Quanliang Ye - Curriculum Vitae

PERSONAL AND CONTACT DETAILS

Name:	Quanliang YE
Gener:	Male (he/him)
Nationality:	Chinese
Date of Birth:	6th April 1993
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EDUCATION

09/2018 – 08/2022 *Doctor of Philosophy* in Industrial Ecology – University of Twente (Netherlands)

Thesis: "Enhanced input-output modelling for improved assessment of supply chain-wide environmental pressures in space and time: the case of China"

Supervisors: Arjen Hoekstra, Markus Berger, Maarten Krol

10/2021 – 01/2022 *Research Visitor* – University of Groningen (Netherlands)

Project: China's future capital development and associated dynamic impacts on China's carbon emissions

Supervisors: Klaus Hubacek, Yuli Shan

09/2015 – 06/2015 *Master of Science* in Environmental Science– Hohai University (China)

Thesis: "Optimal allocation of water resources integrated with water footprint and virtual water trade in water scarce regions"

Supervisors: Yi Li, Wenlong Zhang

09/2011 – 06/2015 *Bachelor of Engineering* in Applied Mathematics – Hohai University (China).

Thesis: "A Mathematical Model of Radiation Hydrodynamics"

Supervisors: Chunjin Lin

ACADEMIC PROFESSIONAL EXPERIENCE

02/2025 – Present **Research Scholar** Energy Climate and Environment (ECE) Program

International Institute for Applied Systems Analysis (IIASA), Austria

Unpack and quantify the potential importance of including heterogeneous human behaviour in integrated assessment models (IAMs)

10/2023 – 01/2025 **Postdoctoral Researcher** Business Administration, Nijmegen School of Management

Radboud University, The Netherlands

Downscaling / regionalizing system dynamics-based integrated assessment models (IAMs)

05/2022 – 06/2025	**Postdoctoral Researcher**, Danish Center of Environmental Assessment (DECA) Aalborg University, Denmark Data collection for resources, products, and industries in space and time; constructing physical supply and use tables for sustainable assessments

GRANTS AND AWARDS

GRANTS

2023 – 2026	European Union's Horizon 2.5 – Climate Energy and Mobility: CHOICE – Innovative integrated assessment models for the food sector. **Contributor**, total budget EUR 4.9 million
2022 – 2026	European Union's Horizon 2.5 – Climate Energy and Mobility: WorldTrans – Transparent Assessments for Real People. **Contributor**, total budget EUR 4.6 million
2021 – 2025	KR Foundation of Denmark: The Getting the Data Right project. **Contributor**, total budget DKK 65 million
2018 – 2022	China Scholarship Council (CSC): Enhanced Input-Output Modelling for Improved Assessment of Supply Chain-Wide Environmental Pressures in Space and Time. **PI**, total budget EUR 64800

AWARDS

2024	Best Presenter Award, The 8th Dalian University of Technology International Young Scholars Forum
2023	The 17th Philosophy and Social Science Outstanding Achievement Awards, Second award
2021	China Chamber of Commerce Science and Technology Award, Third award
2019	Best Presenter Award, The 10th International Society for Industrial Ecology conference
2018 – 2022	China Scholarship Council (CSC), No. 201806710143
2018	Best Master Thesis of Hohai University
2017	National Scholarship for Graduated Students, 20,000 CNY
2015, 2016, 2017	First Class Scholarship, Rank 1/65, Hohai University, 12,000 CNY
2013	Mathematical Contest in Modeling, Third Prize

TEACHING & MENTORING EXPERIENCE

01/2024 – Present **Instructor**, Nijmegen School of Management, Radboud University

- Qualitative Research Methods (Undergraduate / Pre-master Course)
- Project Responsible Organisation 2: Business Analysis for Responsible Organisation (Undergraduate Course)
- Bachelor's Thesis for specialisation in Business Administration
- Bachelor's Thesis International Business Administration

