LISA THALHEIMER

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SUMMARY

Climate economist researching the impacts and human responses of climate change with expertise in data science and entrepreneurship.

Version: March 2023

EDUCATION

University of Oxford, Oxford, UK
DPhil in Geography and the Environment, 2021
Dissertation: *Climate mobilities in East Africa: Methods towards attributing human mobility and extreme weather events in the era of climate change*
Supervisor: Friederike Otto, Examination Committee: Myles Allen and Michael J. Puma

Columbia University in the City of New York, New York, NY
Master of Science in Sustainability Management, 2014 – 2016

Business & Information Technology School, Iserlohn, Germany
Bachelor of Science in Business and Economics (double degree), 2008 – 2013

RELEVANT PROFESSIONAL & ACADEMIC EXPERIENCE

United Nations University, Bonn, Germany   Nov 2022–
Senior Researcher - Institute for Environment and Human Security (UNU-EHS)
Leads a small team of social and data scientists, supporting the UN on climate change related conflict and migration research and policy. Key developer of innovative uses of data science and participatory research. Works with insurance companies and governments to undertake unique and valuable risk assessments, monitor activities, and generate solutions that leverage climate action. Part-time lecturer at University of Bonn (WPM4 - Vulnerability, Disaster Risk Management, Emergency Preparedness and Response).

Princeton University, Princeton, NJ   Nov 2021–Oct 2022
Postdoctoral Research Associate at the Princeton School of Public and International Affairs - Impacts & Human Responses to Climate Change
Supervisor: Michael Oppenheimer

Frontiers, Lausanne, Switzerland   Apr 2022–
Associate Editor Frontiers in Climate – Climate Mobility

The World Bank, Washington, D.C.   Mar–Dec 2022
Climate Change Consultant
Quantitative analyses on social and conflict implications from climate change in Somalia. Leading a group of three external consultants.

Knowledge Action Network on Emergent Risks and Extreme Events (Risk KAN)   2022–2024
Risk KAN Steering Committee member

Climate Econometrics, Oxford   2018–
Associate Researcher (since September 2021)
Doctoral Researcher, Nuffield College/ Institute for New Economic Thinking (2018–2021)

European Cooperation in Science and Technology   2019–2021
Working Group Member of the EU COST Action "Drylands Facing Change" (CA16233).

The World Bank, Washington, D.C.   2016–2018
Environmental Economist
Mentor: Michael Toman

The Earth Institute, New York, N.Y.   2014–2016
Research & Teaching Assistant, Research Program on Sustainability Policy & Management

International Monetary Fund, Washington, D.C.   2015
Fund Internship Program

Volkswagen AG, Wolfsburg & Berlin, Germany   2012–2013
Undergraduate Researcher, Mobility Services/ Sustainability Initiative

VISITING POSITIONS

Visiting Scholar, Potsdam Institute for Climate Impact Research (PIK)	Jun-Jul 2022
Visiting Scholar, Vienna University of Economics and Business	Sep 2021 & Aug 2022
Visiting Scholar, International Institute for Applied Systems Analysis	Aug 2021
Visiting Researcher, IFRC/ Red Cross Climate Centre (remotely)	Apr 2020
Visiting Researcher, Universidad Latina de Costa Rica	Feb 2013
Visiting Student, Faculty of Economics and Business, CUNY	2010

AWARDS, GRANTS & SCHOLARSHIPS

2022	German Foundation for Peace Research (joint with PIK, Potsdam)	€	18,300
2021	WRI India (sponsored by Blackrock & Microsoft) hackathon (first place)	$	30,000
2020	IIASA Young Scientist Summer Programme Fellowship	€	1,350
2020	ECI Sustainability Fellowship	£	3,000
2019	Max-Planck Institute for Biogeochemistry conference stipend	€	500
2019	Ford Foundation Research Grant	$	2,000
2018	Royal Geographical Society-IBG conference bursary	£	100
2018	Christ Church Language Study Grant, Oxford	£	250
2018	Doctoral writing grant, ECI, Oxford	£	350
2018-2021	Climate Econometrics Research Fellowship, Nuffield College, Oxford	£	9,000
2018-2021	German Federal Ministry of Education and Research Doctoral Fellowship	€	82,200
2015	IMF Fund Internship Program Research Grant, Washington D.C.	$	13,500

SELECTED HONOURS

2020	Christ Church essay competition winner to attend the Leonardo da Vinci exhibition (Paris).
2019	Modeling the World's Systems, award for best presentation, University of Pittsburgh.
2018	Royal Geographical Society (RGS) Ambassador.
2018	RGS Royal Society Mid-Term Conference Award.
2018	Galilee Institute Israel, Study Award.
2017	Global Youth Climate Network Climate Ambassador, The World Bank.

