <http://www.researcherid.com/rid/H-4329-2011>

ResearchGate: https://www.researchgate.net/profile/Yuan_Xu8

Underlined names indicate my students, postdocs or research assistants; * indicates

corresponding author

1. Liu, X., Y. Leung, **Y. Xu**, L. C. W. Yung, 2017. The effect of carbon tax on carbon emission abatement and GDP: a case study. *Journal of Geographical Systems*. DOI: 10.1007/s10109-017-0254-1
2. Kwok, T. F., C. H. Yeung, **Y. Xu ***, 2017. Swaying Public Opinion on Nuclear Energy: A Field Experiment in Hong Kong. *Utilities Policy*. 46: 48-57.
3. Wong, T. Y., **Y. Xu ***, Y. Chang, 2017. Cross-Boundary Air Pollution Control under "One Country, Two Systems": Perspectives from Hong Kong-Guangdong Collaboration, *The Singapore Economic Review*, Accepted.
4. **Xu, Y. ***, 2017. Climate Change as a Flagship Opportunity for Domestic Governance. *Environmental Science & Technology*. 51(4):1946–1947.
5. Liu, X., Z. Yuan, **Y. Xu**, S. Jiang, 2017. Greening cement in China: A cost-effective roadmap. *Applied Energy*. 189: 233-244.
6. Kwok, T. F., **Y. Xu***, P. T. Wong, 2017. Complying with Voluntary Energy Conservation Agreements (II): Lighting in Hong Kong's Shopping Malls. *Resources, Conservation and Recycling*. 117: 225-234.
7. Kwok, T. F., **Y. Xu***, P. T. Wong, 2017. Complying with Voluntary Energy Conservation Agreements (I): Air Conditioning in Hong Kong's Shopping Malls. *Resources, Conservation and Recycling*. 117: 213-224.
8. He, G.* , H. Zhang*, **Y. Xu***, X. Lu*, 2017. China's clean power transition: Current status and future prospect. *Resources, Conservation and Recycling*. 121: 3-10.
9. He, G., H. Zhang, **Y. Xu**, X. Lu, 2017. Editorial: Clean power transition in China. *Resources, Conservation and Recycling*. 121: 1-2.
10. Guo, M., **Y. Xu***, Y. D. Chen, 2017. Catching environmental noncompliance in shale gas development in China and the United States. *Resources, Conservation and Recycling*. 121:73-81
11. Meng, J., J. Liu, **Y. Xu**, D. Guan, Y. Huang, S. Tao, 2016. Globalization and Pollution: Tele-connecting Local Primary PM_{2.5} Emissions to Global Consumption. *Proceedings of the Royal Society A*. 472: 20160380.
12. Guo, M., X. Lu, C. P. Nielsen, M. B. McElroy, W. Shi, Y. Chen, **Y. Xu**, 2016. Potential for Shale Gas Production in China: Demands for Water. *Renewable and Sustainable Energy Review*. 66: 742–750.

