

Deyu Rao

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6072 LSK Business Building, Department of Economics

HKUST, Clear Water Bay, Hong Kong SAR

Academic Appointment

Assistant Professor, Department of Economics, Hong Kong University of Science and Technology

HONG KONG SAR, *July 2022 -*

Faculty Associate, Center for Economic Policy, Hong Kong University of Science and Technology

HONG KONG SAR, *October 2022 -*

Education

Ph.D., Applied Economics and Management, Cornell University ITHACA, 2022

M.Sc., Applied Economics and Management, Cornell University ITHACA, 2017

B.Econ. with Distinction, Energy Economics, Renmin University of China BEIJING, 2015

Visiting Student, Department of Economics, University of Warwick COVENTRY, UK, 2013

B.A., English Language and Literature, Renmin University of China BEIJING, 2015

Research and Teaching Interests

Environmental Economics, Urban Economics, Applied Microeconomics

Research

Working Papers

“The Role of Environmental Amenities in the Urban Economy: Evidence From a Spatial General Equilibrium Approach,” 2023.

“Transportation Networks, Short-term Mobility, and Pollution Exposure: Evidence from High-Speed Rail in China,” with Panle Jia Barwick, Dave Donaldson, Shanjun Li, and Yatang Lin, NBER Working Paper w30462, 2022.

“The Healthcare Cost of Air Pollution: Evidence from the World’s Largest Payment Network,” with Panle Jia Barwick, Shanjun Li, and Nahim Bin Zahur, *forthcoming at The Review of Economics and Statistics*.

Work-in-Progress

“Water Woes in a Woven World: the Economic and Trade Impacts of Water Stress,” with Shanjun Li, Ivan Rudik, Fan Zhang.

“Explaining Machine Learning in Hedonic Imputation: Utility Functions and Elasticities of Substitution,” with Shiwei Zeng.

“Do Local Government Officials Tunnel Public Goods to Corporations in China? Evidence from Subway Land Auctions,” with Yan Zhang, Shiyu Wang.

“The Impact of Air Quality Monitoring: Evidence from China’s Land Market,” with Mengwei Lin.

“Local Governance and Environmental Regulation: Evidence from China’s Urbanization,” with Mengwei Lin.

“Quantifying the Impact of COVID-19 on Economic Activities Through Air Pollution,” with Zhengyuan Wu, and Shanjun Li.

“Traffic Congestion and Consumer Spending,” with Nahim Bin Zahur.

Teaching Experience * scheduled

ECON 2103 (UG) Principles of Microeconomics

2024SP, 2024FA*, Enrollment: 58

ECON 4454 (UG) Green Economics and Sustainability

Previously ECON 4999X Green Finance and Sustainability

2023SP, 2024SP, 2024FA*, Evaluation: 4.4/5, Enrollment: 31, 17

Recognition of Excellent Teaching Performance, HKUST Business School, 2022/23

ECON 5670 (MSc) Urban Economics

2023SP, 2024SP, 2025SU*, Evaluation: 4.8/5, Enrollment: 11, 47

Fellowships, Grants, and Honors

Early Career Scheme (ECS), PI, awarded by Hong Kong Research Grants Council No. 26500923 2023/24

“Local Governance and Environmental Regulation: Evidence from China’s Urbanization”, HK\$535,443

Best Ph.D. Dissertation Award, Dyson School of Applied Economics and Management, Cornell University 2023

Summer Graduate Research Assistantship, Cornell University 2018-2021

Graduate Fellowship, Cornell University 2017-2018

Scholarship for Academic Excellence, Sports Excellence, Renmin University of China 2012-2014

Previous Teaching and Research Experience

Teaching Assistant

Econometrics, AEM 7100 (PhD level), Prof. Shanjun Li Spring 2020, 2021, 2022

Investments, AEM 4670 (UG level), Prof. Sumudu Watugala Fall 2019, 2020

CICER Summer Camp (Market Simulation, Marketing, Behavioral Economics) 2019-2021

Outstanding Graduate Teaching Assistant, College of Agriculture and Life Sciences, Cornell University 2021

Research Assistant

Prof. Shanjun Li, Cornell University ITHACA, 2016, 2018, 2021

Cornell Institute for China Economic Research (CICER) ITHACA, SHANGHAI & BEIJING, 2016

Cornell Institute for Social and Economic Research (CISER) ITHACA, 2016

Prof. Ping Qin, Renmin University of China BEIJING, 2014, 2015

Professional Activities * scheduled

Invited Seminars and Conference Presentation:

2024: SUFE, AERE Summer, RUSE Nanjing

2023: ASSA-AREUEA, HKUST CEP, SJTU Antai, PKU, Jinan IESR

2022: HKUST, HKU, NUS, ICCDS 2022, AsRES-AREUEA Joint Conference, UEA 16th Meeting, TWEEDS

2021: Cornell, Renmin University of China, NTU-CEC Joint Online Workshop

2017-2020: Cornell (CICER & EMI Emerging Markets Research Day, AEP, SEERE, Emerging Markets PhD Research Day), NBER Spring Meeting 2017

Discussant:

2023: SUFE Workshop

2022: ICCDS 2022, AsRES-AREUEA Joint Conference, UEA 16th Meeting

Professional Services

Referee: *Journal of the European Economic Association, Journal of the Association of Environmental and Resource Economists, Journal of Environmental Economics and Management, Journal of Economic Behavior and Organization, China Economic Review, Journal of Transport Economics and Policy, Bulletin of Economic Research*

UG Cmte., Computing & Database Cmte., Honor Thesis Reviewer, Dept. of Economics, HKUST 2023 -

Judging Panel Member, Sustainable Smart Campus (SSC) Student Competition, HKUST 2023

Seminar Committee, Graduate Student Assembly (GSA) of AEM, Cornell University 2018, 2019

Selected Press Coverage

“High-Speed Rail Enables Chinese to Avoid Unhealthy Environs,” NBER Digest, Jan 2023.

“How Smog Affects Spending in China,” The Economist, June 2018.

“The Impact of Air Pollution on Healthcare Spending in China,” etc., with Panle Jia Barwick, Shanjun Li, and Nahim Bin Zahur, in [VoxDev](#) (Apr 2019), [VoxEU](#) (Sept 2018), [VoxChina](#) (Aug 2017).

“Cornell Economists Analyze Relationship between Air Pollution and Health-Care Spending in China,” in News of Department of Economics, Cornell University, Aug 2018.

Other Experience

Data Analyst Intern, J. D. Power and Associates

BEIJING, 2014

Field Surveyor, Chinese Residential Energy Consumption Survey

BEIJING & JINING, 2012, 2013

Level II Football Referee, Chinese Football Association

BEIJING, 2012-2015

Software Skills

Programming: STATA, MATLAB, ArcGIS, Python, R, SAS, SPSS, ORACLE, MS SQL

Language: Mandarin Chinese (native), English (fluent), Latin (basic)