05/2022 – Present **Mentor**, Department of Planning, Aalborg University

- Dr. Yue Xiao, Graduated in December 2023, Vienna University of Economics and Business (Austria)
- Dr. Dongxiao Xu, Graduated in May 2024, Beijing Normal University (China)
- M.Sc. Xinzi Wang, Graduated in June 2024, Hohai University (China)

10/2022 – 11/2022	**Guest Lecture**, Department of Planning, Aalborg University
	• Introduction of Sustainable Development and Environmental Management
01/2020 – 09/2020	**Mentor**, MWM Group, University of Twente
	• M.Sc. Yi Zhang, Graduated in June 2022, Hohai University (China)
09/2019 – 01/2020	**Teaching Assistant**, MWM Group, University of Twente
	• Water and Energy (Master Course)
1/2019 – 11/2019	**Guest Lecture**, MWM Group, University of Twente
	• Input-Output Modelling: From Theory to Practices
11/2016 – 06/2017	**Mentor**, College of Environment, Hohai University, China
	• Yan Cui, Bachelor Thesis

RESEARCH OUTPUT

Summary (Google Scholar): h-index (14), total citations (652 on 2024)

Peer-reviewed publications in scientific journals, **as first author / first corresponding author**:

Ye, Q.*, Shan, Y.*, and Hubacek, K*. (2024) Promoting inter-generational equity calls strong sustainability and strategic investments in long-lasting capital systems. *Cell Reports Sustainability* 1 (9), 100153 ***(Open Access)***

Ye, Q., Liu,Q., Swamy, D., Gao, L., Moallemi, E. A., Rydzak, F., Eker, S.* (2024) FeliX 2.0: An integrated model of climate, economy, environment, and society interactions. *Environmental Modelling & Software*, 106121 ***(Open Access)***

Ye, Q., Krol, M.S., Shan, Y.*, Berger, M., and Hubacek, K.* (2023) Allocating capital-associated CO2 emissions along full lifespan of capital investments helps re-assessing emission responsibilities. *Nature Communications* 14, 2727 ***(19 citations, Open Access, IF 14.7)***

Ye, Q.*, Bruckner, M., Wang, R., Schyns, J.F., Zhuo, L., Yang, L., Su, H. and Krol, M.S. (2022) A hybrid multi-regional input-output model of China: Integrating the physical agricultural biomass and food system into the monetary supply chain. *Resources, Conservation and Recycling* 177 ***(42 citations, Open Access, IF 11.2)***

Ye, Q.*, Wang, R., Schyns, J.F., Zhuo, L., Yang, L. and Krol, M.S. (2022) Effects of production fragmentation and inter-provincial trade on spatial blue water consumption and scarcity patterns in China. *Journal of Cleaner Production* 334 ***(Open Access, IF 9.8)***

Ye, Q., Hertwich, E.G., Krol, M.S., Font Vivanco, D., Lounsbury, A.W., Zheng, X., Hoekstra, A.Y., Wang, Y. and Wang, R.* (2021). Linking the Environmental Pressures of China's Capital Development to Global Final Consumption of the Past Decades and into the Future. *Environmental Science & Technology* 55(9), 6421-6429 ***(24 citations, Open Access, IF 11.3)***

Ye, Q., Li, Y.*, Zhuo, L., et al. (2018). Optimal allocation of physical water resources integrated with virtual water trade in water scarce regions: A case study for Beijing, China. *Water Research* 129, 264-276 ***(155 citations, IF 13.40)***

Ye, Q., Li, Y.*, Zhang, W. and Cai, W. (2019). Influential factors on water footprint: A focus on wheat production and consumption in virtual water import and export regions. *Ecological Indicators* 102, 309-315

Wu, Z., Zhao, M., and **Ye, Q.*** (2023) The influence of technology improvements and the consistency of environmental and economic indicators on decoupling of greenhouse gas emissions and economic growth. *Sustainable Production and Consumption* 42, 14-22 ***(Open Access, IF 10.9)***

Wu, Z., Wang, M. and **Ye, Q.*** (2021) Integrating the inter- and intra-annual dynamic features of capital into environmental footprint assessment: Revisiting China's greenhouse gas footprints, 1995-2015. *Science of the Total Environment* 801, 149629 ***(Open Access, IF 10.753)***

Wu, Z., Yang, L., Chen, Q. and **Ye, Q.*** (2021) The impacts of international trade on global greenhouse gas emissions: A thought experiment based on a novel no-trade analysis.