13. **Xu, Y.***, J. Liu*, 2016. Evaluating and addressing the leakage problems of black carbon mitigation in China's domestic sector, *Environmental Science & Technology*. 50(11): 5434–5435.
14. Li, Y., J. Meng, J. Liu*, **Y. Xu**, D. Guan, W. Tao, Y. Huang, S. Tao, 2016. Interprovincial Reliance for Improving Air Quality in China: A Case Study on Black Carbon Aerosol, *Environmental Science & Technology*, 50 (7): 4118–4126.
15. Wang, H., Z. Dong*, **Y. Xu***, C. Ge, 2016. Eco-compensation for Watershed Services in China, *Water International*, 41(2): 271-289.
16. Zhang, B.*, H. Fei, P. He, **Y. Xu***, Z. Dong, O. R. Young, 2016. The Indecisive Role of the Market in China's SO₂ and COD Emissions Trading Markets, *Environmental Politics*, 25(5): 875-898.
17. Cui, Y.-Z., Lin, J.-T., Song, C., Liu, M.-Y., Yan, Y.-Y., **Xu, Y.**, and Huang, B., 2016. Rapid growth in nitrogen dioxide pollution over Western China, 2005–2013, *Atmospheric Chemistry and Physics*, 16, 6207–6221.
18. **Xu, Y.***, G. Liu, 2015. Carbon capture and storage for Hong Kong's fuel mix. *Utilities Policy*, 36: 43-45
19. Meng, J., J. Liu*, **Y. Xu**, S. Tao, 2015. Tracing Primary PM_{2.5} emissions via Chinese supply chains. *Environmental Research Letters*, 10(5): 054005.
20. Wu, D., **Y. Xu***, Y. Leung, and C.-W. Yung, 2015. The Behavioral Impacts of Firm-level Energy-conservation Goals in China's 11th Five-Year Plan. *Environmental Science & Technology*, 49(1):85–92.
21. Wu, D., **Y. Xu**, S. Zhang, 2015. Will joint regional air pollution control be more cost-effective? An empirical study of China's Beijing–Tianjin–Hebei region. *Journal of Environmental Management*, 149:27–36.
22. Guo, M. Y., **Y. Xu*** and Y. Q. D. Chen, 2014. Fracking and Pollution: Can China Rescue Its Environment In Time? *Environmental Science & Technology*, 48(2): 891-892.
23. **Xu, Y.***, 2013. Comparative advantage strategy for rapid pollution mitigation in China, *Environmental Science & Technology*, 47 (17): 9596–9603
24. Wu, F. *, **Y. Xu**, 2013. Sino-American Environmental Relations: The potential of Trans-Societal Linkages. *Issues and Studies*, 49(3): 73–110
25. **Xu, Y.***, Yang, C.-J., and Xuan, X., 2013. Engineering and optimization approaches to enhance the thermal efficiency of coal electricity generation in China, *Energy Policy*, 60: 356–363.

26. **Xu, Y.***, 2013. Using performance indicators to reduce cost uncertainty of China's CO₂ mitigation goals, *Energy Policy*, 53: 454–461.
27. **Xu, Y.***, 2011. China's functioning market for sulfur dioxide scrubbing technologies, *Environmental Science & Technology*, 45(21): 9161–9167.
28. **Xu, Y.***, 2011. Improvements in the operation of SO₂ scrubbers in China's coal power plants, *Environmental Science & Technology*, 45(2): 380–385.
29. **Xu, Y.***, 2011. The use of a goal for SO₂ mitigation planning and management in China's 11th Five-Year Plan, *Journal of Environmental Planning and Management*, 54(6): 769-783.
30. **Xu, Y.***, R.H. Williams, R.H. Socolow, 2009. China's Rapid Deployment of SO₂ Scrubbers, *Energy and Environmental Science*, 2, 459-465.
31. Qian, W. H., X. Lin, Y.F. Zhu, **Y. Xu**, and J. L. Fu, 2007. Climatic regime shift and decadal anomalous events in China, *Climatic Change* 84:167-189.
32. **Xu, Y.***, W.H. Qian, 2003. Research on East Asian summer monsoon marginal belt: a review, *Acta Geographica Sinica* 58: 138-146 (東亞季風邊緣活動帶研究綜述,地理學報)
33. Li, Y., **Y. Xu**, W.H. Qian, 2003. Dry and wet climatic changes of western China in recent 300 years, *Plateau Meteorology* 22(4): 371-377 (近 300 年來中國西部氣候的乾濕變化, 高原氣象)

Conference proceedings:

1. **Xu, Y.***, J. Song, W. Zhang, 2014. Decomposing the impacts of time use on energy consumption. *Energy Procedia*, 61:1888-1892.
2. **Xu, Y.**, 2009, The Performance of China's SO₂ scrubbers at Coal Power Plants, *Environmental Pollution and Public Health Conference (EPPH 2009)*, Beijing, China, June 14-16, Page 1-4, DOI: 10.1109/ICBBE.2009.5163639.
3. **Xu, Y.**, 2009, Predictability and China's legally binding goal of CO₂ emissions, *China and Global Climate Change: Reconciling International Fairness and Protection of the Atmospheric Commons*, Lingnan University, Hong Kong, China; June 18-19.

