

CONTACT INFORMATION	<p>Department of Spatial Economics De Boelelaan 1105 1081 HV Amsterdam the Netherlands</p> <p>+31-0645436521 miao.dai@mail.mcgill.ca m.dai@vu.nl https://www.miaodai.org/</p>
POSITION	<p>Postdoctoral Researcher, Department of Spatial Economics, School of Business and Economics, Vrije Universiteit Amsterdam, Amsterdam, the Netherlands 2025.03 – SNSF Project: Critical Minerals and the Clean Energy Transition, with Joëlle Noailly, Steven Poelhekke, and Gerard van der Meijden</p> <p>Candidate Fellow, Tinbergen Institute 2025.03 –</p> <p>Postdoctoral Researcher, University of Montpellier and Center for Environmental Economics – Montpellier (CEE-M), Montpellier, France 2023.09-2025.02 ANR Project: ScarCyclET – Materials Scarcity and Recycling for the Energy Transition, with Francesco Ricci and Mouez Fodha</p>
EDUCATION	<p>Ph.D. in Economics, McGill University, Montreal, Canada 2017-2023 Dissertation Title: <i>Essays in resource market imperfections and their impacts on firm behaviour and the environment</i> Committee: Hassan Benchechroun (Supervisor), Francesco Amodio (Co-Supervisor), Laura Lasio, Ngo Van Long.</p> <p>M.A. in Environmental, Resource and Development Economics (ERDE), University of Winnipeg, Winnipeg, Canada 2014-2016</p> <p>B.Sc. in Resources, Environment and Urban and Rural Planning Management, Hubei Normal University, China 2010-2014</p>
RESEARCH FIELDS	Environmental and Resource Economics, Industrial Organization, International Trade
PUBLICATIONS	<p>“On the profitability of cross-ownership in Cournot nonrenewable resource oligopolies: Stock size matters.” with Hassan Benchechroun and Ngo Van Long (2022), <i>Journal of Environmental Economics and Management</i>, Volume 111: 102597.</p> <p>“The impact of cross-ownership on the value of a clean technology in the energy market.” with Hassan Benchechroun and Ngo Van Long (2022), <i>Environmental Modelling and Assessment</i>, 27(6): 1007-1019.</p>
WORKING PAPERS	<p>“On the impact of cross-ownership in a common property renewable resource oligopoly”, with Hassan Benchechroun and Ilyass Dahmouni, September 2025. (Job Market Paper, under review)</p> <p>“Recycling and oligopolistic competition in markets for critical minerals”, with Hassan Benchechroun, Gerard van der Meijden and Cees Withagen, January 2026.</p> <p>“On cross-ownership in a nonrenewable resource differentiated product oligopoly”, with Hassan Benchechroun, January 2026. (Conditionally accepted, chapter contribution for <i>Game theory in economics and management (Essays in honour of Guiomar Martín-Herrán)</i>)</p>

“[Indirect and direct lobbying on international trade in waste](#)”, with Guillaume Cheikbossian, October 2025. (Under review)

“Matter matters: Efficient recycling policies under tight markets for scrap”, with Francesco Ricci and Mouez Fodha, October 2025.

“Strategic recycling of critical raw materials”, with Hassan Benchekroun and Francesco Ricci, October 2025

“The optimal policy to accelerate electric vehicle adoption: Taxes or subsidies?” with Santiago J. Rubio and Franческа Tomori, October 2025.

“[Environmental lobbying on international trade in waste: Theory and evidence](#)”, September 2023.

WORK-IN-PROGRESS

“The impact of cross-ownership on the exploitation of a polluting common property renewable resource oligopoly”, with Hassan Benchekroun, Gerard van der Meijden and Cees Withagen

“The insiders’ dilemma of cross-ownership participants: Experimental evidence”, with Hassan Benchekroun, Dimitri Dubois and Marc Willinger

“The pro-competitive effects of cross-ownership: Experimental evidence in a common property renewable resource oligopoly”, with Hassan Benchekroun, Dimitri Dubois and Marc Willinger

“Strategic exploitation of a predator-prey ecosystem in the presence of rival cross-shareholdings” with Hassan Benchekroun and Guillaume Bataille

RESEARCH EXPERIENCE

Principal Investigator, “Oligopolistic competition, recycling and strategic trade policy in the geopolitical competition for critical materials in the energy transition” (with Hassan Benchekroun), \$10,000 CAD, RRECQ, Canada

Research Assistant

For Hassan Benchekroun, McGill University, 2018-2022

For Amrita Ray Chaudhuri and Soham Bakshi, University of Winnipeg, 2015-2017

For Melanie O’Gorman and James Townsend, University of Winnipeg and Public Interest Law Centre, 2016

TEACHING EXPERIENCE

Graduate Teaching Assistant, Max Bell School of Public Policy, McGill University

Global Macroeconomic Policy (Winter 2023, Winter 2022, Winter 2021, Winter 2020)

Microeconomics for Public Policy (Fall 2021, Fall 2020, Fall 2019)

Teaching Assistant, Department of Economics, McGill University

Natural Resource Economics (Winter 2023, Winter 2022)

Advanced Economic Theory - Honours (Fall 2022, Fall 2021)

Microeconomic Analysis and Applications (Summer 2021)

Microeconomic Theory (Winter 2021, Winter 2020, Winter 2018)