Journal of Environmental Management 300 ***(ABS 3, Open Access, IF 8.910)***

Wu, Z. and **Ye, Q.*** (2020). Water pollution loads and shifting within China's inter-province trade. *Journal of Cleaner Production* 259 ***(41 citations, Open Access, IF 9.8)***

Wu, Z., **Ye, Q.*** and Tian, Z. (2020). Effects of the Policy and Human Intervention on the Infrastructure-Environment Nexus in China. *Sustainability* 12(18) ***(Open Access)***

Li, Y., Huang, Y., **Ye, Q.***, Zhang, W., et al. (2018). Multi-objective optimization integrated with life cycle assessment for rainwater harvesting systems. *Journal of Hydrology* 558, 659-666 ***(50 citations)***

Peer-reviewed publications in scientific journals, **as co-author**:

Sun, Z., Zhan, Y., Liu, L, **Ye, Q**, Zhang, Q*. (2024). China's dietary transition and its impact on cropland demand for sustainable agriculture. *Sustainable Production and Consumption* 49, 61–71

Wang, X., Zhang, W.*, Li, Y., Tong, J., Yu, F., **Ye, Q.*** (2024). Impacts of water constraints on economic outputs and trade: A multi-regional input-output analysis in China. *Journal of Cleaner Production* 434, 140345

Li, Y., Zhang, S., Zhang, W., Xiong, W., **Ye, Q.**, Hou, X., Wang, C., Wang, P. (2019). Life cycle assessment of advanced wastewater treatment processes: Involving 126 pharmaceuticals and personal care products in life cycle inventory. *Journal of environmental management* 238, 442-450 ***(113 citations, ABS 3)***

Li, Y.*, Ye, Q., Liu, A., Meng, F., Zhang, W., Xiong, W. (2017). Seeking urbanization security and sustainability: Multi-objective optimization of rainwater harvesting systems in China. *Journal of Hydrology* 550, 42–53 ***(50 citations)***

Xu, D., Zhang, Y.*, **Ye, Q.**, Fang, Z., Li, Y., Qang, X., Yang, Z. (2023) Mapping CO2 spatiotemporal transfers embodied in China's trade using a global dynamic network model endogenizing fixed capital. *Journal of Cleaner Production* 427, 139162

Yuguda, K.T., Li, Y.*, Zhang, W., **Ye, Q.** (2020) Incorporating water loss from water storage and conveyance into blue water footprint of irrigated sugarcane: A case study of Savannah Sugar Irrigation District, Nigeria. *Science of The Total Environment* 715, 136886

ORAL PRESENTATIONS AT SCIENTIFIC CONFERENCES

Ye, Q., Eker, S.: FeliX 2.0: An integrated model of climate, economy, environment, and society interactions. *The 17th IAMC Annual Meeting 2024*. November 2024, Yonsei University, Seoul, South Korea

Ye, Q.: Role of long-lasting capital on environmental and sustainable assessment in space and time. *The 11th International Society for Industrial Ecology conference*. July 2023, Leiden University, Leiden, the Netherlands

Ye, Q.: Climate Change: The Physical Science Basis, Impacts, Adaptation and Vulnerability, and Mitigation of Climate Change. College of Environment. May 2023, Hohai University, Nanjing, China ***(Invited by the host)***

Ye, Q.: From GHG emission gap to SDGs investment gaps: efforts for sustainable development. *Department of Planning*. November 2022, Aalborg University, Aalborg, Denmark