Other papers:

1. **Xu, Y.**, 4 June 2017. Trump's climate loss is a huge gain for China, *The Globe and Mail*, <https://www.theglobeandmail.com/opinion/trumps-climate-loss-is-a-huge-gain-for-china/article35198923/>

2. **Xu, Y.**, 11 August 2016. Understanding China's climate change commitment, *East Asia Forum*. <http://www.eastasiaforum.org/2016/08/11/understanding-chinas-climate-change-commitment/>
3. Gregory Chow and **Xu, Y.**, August 2014, Problems and solutions on China's environmental protection (中國的環保問題與對策), 金融時報中文版
4. Chi-Jen Yang and **Xu, Y.**, 2013, Guangdong's Energy Outlook in China's Context, Civic Exchange
5. Fengshi Wu and **Xu, Y.**, 2011, U.S.-China Environmental Relations, paper presented at the U.S.-China Relations Workshop organized by the Association of Chinese Political Science and the Hong Kong Institute of Education. 15 pgs. Hong Kong, November 2011
6. **Xu, Y.**, R. H. Williams, 2007, Breaking Through the Limitations of China's Coal and Water Resources on Coal-to-Liquids Projects, for the partial fulfillment of Ph.D. candidature at Princeton University
7. J. Domanski, J., Jemelkova, B., Johnson, S., Lanning, M., Li, J., Meginness, S., Peterson, G., Wiafe, K., **Xu, Y.**, and Yang, C., 2005, Breathing Easier in Rural China: Analysis of Options for Reducing Indoor Air Pollution from Burning Solid Fuels. Prepared for the *Energy Sector Management Assistance Program of the World Bank*

Research funding:

As a principal investigator (PI):

1. Jan 2017 – Dec 2019, General Research Fund, Hong Kong Research Grants Council; Title: Integrating satellite data for compliance monitoring on CO₂, SO₂ and NO_x in China's emission hotspots: A case study; Total amount: HK\$907,488
2. Jan 2016 – Dec 2017, Germany/Hong Kong Joint Research Scheme 2015/16, Hong Kong Research Grants Council; Title: The National Strategies in China and Germany to Utilize Solar Energy and Develop Photovoltaic Industries; Total: HK\$89,600; German collaborator: Prof MÖST Dominik from Technische Universität Dresden.
3. Jan 2016 – Dec 2017, General Research Fund, Hong Kong Research Grants Council; Title: Measuring and narrowing the gaps between reality and the ideal: residential black carbon mitigation in rural China; Total amount: HK\$390,000; (Additional funding: Jan 2016 – Jun 2017, Postdoctoral Fellowship Scheme, Faculty of Social Science, The Chinese University of Hong Kong; Total amount: HK\$246,413)
4. Apr 2015 – Dec 2015, Research Fund on Evaluating and Managing Environmental Performance in China, The Chinese Academy of Environmental Planning, The Ministry of Environmental Protection of China; Title: Theoretical exploration on managing environmental performance; Total amount: RMB 80,000

5. Aug 2015 – Jul 2016, National Geographic Air and Water Conservation Fund, National Geographic Society; Title: Repair the roof before it rains -- Regulating water consumption and pollution for shale gas development in Xinjiang; Total amount: US\$17,625
6. Jun 2015 – Nov 2015, Public Policy Research Funding Scheme, Central Policy Unit; Title: Enforcing and Complying with Voluntary Agreements as an Alternative Environmental Policy Instrument; Total amount: HK\$195,332
7. Sep 2014 – Aug 2016, South China Programme, Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong; Title: Defining the Relationship between the State and the Market for Effective Pollutant Emission Trading in China; Total amount: HK\$151,080
8. May 2014 – Dec 2014, Grant for Applying Environmental Strategic Research, The Chinese Academy of Environmental Planning, The Ministry of Environmental Protection of China; Title: Theories for managing the performance of environmental governance; Total amount: RMB 100,000
9. Aug 2014 – Jul 2016, Social Science Collaborative Research Fund, The Chinese University of Hong Kong; Title: Conformists or Deviants? – The Behavior and Underlying Mechanisms of Polluting Firms in the Pearl River Delta Region; Total amount: HK\$172,074
10. Jun 2014 – May 2016, Direct Grant for Research, Social Science Panel, the Chinese University of Hong Kong; Title: Using remote sensing technologies to screen China's coal-fired power plants for environmental policy enforcement; Total amount: HK\$69,600
11. Jan 2011 – Dec 2012, Direct Grant for Research, Social Science Panel, the Chinese University of Hong Kong; Title: Competition between China and the United States in a carbon-constrained world; Total amount: HK\$58,320; Code: C001-2021063
12. Summer 2009, Dissertation Research Travel fund, Department of East Asian Studies, Princeton University; Title: China's SO₂ emission goal and SO₂ scrubbers in the 11th Five-Year Plan; Total amount: US\$1,000

