

# Daniele Rinaldo

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## PERSONAL INFORMATION

**Email:** [d.rinaldo@exeter.ac.uk](mailto:d.rinaldo@exeter.ac.uk)  
**Phone Number:** +44 (0) 7938624004  
**Nationality:** Italian  
**Languages spoken:** Italian (native), English, French (fluent), German, Spanish (intermediate)  
[Website](#)

## CURRENT POSITION

**Lecturer** (Education & Research) 2021-currently  
Department of Economics and Land, Environment, Economics and Policy Institute (LEEP)  
University of Exeter Business School, United Kingdom

## PREVIOUS POSITIONS

**Visiting Scholar, Fellow** 2020-2021  
Faculty of Economics and Centre for the Study of Existential Risk  
University of Cambridge, United Kingdom  
Sponsor: [Prof. Partha Dasgupta](#)  
Funded by the Swiss National Science Foundation

**Principal Investigator** 2019-2020  
The Graduate Institute of International and Development Studies, Geneva, Switzerland  
Funded by the Swiss Network for International Studies (CHF 250,000)

## EDUCATION

**The Graduate Institute of International and Development Studies, Geneva** 2019  
PhD in Economics  
Thesis title: *Essays in Non-Gaussian Economics*  
**Supervisor:** [Prof. Jean-Louis Arcand](#)  
**Awards:** - *Summa cum laude avec félicitations* for both thesis and defense

**Musik-Akademie Basel:** Soloist diploma *mit Auszeichnung* 2014

**Royal Academy of Music, London:** MA, Piano 2011  
**Awards:** Alfred Knight Prize

**University of Padua:** MSc in Quantitative Finance (108/110) 2009

**University of Padua:** BSc in Mathematics and Economics (110/110) 2006  
**Awards:** *summa cum laude*, special award for the best thesis in applied mathematics

**Accademia Nazionale Santa Cecilia, Rome:** Postgraduate Diploma (10/10), Piano 2006

**Conservatorio Nazionale Cesare Pollini, Padua:** Diploma (10/10), Piano 2002  
**Awards:** *summa cum laude*

## PRIZES

**Top 3 Best Publication in Environmental and Resource Economics**  
European Association of Environmental and Resource Economists 2025  
**Leonid Hurwicz Prize, Geneva** 2019

RESEARCH INTERESTS Natural resource economics, regime shifts and economics of biodiversity. Economic drivers of deforestation and economics of endemic and emerging diseases, with a focus on Sub-Saharan Africa. Applications to development and environmental economics of stochastic control methods and mean-field games. Applied probability theory and stochastic analysis, with a focus on nonlinear diffusion processes.

REVIEWER ACTIVITY Reviewer for the following journals: *Quarterly Journal of Economics*, *Econometrica*, *Review of Economic Studies*, *Nature*, *PNAS*, *Nature Communications*, *Stochastic Processes and Their Applications*, *Journal of Development Economics*, *Journal of Environmental Economics and Management*, *Environmental and Resource Economics*, *Economic Modelling*, *Oxford Bulletin of Economics and Statistics*, *Ecological Economics*, *Infectious Diseases of Poverty*, *The Lancet Global Health*.

FUNDED PROJECTS Principal investigator February 2026 - currently  
*Climate change vulnerability and deforestation in Africa*  
Funded by the British Academy . Funds awarded: GBP 10,000

Co-Investigator October 2025 - currently  
*Biodiversity Target and Cost Approach Scoping Project*  
Funded by the UK Department for Environment, Food and Rural Affairs (DEFRA). Funds awarded: GBP 102,449

Principal investigator December 2018- August 2020  
*Schistosomiasis, Agriculture and Migration in Africa: a joint Economic and Ecological Approach*  
Funded by the Swiss Network of International Studies (SNIS). Funds awarded: CHF 250,000

Co-Investigator, research associate December 2018- August 2020  
*Automated Interpretation of Political and Economic Policy Documents. Machine Learning using semantic and syntactic information*  
Funded by the Swiss National Science Foundation. Funds awarded: CHF 2,285,000

PUBLICATIONS

- The Destruction of Gaza: Satellite Measurements of the Economic Cost of War (2026)  
*Joint with Jean-Louis Arcand, Rami Alazzeah, Corey Scher, Jamon Van Den Hoek*  
Forthcoming, PNAS Nexus.
- Skew-Normal Diffusions (2026)  
*Joint with Max-Olivier Hongler*  
Revise and Resubmit, *Journal of Statistical Physics*, Volume 193, Article 55  
<https://link.springer.com/article/10.1007/s10955-026-03616-z>
- Quickest Detection of Ecological Regimes for Natural Resource Management (2024)  
*Joint with Neha Deopa*  
*Environmental and Resource Economics* 87.5: 1327-1366.  
<https://link.springer.com/article/10.1007/s10640-024-00868-9>
- Can One Hear the Size of a Target Zone? (2023)  
*Joint with Jean-Louis Arcand, Max-Olivier Hongler and Shekhar Hari Kumar*  
*Journal of Mathematical Economics* 107: 102852.  
<https://www.sciencedirect.com/science/article/pii/S0304406823000459>
- The Economic Impact of Schistosomiasis (2021)  
*First author, joint with Jean-Louis Arcand, Javier Perez-Saez and Penelope Vounatsou*  
*Infectious Diseases of Poverty*, Volume 10, Article 134  
<https://idpjournal.biomedcentral.com/articles/10.1186/s40249-021-00919-z>