Political Economy of Trade Policy (Winter 2021, Winter 2019)

Industrial Organization (Fall 2020)

Public Sector Economics (Fall 2019, Fall 2018)

Mathematics for Economists (Summer 2019)

Economics of the Environment (Fall 2017)

Instructor, Department of Economics, University of Winnipeg

Intermediate Microeconomics (Spring 2017)

Lab Demonstrator/Teaching Assistant, Department of Economics, University of Winnipeg

Intermediate Microeconomics (Winter 2017, Fall 2016, Winter 2016, Fall 2015)

Introduction to Macroeconomics (Winter 2017)

Modern Microeconomics for Economics and Business (Winter 2017)

Mathematical Economics (Fall 2016)

Introduction to Microeconomics (Fall 2016)

Introduction to Economic Theory (Fall 2015)

SEMINARS AND
CONFERENCES

2026: CEE-M Workshop on Dynamic Problems in Environmental and Resource Economics, University of Barcelona

2025: 13th Annual Conference of the Italian Association of Environmental and Resource Economists (IAERE), VU Amsterdam-Department of Spatial Economics Eureka Lunch Seminar, SNSF Critical Minerals Internal Workshop, 30th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), 4th Workshop on Materials Scarcity and Recycling for the Energy Transition, Annual Conference of the European Association for Research in Industrial Economics (EARIE), 5th AERNA Workshop on Game Theory and the Environment, 26th Annual Conference of the European Trade Study Group (ETSG), Nederlandse Economendag (Dutch Economists' Day)

2024: 3rd Workshop on Materials Scarcity and Recycling for the Energy Transition, McGill-CIREQ Lunch Seminar, CIRANO-CIREQ Workshop on Environmental and Natural Resource Economics, Second Young AERNA Day, Paris School of Economics Trade and Environment Transition Workshop, Conference on Sustainable Resource Use and Economic Dynamics (SURED), 23rd Journées Louis-André Gérard-Varet (LAGV), Joint Workshop on Circular Economy Economic Modelling, 29th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), CEE-M Environmental Economics Seminar, Annual meeting of the Association of Southern European Economic Theorists (ASSET)

2023: 28th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), EAERE Summer School – University of Graz, 2023 North America Conference of the Chinese Economists Society (CES)

2022: Beijing Normal University Bay Area International Business School, 32nd Annual Conference of the Canadian Resource and Environmental Economics Association (CREEA), 11th Congress of the Asian Association of Environmental and Resource Economics (AAERE), Xiangjiang River Forum in Economics, Finance and Management for Young Scholars – CEFMS, 12th International Economics and Finance Society (IEFS) China Annual Conference (invited), 2022 Annual Conference of the Chinese Economists Society (CES), 17th Annual Meeting of the Asia Pacific Trade Seminars (APTS), 8th Canadian PhD and Early Career Researcher Workshop in Environmental and Resource Economics, 56th Annual Meeting of the Canadian Economics Association (CEA), 15th Australasian Trade Workshop (ATW), Montreal Environmental and Natural Resources Economics Workshop, McGill-CIREQ Lunch Seminar

2021: Montreal Environmental and Natural Resources Economics Workshop

2020: 30th Annual Conference of Canadian Resource and Environmental Economics Association

PROFESSIONAL
SERVICES

Referee for *Resource and Energy Economics*, *Applied Economics*, *China Economic Review*, *Environmental and Resource Economics*, *Canadian Journal of Economics*, *Environment and Development Economics*

Thesis supervisor (BSc in Economics and Business Economics, VU Amsterdam, 2025)

FELLOWSHIPS AND
AWARDS

STP - Social Sciences and Humanities Research Council of Canada (SSHRC), 2021-2024

STP - Fonds de recherche du Québec - Société et culture (FRQSC), 2018-2024

Participation Grant, Global Excellence in Modeling Climate and Energy Policies (GEOCEP), 2023
 Travel Scholarship, European Association of Environmental and Resource Economists, 2023
 International Graduate Mobility Award, McGill University, 2023 and 2019
 Travel Subsidy, Chinese Economists Society (CES), 2023
 Travel Grant, Canadian Resource and Environmental Economics Association (CREEA), 2022
[Lasserre-Renzetti Prize for Best Student Paper](#), CREEA, 2022
 Student Travel Grant, Canadian Economics Association (CEA), 2022
 Graduate Research Enhancement and Travel Award, Faculty of Arts, McGill University, 2022
 Clifford C F Wong Fellowship - Economics, McGill University, 2017-2020
 14th Competition and Regulation European Summer School (CRESSE) Fellowship, 2019
 Graduate Excellence Award in Economics, McGill University, 2017

PROFESSIONAL AFFILIATIONS

Québec Circular Economy Research Network/Réseau de recherche en économie circulaire du Québec (RRECQ)
 Canadian Resource and Environmental Economics Association (CREEA)
 European Association of Environmental and Resource Economists (EAERE)
 French Association of Environmental and Resource Economists (FAERE)
 Spanish-Portuguese Association of Natural and Environmental Resource Economics (AERNA)
 Italian Association of Environmental and Resource Economists (IAERE)
 Chinese Economist Society (CES)

LANGUAGES

Chinese (native), English (fluent), French (basic)

SKILLS

Matlab, Mathematica, Stata, \LaTeX

REFERENCES

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 Department of Spatial Economics
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