As a co-investigator (co-I):

13. Jan 2014 – Dec 2014, Worldwide Universities Network Research Development Fund Grants 2013, Title: Developing compatible energy and climate strategies; Total amount: £8,000
14. Jan 2012 – Aug 2016, National Basic Research Program of China ("973"); Title: The mechanism complexity, the new integrated assessment model and policy simulation platform on climate change economics; Total amount: RMB20,000,000; Code: 2012CB955800
15. Jan 2012 – Jun 2013, Knowledge Transfer Fund, the Chinese University of Hong Kong, Title: Promoting Solar Energy Mapping in Hong Kong, Project ID: 3230099, Ref. No. : KTP111206F39, Total amount: HK\$200,000.

Other research-related grants:

16. Jan 2017, University Academic Exchange Fund (China), The Chinese University of Hong Kong, Purpose: to host Prof. Liao Xianchun from Jinan University to visit CUHK for two weeks and building collaboration
17. Nov 2016 – Dec 2016, United College Resident Fellow Scheme, The Chinese University of Hong Kong, Purpose: to host Prof. Xue Bing from the Institute of Applied Ecology, Chinese Academy of Sciences to visit CUHK for two months and build collaboration
18. Jan 2016 – Feb 2016, Internationalization Faculty Mobility Schemes: Short-term Faculty Exchange Programme for 2015-16, The Chinese University of Hong Kong, Purpose: to visit the University of Sydney, Australia for a week, Host: Prof. Tiho Ancev at the School of Economics, the University of Sydney
19. Jul 2015 – May 2016, United College Student Campus Training and Service Award Scheme 2015-16, The Chinese University of Hong Kong, Title: Energy Consumption and Time Use for Transportation in Hong Kong; Total amount: HK\$7,700
20. Dec 2014, CUHK Outbound Research Mobility Scheme for 2014-15, Purpose: to visit the Kyushu University, Japan for two weeks, Host: Prof. HORII, Nobuhiro at the Faculty of Economics, Kyushu University
21. Jul 2014 – May 2015, United College Student Campus Training and Service Award Scheme 2014-15, The Chinese University of Hong Kong, Title: Monitoring, Reporting and Verification of Energy Facilities' Environmental Impacts in Hong Kong; Total amount: HK\$8,000

Conference presentations, invited talks, panel discussion:

1. “International Energy Innovation System along the Maritime Silk Road”, Seminar talk, Energy Research and Development Institute – Nakornping, Chiang Mai University, Chiang Mai, Thailand, July 19, 2017
2. “Comparative Advantage Strategy for Achieving Energy and Environmental Goals in China”, Seminar talk, Faculty of Business and Economics, Technical University of Dresden, Dresden, Germany, June 1, 2017.
3. “Comparative Advantage Strategy for Achieving Energy and Environmental Goals in China”, Seminar talk, Institute of Advanced Sustainability Studies, Potsdam, Germany, May 30, 2017.
4. “Utilizing coal resources in Xinjiang: An integrated plan to breach economic, water and CO₂ constraints”, 5th International Symposium On Environment Energy & Finance Issues, Paris, France, May 22-23, 2017.
5. “Comparing the national strategies in China and Germany to utilize solar energy and develop

