

YUE QIN

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Research Interests

Energy-Food-Water Nexus

Air Quality, Human Health, Climate and Water Impacts of Energy Policies

Integrated Assessment; Lifecycle Assessment; Emission Inventory

Short-lived Climate Forcers, Natural Gas Industry

Education

Princeton University, New Jersey, United States

09/2017

Ph.D. Candidate in Public Administration, **Science, Technology and Environmental Policy** Program (STEP)

Woodrow Wilson School of Public Policy and International Affairs (GPA: **3.9/4**)

Peking University, Beijing, China

09/2009-07/2012

M.S. in **Environmental Science**

College of Environmental Science and Engineering (GPA: **91/100**)

Graduate with **Honors**

Beijing Normal University, Beijing, China

09/2005-06/2009

B.E. in **Environmental Engineering**

School of Environment (GPA: **91/100**)

Graduate with **Honors**

Academic Research

International Institute for Applied Systems Analysis

Young Scientists Summer Program

06/2016-09/2016

- Explored the **air quality-carbon-water nexus** of natural gas source choices and deployment strategies in China

Princeton University

Research Assistant

08/2012-11/2017

Regional **air quality** and associated **human health**, and global **climate** implications of natural gas policies

- Establish **lifecycle air pollutants and greenhouse gas emission inventory** for China's various gas sources
- Design natural gas **sectoral** allocation strategies across the **power**, residential, and industrial sectors to **maximize** air quality, human health and climate **co-benefits** from natural gas substitution for coal

Princeton & Peking University

Research Assistant

10/2010-08/2014

Environmental Impacts of **Black Carbon** Mitigation

- Informed national and international institutions on **prioritizing black carbon mitigation** strategies by evaluating its impacts on air quality, human health, and deposition on glaciers
- Surveyed and analyzed data of **energy use** across **economic sectors** for building historical black carbon emission inventories (*China's 973 Program*)

Peking University & China's Environmental Planning Academy

Research Assistant

04/2010-12/2010

- Established a **multi-factor designation method** for mapping pollution control zones using **statistic methods** for **criteria air pollutants** including PM₁₀, SO₂, and NO_x
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Publications

- **Y. Qin**, F. Wagner, N. Scovronick, W. Peng, J. Yang, T. Zhu, K.R. Smith, D.L., Mauzerall, (2017), **Air quality, human health and climate** implications of China's **synthetic natural gas** development. *PNAS* 114 (19): 4887-4892
- **Y. Qin**, R. Edwards, F. Tong, D.L., Mauzerall (2017), Can switching from **coal** to **shale gas** bring net **carbon reductions** to China? *Environmental Science & Technology* 51 (5): 2554-2562
- **Y. Qin**, F. Tong, G. Yang, D.L., Mauzerall (2017), **Challenges of using natural gas as a carbon mitigation option in China**; *in review*
- **Y. Qin**, Y.Y. Fang, V. Naik, L. Horowitz, J. Liu, D. L., Mauzerall (2017), Impacts of **global, regional and sectoral black carbon** emissions on **air quality, premature mortality and glacial deposition**; *in review*
- **Y. Qin**, et al. (2017), **The Air, Carbon, Water Synergies and Trade-offs** in China's Natural Gas Industry; *in review*.
- **Y. Qin**, S.D. Xie (2012), **Spatial and temporal** variations of anthropogenic **black carbon emissions** in China for 1980-2009; *Atmospheric Chemistry and Physics* 12(11)
- **Y. Qin**, S.D. Xie (2011), A multi-factor designation method for **mapping particulate-pollution control zones** in China; *Science of the Total Environment* 409(19)
- **Y. Qin**, S.D. Xie (2011), Historical estimation of **carbonaceous aerosol emissions** from **biomass burning** 1990-2005; *Environmental Pollution* 159 (12): 3316-23
- **Y. Qin**, S.D. Xie (2011), Estimation of county-level black carbon emissions and its spatial distribution in China; *Atmospheric Environment* 45(38): 6995-7004

Social Activities and Internship Experiences

Presenter for Dialogue between World Leaders and Young Scientists	<i>Austria</i>	<i>08/2016</i>
<ul style="list-style-type: none"> • Represented the selected 51 IIASA young scientists to present to former Austria and Finland presidents on the synergies and trade-offs on sustainable development 		
Vice President of Princeton China Energy Group	<i>United States</i>	<i>04/2015-06/2016</i>
<ul style="list-style-type: none"> • Organized panel discussions to engage faculty and students in different fields for conversations on identifying solutions for energy-environment-economic related topics 		
Graduate Consultant of National Governors Association, Washington DC	<i>United States</i>	<i>09/2014-01/2015</i>
<ul style="list-style-type: none"> • Examined state-level regulatory initiatives to reduce methane emissions and protect water sources from hydraulic fracturing oil and gas wells (team work) 		
Chief Assistant in Environmental Protection Agency in Beijing	<i>China</i>	<i>07/2011-08/2011</i>
<ul style="list-style-type: none"> • Interviewed directors in Xicheng EPA and summarized government reports to prepare Xicheng EPA Yearbook 		
Editor-in-chief of "Environment Survey" Magazine at Peking University	<i>China</i>	<i>07/2011-08/2011</i>
<ul style="list-style-type: none"> • Organized orientation workshops and held training programs on students' social skills 		

Honors and Awards

International Institute for Applied Systems (IIASA) Annual Fund (51 worldwide)	2016
Neil A. McConnell Fellowship in International Affairs (Grade only)	2013-2015
Princeton University Graduate Fellowship	2012-2017
Peking University Liao KaiYuan Scholarship (Top 1%)	2010-2012
Model Excellent Tri-A Student at Peking University (Top 1%)	2010-2012
Beijing Normal University First Prize Scholarship (Top 1%)	2006-2008