Ye, Q.: Water pollution loads, shifting, and key drivers within China's inter-provincial trade. *The 5th International Symposium on Shallow Flows conference*. October 2021, Hohai University, Nanjing, China

Ye, Q.: Capital Derived environmental impacts in China. *The 10th International Society for Industrial Ecology conference*. July 2019, Tsinghua University, Beijing, China (***Best Presenter Award***)

Ye, Q. and Wang, R.: Trends and patterns in the contributions to water use from different anthropogenic drivers. *The 10th International Society for Industrial Ecology conference*. July 2019, Tsinghua University, Beijing, China

Ye, Q. and Wang, R.: Multi-Regional Input-Output Benchmark Evaluation of Water Economic Productivity: A Policy Analysis of "Three Red Line" in China. *AEESP 2019 Research and Education Conference at ASU.* May 2019, Arizona State University, Tempe, AZ, the United States

Ye, Q.: Optimal allocation of physical water resources integrated with virtual water trade in water scarce regions: A case study for Beijing, China. *China Research Institute of Water-*

Saving Agriculture in Arid Regions. August 2018, Yanglin, Shaanxi, China (***Invited by the host***)

AUTHORIZED PATENTS

Li, Y., **Ye, Q.**, Zhang, W., Xiong W. and Li, J. Artificial water weed for pollution reduction in rivers. CN201510797105.9. Authorized date 18/11/2015. http://www.soopat.com/Patent/201510797105?lx=FMSQ (*in Chinese*)

Li, Y., Li, J., Zhang, W. and **Ye, Q.** Ecological floating beds for oil pollution reduction in natural water bodies.CN201510799474.1. Authorized date 18/11/2015. http://www.soopat.com/Patent/201510799474 (*in Chinese*)

ACADEMIC SERVICE & SOCIETY MEMBERSHIP

09/2015 – Present **Collaboration Liaison**

- Hohai University (China)
- Northwest A&F University (China)
- Fudan University (China)
- Shandong University (China)
- Leiden University (Netherlands)
- University of Groningen (Netherlands)
- Aalborg University (Denmark)
- Radboud University (Netherlands)
- Norwegian University of Science and Technology (Norway)
- Vienna University of Economics and Business (Austria)
- International Institute for Applied Systems Analysis (Austria)

03/2016 – Present **Journal Editor and Referee**

- Communications Sustainability, Nature Portfolio (**Editorial Board Member**)
- Carbon Footprint (**The Youth Editorial Board member**)
- Frontiers in Environmental Science (**Review Editor** for Freshwater Science)
- Journal of Environmental Management (3)
- Water Research (7)
- Journal of Cleaner Production (12)
- Environmental Research (6)
- Science of the Total Environment (1)
- Scientific Data (3)

10/2018 – Present **Professional Organization Membership**

- The International Society for Industrial Ecology (ISIE)
- The International Input-Output Association (IIOA)

LANGUAGE AND COMPUTER SKILLS

Languages • Chinese (Mother Tongue) • English (Good) • Dutch (Basic)

Computer • Matlab (Good), Python (Good), SPSS (Good), ArcGIS (Good), Q-GIS (Basic)

• Microsoft Office™ tools (Good), Photoshop CS (Good)

Others • Badminton (Good), Swimming (Good), Basketball (Good), Archery (Basic)

ALGORITHMS & DATABASES

Algorithms • Capital-endogenized input-output model

https://github.com/yequanliang1993/capital-endogenized-input-output-model.git, including:

A global version based on EXIOBASE V3, (***Open Access***)

A Inter-provincial version for China (***Open Access***)

• Food and Agricultural Biomass Input-output model for China (***Open Access***)

https://github.com/yequanliang1993/fabio-chn.git

Databases

• Time-series physical supply, use, and input-output tables for China between 1990 and 2013, https://doi.org/10.6084/m9.figshare.16571103.v5 (***Open Access***)

• Time-series provincial gross fixed capital formation for China between 1990 and 2017, https://doi.org/10.6084/m9.figshare.20407572.v1 (***Open Access***)