- photovoltaic industries”, 2nd HAEE International Conference: The Landscape In The New Era Of Energy Transition: Challenges, Investment Opportunities And Technological Innovations, Athens, Greece, May 18-20, 2017.
6. “Energy Collaboration in the One Belt One Road initiative”, The 5th China Strategic Environmental Assessment Forum: Enhancing Regional Sustainability through SEA, Hong Kong, China, May 11-12, 2017.
 7. “Enforcing and complying with voluntary agreements as an alternative environmental policy instrument”, Central Policy Unit Public Policy Research (PPR) Funding Scheme Sharing Forum, Hong Kong, China, May 10, 2017.
 8. “Understanding the behaviors of oil and gas firms on water sustainability under different state-market relationships”, 21st International Research Society on Public Management Conference, Budapest, Hungary, April 19-21, 2017.
 9. “Energy Collaboration in the One Belt One Road initiative”, Seminar talk, College of Business and Economics, Qatar University, Doha, Qatar, April 17, 2017
 10. “Explaining Chronic Non-compliance of Polluting Firms in Guangzhou”, Workshop on “Policy Instruments for Pollution Control in China: Design, Implementation and Impact”, Hong Kong University of Science and Technology (HKUST), Hong Kong, China, March 3 - 4, 2017.
 11. “The Swing of Public Opinion on Nuclear Energy: A Field Experiment in Hong Kong”, Asia-Pacific Public Policy Network conference 2017; Chiang Mai University, Chiang Mai, Thailand, February 10-11, 2017.
 12. “Climate Change as a Great Villain”, Open speech, Workshop on “Mobilizing the co-benefits of climate change in urbanizing China: visualizing regional benefits related to energy, water, and quality and value creation”, Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang, China, September 23-24, 2016
 13. “Toward a more general theory of energy and environmental policy enforcement and compliance”, seminar talk, School of Government, Peking University; Beijing, China, September 19, 2016
 14. “Repair the Roof Before it Rains -- Regulating Water Consumption and Pollution for Shale Gas Development in Xinjiang, China” & "Next-Generation Environmental Enforcement Strategies for Next-Generation Compliance Monitoring Technologies", Kharzar University, Baku, Azerbaijan, September 1st, 2016.
 15. “Repair the Roof Before it Rains -- Regulating Water Consumption and Pollution for Shale Gas Development in Xinjiang, China”, 1st IAEE Eurasian Conferences: Energy Economics Emerging from the Caspian Region: Challenges and Opportunities, Baku, Azerbaijan, August 28th to 31st, 2016.

16. "Toward a more general theory of energy and environmental policy enforcement and compliance", 2016 Workshop on Environmental Economic Policies in China, The Chinese Association of Environmental and Resource Economists (CAERE), Shenzhen, China, July 12-13, 2016
17. "Payments for Watershed Services in China", PACE 2016: International Conference on Environmental Governance in China, Ningbo, China, June 12-14, 2016
18. "The Chronic Environmental Non-compliance of Polluting Firms in Guangzhou, China", HKU-USC-IPPA Conference on Public Policy Coping with Policy Complexity in the Globalized World, Hong Kong, China, June 10-11, 2016
19. "Impacts of Existing Policies on Emissions Trading", The 36th Annual Conference of the International Association for Impact Assessment, Impact Assessment: Resilience and Sustainability, Nagoya, Japan, May 11-14, 2016.
20. "Next-Generation Environmental Enforcement Strategies for Next-Generation Compliance Monitoring Technologies", The 20th Annual Conference of IRSPM (International Research Society on Public Management), Hong Kong, China, April 13-15, 2016.
21. "An invisible hand of governance for energy development and pollution mitigation in China", Advanced Workshop on Cities, Environment and Sustainability, The Chinese University of Hong Kong, Hong Kong, China, April 11, 2016.
22. "Next-Generation Environmental Enforcement Strategies For Next-Generation Compliance Monitoring Technologies", The Annual Conference of the Association of American Geographers, San Francisco, United States, March 29-April 2, 2016.
23. "A national strategy on the enforcement of energy and environmental policies", Climate Science, Adaptation and Mitigation in the Era of Paris Agreement, Shenzhen, China, March 19-20, 2016
24. "The One Belt One Road Strategy: Challenges and opportunities for environmental researchers, practitioners and job seekers", Seminar talk jointly given together with Prof. Kin-Che Lam, Department of Geography and Resource Management, The Chinese University of Hong Kong, Hong Kong, China, March 17, 2016.
25. "Compliance decisions on voluntary energy conservation agreements in Hong Kong's shopping malls", The 5th IAEE (International Association for Energy Economics) Asian Conference, Perth, Australia, February 14-17, 2016.
26. "Enforcing environmental policies in China – The "indecisive" role of the market in SO₂ and COD emissions trading", the 60th National Conference of the Australian Agricultural & Resource Economics Society (AARES), Canberra, Australia, February 3-5, 2016.