SERVICE & DIVERSITY, EQUITY and INCLUSION ADVANCEMENT

Founder & co-chair, Talking research: Science communication training for PhD students and postdocs	Princeton, NJ	Mar 2022 – present
Member, Knowledge Action Network on Emergent Risks and Extreme Events	global	Feb 2022 – present
Interviewer, Geography undergraduate admissions	Christ Church, Oxford	Dec 2020
Senior Common Room Liaison Officer	Christ Church, Oxford	May – Dec 2020
Global Youth Climate Network Ambassador	World Bank Youth Community	2017 – 2020
Environment & Ethics Officer	Christ Church, Oxford	Dec 2017 – May 2020
Fundraiser, Bikes for the World	Washington, D.C.	2016 – 2017
Contributor	State of the Planet, Columbia University, NY	2015 – 2016
Graduate Consultant	Columbia Impact Investing Initiative, Columbia University	2015
Co-organiser	Campus Symposium, Business and Information Technology School, Iserlohn	2009 – 2011

PUBLICATIONS

h-index 6, citations 191   (Google Scholar, 13 Mar 23)

ARTICLES IN PEER-REVIEWED JOURNALS

Thalheimer, L., Schwarz, M. P., Pretis, F. (2023). Large weather and conflict effects on internal displacement in Somalia with little evidence of feedback onto conflict. *Global Environmental Change*. https://doi.org/10.1016/j.gloenvcha.2023.102641

Otto, F., […], **Thalheimer, L.**, […] (2023). Climate change increased extreme monsoon rainfall, flooding highly vulnerable communities in Pakistan. *Environmental Research: Climate*. https://doi.org/10.1088/2752-5295/acbfd5

Thalheimer, L., Heinrich, D. Haustein, K. and Singh, R. (2022). Applying extreme event attribution to climate-related human mobility. *Meteorology*. https://doi.org/10.3390/meteorology1040029

Thalheimer, L., Choquette-Levy, N. and Garip, F. (2022). Multi-method evidence for when and how compound events affect human mobility. *iScience*. https://doi.org/10.1016/j.isci.2022.105491.

Martin, M., […] **Thalheimer., L.,** […] (2022). Ten new insights in climate science 2022. *Global Sustainability*. https://doi.org/10.1017/sus.2022.17.

Thalheimer, L. (2022). Compound impacts of extreme weather events and COVID-19 on climate mobilities. *AREA*. https://doi.org/10.1111/area.12821.

Thalheimer, L., Jjemba, E., & Simperingham, E. (2022). The role of forecast-based financing. Forced Migration Review, (69), 34-36.

Thalheimer, L., Simperingham, E. and Jjemba, E. (2022) 'The role of anticipatory humanitarian action to reduce disaster displacement'. *Environmental Research Letters*. doi.org/10.1088/1748-9326/ac4292.

Thalheimer, L., Williams, D.S., Van der Geest, K., Otto, F.E.L., (2021). Advancing the evidence base of future warming impacts *on* human mobility in African drylands. *Earth's Future*. doi.org/10.1029/2020EF001958.

Thalheimer, L., Otto, F.E.L., Abele, S.J., (2021). Deciphering Impacts and Human Responses to a Changing Climate in East Africa. *Frontiers in Climate*. doi: 10.3389/fclim.2021.692114.

Stavi, I., Paschalidou, A., Kyriazopoulos, A. P., ..., **Thalheimer, L.**, Williams, D.S., ... & Ficko, A. (2021). Multidimensional Food Security Nexus in Drylands under the Slow Onset Effects of Climate Change. *Land*, *10*(12), 1-14.

Heslin, A. and **Thalheimer, L.** (2020) The Picture from Above - Using Satellite Imagery to Overcome Methodological Challenges in Studying Environmental Displacement. *Oxford Monitor of Forced Migration*.

Under review/ revision

Thalheimer, L., and Woi, S. O. (accepted). Taking stock of displacement data to explain weather and climate-related displacement outcomes. *Climate Risk Management*.

Tradowsky, J., […], **Thalheimer, L.**, […] (in revision). Attribution of the heavy rainfall events leading to severe flooding in Western Europe during July 2021. *Climatic Change*.

Harrington, L., […], **Thalheimer, L.**, […] (in revision). Factors other than climate change exacerbated the impacts of severe low rainfall in southern Madagascar, 2019-21. *Environmental Research: Climate*.

Thalheimer, L., Gaupp, F., Webersik, C., (in revision). Impact pathways of vulnerability and systemic risk on food insecurity in Somalia. *World Development Perspectives*.

In preparation / submitted/ invited

Zens, G. and **Thalheimer, L.** (submitted). The Relationship Between Conflict and Displacement: Bayesian

Modeling of Disaggregate Data From Somalia. *World Development.*

Thalheimer, L., Muttarak, R., Crespo Cuaresma, J., Li, S., Otto, F.E.L., Oppenheimer, M. (submitted). Attributing human mobility to climate change: A feasibility study. *Climatic Change*.