- Increasing Risk: Dynamic Mean-Preserving Spreads (2020)  
*Joint with Jean-Louis Arcand and Max-Olivier Hongler*  
Journal of Mathematical Economics, Volume 86, Pages 69-82  
<https://www.sciencedirect.com/science/article/pii/S0304406818301332>

## WORKING PAPERS

- A general relationship between extinction risk and carrying capacity [[Latest Version](#)]  
*Joint with Tom Ball, Andrew Balmford, Ben Balmford and Rhys Green*  
Revise and Resubmit, *Nature Communications*
- Bringing the economics of biodiversity into policy and decision-making: A target and cost-based approach to pricing biodiversity [[Latest Version](#)]  
*Joint with Ben Groom, Ian Bateman, et al.*  
Revise and Resubmit, *Nature Sustainability*
- Sacred Ecology: The Environmental Impact of African Traditional Religions [[Latest Version](#)]  
*Joint with Neha Deopa*  
Under review
- Dams, Snails and Poverty Traps [[Latest Version](#)]  
Under review
- Very Real Options: Climate Shocks and Buffer Saving in West Africa  
In progress
- No Reciprocity for the Gig Economy  
*Joint with Cecilia Chen and Miguel Fonseca*  
In progress

## POLICY

- UN / UNCTAD response to the Gaza crisis: *“Preliminary Assessment of the Economic Impact of the Destruction in Gaza and prospects for economic recovery”* (2023)  
- One-week impact: 1170 news articles published quoting the report, 70 media outlets published news on the report. Key outlet: [Reuters](#), “Gaza’s economy could take decades to recover, UN trade body says”, 31/01/2024, Reach: 44,457,382
- UN / UNCTAD report to the UN General Assembly *“The economic impact of the military operation in Gaza from October 2023 to May 2024”* (2024)  
- Generated a total of 1331 articles (including the Guardian, AP News, the New York Times and the Washington Post) and more than 100 media outlets. The document directly influenced the official statement of the Secretary General of the United Nations António Guterres.
- 2026 - currently: Chief economist of the project “Open Transaction Programme” with the Global Development Network and the Gates Foundation, to study the impact of the newly introduced open transaction network protocols in India.
- 2026 - currently: part of the team writing the HM Treasury Discount Rate Review
- Chapter 1: *“Enhancing Human Capital and Boosting Productivity by Tackling Non-communicable Diseases : Results of a Research Initiative”* joint with Jean-Louis Arcand  
- part of the *World Bank Health Capital Initiative (2024)*

## TEACHING

### University of Exeter

BEEM146 Topics in Empirical Economics - MRes course, module convenor	2021-currently
BEE3070 Economic Analysis and Pandemics - Undergraduate course, module convenor	2022-currently
MBAM964 Understanding our World - MBA course, module convenor	2025-currently

## The Graduate Institute of International and Development Studies

Stochastic Processes for Economic Modelling	2020
- PhD Course, Lecturer (March-June 2020, moved due to COVID-19)	
Introduction to Microeconomics	2017
- Pre-graduate course, lecturer	
Econometrics 1	2014-2017
- Masters course, Teaching Assistant for Prof. Nicolas Berman	
Macroeconomics 1	2017
- Masters course, Teaching Assistant for Prof. Cédric Tille	
Macroeconomics 2	2015-2017
- Masters course, Teaching Assistant for Prof. Yi Huang	

### SEMINARS

Conferences and seminars in:
- BIOECON conference (2022-2025)
- NEUDC Development Workshop, Harvard University (2023)
- MUSEES Conference on Uncertainty Modeling (EM Lyon Business School, 2022)
- CSAE Annual Conference, University of Oxford (2021,2023)
- EAERE Annual conference (2021-2025)
- Italian Society of Economics (virtual, 2020)
- ClimRisk 2020, Ca' Foscari University of Venice (virtual, 2020)
- OSWEET Conference, Cornell University (virtual, 2020)
- French Association of Environmental and Resource Economists (virtual, 2020)
- University of California Berkeley (2026)
- University of Copenhagen (2026)
- London School of Economics and Political Science (2024, 2025, 2026)
- Paris School of Economics (2025)
- Lund University (2025)
- University of Groningen (2025)
- University of Wageningen (2025)
- IHEID (2015 - 2020, 2024)
- University of Geneva (2019, 2022, 2023)
- Aarhus University (2021)
- University of Montpellier (2023)
- EPFL in Lausanne (2018, 2019,2023,2024)
- ETH in Zürich (2019, 2020,2025)
- Monash University, Melbourne (virtual, 2020)
- ISS in The Hague (2019)
- University of Padua (2017)
- Ca' Foscari University of Venice (2017, 2018).

### PROGRAMMING LANGUAGES

Main programming in R, Python and Mathematica.  
Subroutines in C++. User of the TensorFlow ecosystem.

### OTHER EMPLOYMENT

Active classical concert pianist, currently performing worldwide as soloist and chamber musician. <a href="#">Music website</a>	2002 - Present
United Nations Conference for Trade and Development - Consultant	2023-currently
Global Development Network - Consultant, chief economist for the project "Open Transaction Programme"	2026-currently

European University Institute  
- Research Associate

2017-2018

*Banca Etica* (Ethical Bank), Padova  
- Risk Analyst

2005-2006