27. "Enforcing energy and environmental policies in China", China Studies Centre, University of Sydney, Sydney, Australia, January 27, 2016.
28. "Enforcing and complying with voluntary energy conservation agreements", Seminar series, Department of Geography and Resource Management, The Chinese University of Hong Kong, Hong Kong, China, November 23, 2015.
29. "Energy Transition in China: Driver, Consumption and Supply", Energy Transformation Roundtable Discussion on Comparative Analysis of Energy Transformation Policy: China, Germany, E.U., and U.S., Rock Environment and Energy Institute, Beijing, China (online presentation), November 3, 2015
30. "Implementing environmental policy in China" (keynote presentation), PACE 2015 International Symposium on Environmental Economics and Policy in China & 5th Summer Camp for Chinese Environmental and Resource Economists, Nanjing, China, July 11-13, 2015.
31. "Evaluating the Effectiveness of SO₂ and NO_x Mitigation Measures in China's Coal-Fired Power Plants", the 4th Academic Forum on China's Strategic Environmental Assessment, Chengdu, China, July 2-3, 2015.
32. "Energy System in China", Energy Transformation: China – Germany – Japan, Japanese-German Center Berlin [JDZB] and Mercator Institute for China Studies [MERICS], Berlin, Germany, June 9, 2015.
33. "Vacating the Cage to Change Birds: The Behavior of Polluting Firms in the Pearl River Delta", International Conference on Labour, Mobility and Development in PRD and Beyond, Hong Kong, China, June 6-7, 2015.
34. "Improving China's MRV system on coal power plants", Impact Assessment in the Digital Era - 35th Annual Conference of the International Association for Impact Assessment, Florence, Italy, April 20-23, 2015.
35. "Building more effective Hong Kong-Guangdong collaboration for cross-boundary air pollution control", Conference on Regional Environmental Initiatives in East Asia and their Impact on Regionalism, The Chinese University of Hong Kong, Hong Kong, China, March 20, 2015
36. "Enforcing energy and environmental policies in China", Earth System Science Program, The Chinese University of Hong Kong, Hong Kong, China, March 13, 2015
37. "Implementing China's Energy Shift: Strategies, Barriers and Impacts", Workshop on *Global Shift: Energy Productivity Hidden Revolution*, King Abdullah Petroleum Studies and Research Center (KAPSARC), Riyadh, Saudi Arabia, February 11, 2015
38. "A comparative advantage strategy for rapid pollution mitigation in China", Kyushu

