

Matteo Calcaterra

RESEARCH FELLOW · MANAGEMENT, ECONOMICS AND INDUSTRIAL ENGINEERING

Politecnico di Milano, Via Lambruschini 4/B, Milano, Italy

✉ matteo.calcaterra@polimi.it | 📱 matteocalcaterra

Professional Experience

Politecnico di Milano

POSTDOCTORAL RESEARCHER

- Department of Management, Economics, and Industrial Engineering
- Contributing to Horizon Europe projects NEWPATHWAYS, PRISMA, ELEVATE

Milano, Italy

Nov. 2024 - present

RFF-CMCC European Institute on Economics and the Environment

VISITING – SUSTAINABLE EARTH MODELLING ECONOMICS

- Developed Integrated Assessment Models (RICE50+, WITCH)
- Contributed to Horizon Europe projects PRISMA, ELEVATE

Milano, Italy

Nov. 2021 - present

Resources For the Future

VISITING PHD STUDENT

Washington, D.C., USA

Sep. 2023 - Feb. 2024

European Investment Bank

TRAINEE, TMR – COUNTERPARTY MANAGEMENT – PUBLIC SECTOR DIVISION

- Portfolio Analysis, Project Monitoring Reports, Credit Counterpart Reviews

Luxembourg, Luxembourg

Mar. 2021 - Jul. 2021

European Commission

INTERN, DG ECFIN UNIT DDG2.01: COORDINATION WITH THE EIB, EBRD AND OTHER IFIS

- Responsible for reviewing and condensing the projects to be financed by the EIB

Luxembourg, Luxembourg

Sep. 2019 - Dec. 2019

UniCredit

CORPORATE AND INVESTMENT BANKING MARKETING AND COMMUNICATION INTERN

Milano, Italy

May 2017 - Oct. 2017

Education

Politecnico di Milano

PHD IN MANAGEMENT, ECONOMICS, AND INDUSTRIAL ENGINEERING

- Thesis title: *Advances in Modelling Macro-Finance amid Climate Change: Adequacy and Examples*
Advisor: Prof. Massimo Tavoni
Opponent: Prof. Ottmar Edenhofer

Milano, Italy

Nov. 2021 - Apr. 2025

Bocconi University

M.Sc. IN DES-ESS – ECONOMIC AND SOCIAL SCIENCES

- Thesis title: *Government in RICE50+: a Quantitative Exploration*
Advisor: Prof. Valentina Bosetti
- Grade: 106/110

Milano, Italy

Sep. 2018 - Apr. 2021

Bocconi University

B.Sc. IN INTERNATIONAL ECONOMICS AND FINANCE

- Major in Economics
- Grade: 105/110

Milano, Italy

Sep. 2015 - Sep. 2018

Waseda University

UNDERGRADUATE EXCHANGE PROGRAM - ECONOMICS

Tokyo, Japan

Mar. 2018 - Aug. 2018

Publications

PUBLISHED

- Calcaterra M.**, Aleluia Reis L., Fragkos P., Briera T., de Boer H. S., Egli F., Emmerling J., Iyer G., Mittal S., Polzin F. H. J., Sanders M. W. J. L., Schmidt T. S., Serebriakova A., Steffen B., van de Ven D. J., van Vuuren D. P., Waidelich P., Tavoni M. (2024). Reducing the Cost of Capital to Finance the Energy Transition in Developing Countries. *Nature Energy*, 1–11. (DOI)
- Gilli M., **Calcaterra M.**, Emmerling J., and Granella F. (2024). Climate change impacts on the within-country income distributions. *Journal of Environmental Economics and Management*, Volume 127, 103012. (DOI)
- Tavoni M., Andreoni P., **Calcaterra M.**, Calliari E., Deubelli-Hwang T., Mechler R., Hochrainer-Stigler S., and Wenz L. (2024). Economic quantification of Loss and Damage funding needs. *Nature Reviews Earth & Environment* Volume 5, 411–413. (DOI)
- Shayegh S., Reissl S., Roshan E., and **Calcaterra M.** (2023). An assessment of different transition pathways to a green global economy. *Communications Earth & Environment* Volume 4, 448. (DOI)

WORK IN PROGRESS

- Calcaterra M.**, Consiglio A., Martorana V., Tavoni M., and Zenios S. (2025). Sovereigns on thinning ice: Debt sustainability, climate impacts, and adaptation. *SSRN*. (link) [Under Review]
- Calcaterra M.**, Optimal intertemporal climate policy and inequality.