University, Fukuoka, Japan, December 16, 2014

39. "Enforcing and complying with energy and environmental policies in China", University of Bergen, Bergen, Norway, November 27, 2014
40. "Enforcing and complying with energy and environmental policies in China", Hong Kong Baptist University, Hong Kong, China, October 16, 2014
41. "Enforcing and complying with energy and environmental policies in China", China University of Petroleum-Beijing, Beijing, China, September 21, 2014
42. "Overcoming the Bounded Rationality of China's Energy-Intensive Firms through Goals", the 4th IAEE Asian Conference, Beijing, China, September 19-21, 2014
43. "Decompose the impacts of time use on energy consumption", the 6th International Conference on Applied Energy, Taipei, Taiwan, May 31-June 2, 2014
44. "The enforcement of energy and environmental policies in China", Pontifical Catholic University of Chile, Santiago, Chile, April 11, 2014
45. "Environmental Enforcement Campaigns in China", Impact Assessment for Social and Economic Development - 34th Annual Conference of the International Association for Impact Assessment, Vina Del Mar, Chile, April 8-11, 2014
46. "Biased information and the public attitude toward nuclear power", BEC Policy Dialogue Series: Fuel Mix, Business Environment Council, Hong Kong, China, March 3, 2014
47. "Shale gas development in China and its environmental regulation", Exploring Alternative Fuel Vehicles in Hong Kong Seminar 1: Liquefied Natural Gas, Environmental Management Association of Hong Kong, Hong Kong, China, March 1, 2014
48. "A comparative advantage strategy for rapid pollution mitigation in China", The 4th International Workshop on Regional Air Quality Management in Rapidly Developing Economic Regions, Hong Kong, China, January 14-17, 2014
49. "Regulating environmental impacts of shale gas development in China", Regional EIA Symposium - Shaping EIA for the Future, Hong Kong, China, January 9-11, 2014
50. "Guangdong's Energy Outlook in China's Context", American Chamber of Commerce Energy Committee, Hong Kong, China; October 21, 2013
51. "The cost-benefit analysis of environmental regulations on shale gas development", Annual Conference of the Chinese Society for Environmental Economics, Enshi, China, October 17, 2013
52. "The Cost-effectiveness of the Clean Air Plan", Achieving a Clean Air Hong Kong – A

seminar on “A Clean Air Plan for Hong Kong”, Environmental Management Association of Hong Kong, Hong Kong, China, September 28, 2013

53. "The Enforcement of energy and environmental policies in China", Chinese Academy for Environmental Planning, Beijing, China, September 26, 2013
54. "The diverging low-carbon race in China and the World", Inter-University Seminar on Asian Megacities - Asian Urbanism and Beyond, Hong Kong, China; August 15-17, 2013
55. "A comparative advantage strategy for rapid pollution mitigation in China", American Chamber of Commerce Environment Committee, Hong Kong, China; July 23, 2013
56. "A comparative advantage strategy for rapid pollution mitigation in China", International Symposium of Environmental Economics and Policy in China - Fourth Summer Camp of Chinese Environmental and Resource Economists, Dalian, China; July 14-17, 2013
57. "Regulating the environmental impacts of shale gas development in China", the Third Academic Forum on Strategic Environmental Assessment in China, Kunming, China; July 11-12, 2013
58. "Guangdong's energy outlook in China's context", Civic Exchange Public Forum, Hong Kong, China; July 6, 2013
59. "China's pollution mitigation and Asia Pacific's environmental security", the Eighth International Convention of Asia Scholars (ICAS 8), Macau, China; June 24-27, 2013
60. "China's determination to curb air pollution", China Radio International, "Today" on Beyond Beijing, panel discussion on the radio, June 24, 2013
61. "Guangdong's energy outlook in China's context", Civic Exchange, Hong Kong, China; February 23, 2013
62. "A comparative advantage strategy for rapid pollution mitigation in China", Institute of Space and Earth Information Science, the Chinese University of Hong Kong, Hong Kong, China; January 18, 2013
63. "A Comparative Advantage Strategy for China's Fast Pollution Mitigation", 2012 Climate Change Symposium, Hong Kong, China; November 27-28, 2012
64. "The transfer of SO₂ scrubbing technologies to China", 14th Annual Meeting of China Association for Science and Technology, Shijiazhuang, China; September 8-9, 2012
65. "China's pollution mitigation and Asia Pacific's environmental security", "Asia Pacific: Political Development and Security Issues" Workshop, the Chinese University of Hong Kong, Hong Kong, China; June 11, 2012