Presentations

INVITED TALKS

- Jun. 2025. Reducing Cost of Capital to Finance the Energy Transition in Developing Countries. Webinar presentation: RECONNECT webinar (link).
- Jul. 2024. Reducing Cost of Capital to Finance the Energy Transition in Developing Countries. Webinar presentation: ELEVATE webinar series (link).
- May 2023. IAMs and Climate Finance – Transition Risk. Remote talk: Deloitte Sustainability Seminars.

CONTRIBUTED PRESENTATIONS

- Jun. 2025. . Sovereigns on thinning ice: Debt sustainability, climate impacts, and adaptation. Oral presentation: EAERE (European Association of Environmental and Resource Economists), Norwegian School of Economics (NHH), Bergen, Norway.
- Jun. 2024. Reducing Cost of Capital to Finance the Energy Transition in Developing Countries. Oral presentation: WWCS (What Works Climate Solutions), Berlin Technical University, Berlin, Germany.
- Oct. 2023. Reducing Cost of Capital to Finance the Energy Transition in Developing Countries: A Multi-Model Analysis. Remote presentation: ECEMP 2023 (European Climate+Energy Modelling Platform).
- Sept. 2023. Friends of RFF, Resources For the Future, Washington, D.C., USA.
- Nov. 2022. Renewable Energy Cost of Capital: Financial learning and de-risking policies. Oral presentation: IAMC (Integrated Assessment Modelling Consortium) 15th Annual Meeting, College Park, MD, USA.

Awards, Fellowships, & Grants

| | | |
|------|---|-----------|
| 2023 | GEOCEP - Global Excellence in Modeling Climate and Energy Policies , European Union's Horizon 2020 research and innovation programme | \$ 12,000 |
| 2021 | Full PhD Scholarship , Politecnico di Milano – DIG | |
| 2018 | Waseda Exchange Student Scholarship , Waseda University | ¥ 400,000 |

Teaching Experience

Spring
2024, 2025 **Environmental Economics**, Lecturer and Teaching Assistant (course held in Italian)

Politecnico di
Milano

Mentoring

2021-2022 **Adrien Hallard**, Master thesis

Outreach & Professional Development

OUTREACH & POLICY BRIEFS

Bruegel Working Paper: Sovereigns on thinning ice: Debt sustainability, climate impacts, and adaptation, *Bruegel Working Paper Series*, **Calcaterra M.**, Consiglio A., Martorana V., Tavoni M., and Zenios S. (May 2025) ([link](#))

Policy Brief: Understanding and quantifying the Loss and Damage policy space, *IASA & CMCC COP29 policy brief*, Mechler R., Calliari E., Tavoni M., **Calcaterra M.** (November 2024) ([link](#))

Data explorer for Tavoni, M. *et al.*, Economic quantification of Loss and Damage funding needs, *Nat Rev Earth Environ* 5, 411–413 (2024) **Calcaterra M.** (November 2024) ([link](#))

Research briefing, Fair energy finance increases global equity in the green energy transition, *Nature Energy*, **Calcaterra M.**, Tavoni M. (October 2024) ([DOI](#))

DEVELOPMENT

TI Economics Lectures 2023, summer school on state-of-the-art methods in environmental economics, taught by Hunt Alcott. Tinbergen Institute, Amsterdam, Netherlands

ENGAGE/NAVIGATE Summer School 2023, on Integrated Assessment Modelling and climate macroeconomics. RFF-CMCC EIEE, Villa del Grumello, Como, Italy

PEER REVIEW

Current opinion in environmental sustainability, *iScience*, *PLOS Climate*

Skills

TECHNICAL SKILLS

R, GAMS, Excel: Advanced

Git, LaTeX, Word, Power Point: Professional proficiency

KNIME, VBA: Intermediate

Bash, Stata, Python: Basic

LANGUAGES

Italian: Mother tongue

English: Fluent (114/120 TOEFL - May 2021)

French: Intermediate