66. "Environmental impacts of China's SO₂ scrubbers", 32nd annual conference of the International Association for Impact Assessment, IAIA12 Energy Future: The Role of Impact Assessment; Porto, Portugal; May 27-June 1, 2012
67. "Engineering vs. optimization approaches in China's energy conservation and pollution mitigation", Tongji University, Shanghai, China; April 26, 2012
68. "Improvements in the operation of SO₂ scrubbers in China's coal-fired power plants", the 16th Conference on SO₂, NO_x, Hg, and PM controlling technologies, Xiamen, China; March 23, 2012
69. "Engineering vs. optimization approaches in China's energy conservation and pollution mitigation", Institute of Urban Environment, the Chinese Academy of Sciences, Xiamen, China; March 22, 2012
70. "China's unexpected attainment of a SO₂ mitigation goal in the 11th Five-Year Plan", School of Public Health, the Chinese University of Hong Kong, Hong Kong, China; March 13, 2012
71. "The emergence of China's SO₂ scrubber industry", Development of Green Industries in Asian region: the needed factors and what policies can do, Institute of Developing Economies; Bangkok, Thailand; February 22, 2012
72. "Improvements of CO₂ control performance in coal power plants in China and the United States", The Sixth Cross-Strait Forum on the Humanities and Social Sciences, Hong Kong, China; November 20, 2011
73. "Major factors for reducing China's CO₂ emission intensity of coal electricity in the past decade", InnoAsia 2011, Tech Forum 3: Industry & Manufacturing Smart Solutions for Reduced Environmental Impact & Cost Saving, panel discussion; Hong Kong, China; November 16, 2011
74. "China's market for transferring SO₂ scrubbing technologies", Industrial Co-Development: Multinational corporations' manufacturing strategies in China and their recursive effects on home country production, University of Chicago Beijing Center, Beijing, China; July 15, 2011
75. "Are China's SO₂ scrubbers running", Hong Kong Geography Day, Hong Kong, China; November 27, 2010
76. "Comments on Hong Kong's plan to reduce CO₂ emissions in the power sector", panel discussion in the "*Public Consultation Forum on Hong Kong's Climate Change Strategy and Action Agenda*", Environmental Management Association of Hong Kong, The University of Hong Kong, Hong Kong, China; November 20, 2010
77. "Energy crises", Public lecture, the Chinese University of Hong Kong, Hong Kong, China; November 17, 2010

78. "How did China achieve its SO₂ emission goal in the 11th Five-Year Plan?" The Chinese University of Hong Kong, Hong Kong, China; April 19, 2010
79. "Can China meet tough environmental goals? – A case of SO₂ scrubbers in coal power plants", 2nd Global COE International Forum for Energy Science, Okinawa, Japan; December 16, 2009
80. "How does China make SO₂ scrubbers operate in the 11th Five-Year Plan", 2nd Princeton-China EEE forum, Shanghai, China; November 4, 2009
81. "China's SO₂ mitigation at coal power plants in the 11th Five-Year Plan", Harvard University; Cambridge, MA; September 24, 2009
82. "The Performance of China's SO₂ scrubbers at Coal Power Plants", *Environmental Pollution and Public Health (EPPH 2009)*, Beijing, China, June 16, 2009
83. "SO₂ mitigation in China's 11th Five-Year Plan and the implications for future CO₂ mitigation", Chongqing University, Chongqing, China; June 12, 2009
84. "China's environmental commitment and SO₂ mitigation story", *CMI (Carbon Mitigation Initiative) 8th annual meeting*, Princeton, NJ; February 11, 2009
85. "China's rapid deployment of SO₂ scrubbers and implications for carbon mitigation", 1st Princeton-China EEE forum, Princeton, NJ; April 18, 2008

Other Working Experiences:

Teaching Assistant

1. Princeton University, a graduate course "The Use of Science in Environmental Policy", Princeton, NJ, Instructor: Denise L. Mauzerall Spring semester 2006
2. Princeton University, a graduate course "Living in a greenhouse: Technology and Policy", Princeton, NJ, Instructor: Robert H. Socolow Fall semester 2006

Policy Analyst

Fall semester 2004

Graduate consulting project on "phasing out solid fuels in rural China", Princeton & China;
Member of an 11-person graduate team analyzing rural environmental damages due to energy consumption in China for the Energy Sector Management Assistance Program of the World Bank

Research Assistant

2001-2003

Peking University, Beijing, China, Professor: Weihong Qian
Research focus: El Nino/Southern Oscillation; East Asian Monsoon