Thalheimer, L., Šedová, B., Oppenheimer, M., (in preparation). When does climate (im)mobility cause conflict? The need for an expert assessment.

Working Papers

Kruitwagen, L., Ardene, C., Lees, T., **Thalheimer, L.**, (preprint). Using Neural Hydrology to forecast water reservoir levels across India. Available at https://eartharxiv.org/repository/view/3381/.

Thalheimer, L., (2020) 'Towards attributing climate-related displacement in Somalia to anthropogenic climate change. IIASA YSSP Report. Laxenburg, Austria.

PAPERS IN EDITED VOLUMES

Thalheimer, L. (2022) 'Compounding vulnerabilities and human mobility in East Africa', in Migration in the Face of Emerging Risks: Historical Case Studies, New Paradigms, and Future Directions, Palgrave-Mcmillan.

Thalheimer, L., and Webersik, C. (2020) 'Climate Change, Conflict and Migration', In Krieger, T., Panke, D. and Pregernig, M. (eds.) Environmental Conflicts, Migration and Governance, Bristol: Bristol University Press, pp. 59-82.

ESSAYS, REPORTS AND ISSUE BRIEFS

1. Harrington, L., […], **Thalheimer, L.**, […] (2023). The role of climate change in extreme rainfall associated with Cyclone Gabrielle over Aotearoa New Zealand's East Coast. (World Weather Attribution). Available at https://spiral.imperial.ac.uk/bitstream/10044/1/102624/10/Scientific%20report%20New%20Zealand%20Floods.pdf.

2. Zachariah, M., […], **Thalheimer, L.**, […] (2022). Climate change exacerbated heavy rainfall leading to large scale flooding in highly vulnerable communities in West Africa. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/Nigeriafloods_scientific-report.pdf.

3. Future Earth, The Earth League, WCR (2022). 10 New Insights in Climate Science 2022. (2022). Stockholm. Available at https://10insightsclimate.science/wp-content/uploads/2022/11/10NICS-2022-Report_digital.pdf.

4. Otto, F.E.L., […], **Thalheimer, L.**, […] (2022). Climate change likely increased extreme monsoon rainfall, flooding highly vulnerable communities in Pakistan. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/Pakistan-floods-scientific-report.pdf.

5. Zachariah, M., […], **Thalheimer, L.**, […] F.E.L. Otto (2022). Without human-caused climate change temperatures of 40 °C in the UK would have been extremely unlikely. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/UK-heat-scientific-report.pdf.

6. Zachariah, M., […], **Thalheimer, L.**, […] F.E.L. Otto (2022). Climate change increased heavy rainfall, hitting vulnerable communities in Eastern Northeast Brazil. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/Brazil-Floods-Scientific-report.pdf

7. Jjemba, E. and **Thalheimer, L.** (2022). 'Harnessing anticipatory action to avoid or reduce disaster displacement'. Anticipation Hub. Available at https://www.anticipation-hub.org/news/harnessing-anticipatory-action-to-avoid-or-reduce-disaster-displacement.

8. Zachariah, M., […], **Thalheimer, L.**, […], F.E.L. Otto (2022). 'Climate Change made devastating early heat in India and Pakistan 30 times more likely'. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/India_Pak-Heatwave-scientific-report.pdf.

9. Pinto, I., […], **Thalheimer, L.**, […] et al. (2022). 'Climate change exacerbated rainfall causing devastating flooding in Eastern South Africa'. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/WWA-KZN-floods-scientific-report.pdf.

10. Otto, F.E.L., […], **Thalheimer, L.**, […] et al. (2022). 'Climate change increased rainfall associated with tropical cyclones hitting highly vulnerable communities in Madagascar, Mozambique & Malawi'. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/WWA-MMM-TS-scientific-report.pdf.

11. Šedová, B. and **Thalheimer, L.** (2022). 'How Climate Change and Migration Cascade in the EU'. EuropeNow. Available at: https://www.europenowjournal.org/2022/01/30/how-climate-change-and-migration-can-cascade-in-the-eu/.

12. **Thalheimer, L.**, Webersik, C. and Gaupp, F. (2022). 'Systemic Risk Emerging from Compound Vulnerabilities'. Global Assessment Report on Disaster Risk Reduction (GAR2022). Available at https://www.undrr.org/publication/systemic-risks-emerging-compound-vulnerabilities.

13. Harrington, L., […], **Thalheimer, L.**, […], et al. (2021). 'Attribution of severe low rainfall in southern Madagascar, 2019-21'. (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/ScientificReport_Madagascar.pdf.

14. Kreienkamp, F., […], **Thalheimer, L.**, […] (2021). 'Heavy rainfall which led to severe flooding in Western Europe made more likely by climate change' (World Weather Attribution). Available at https://www.worldweatherattribution.org/wp-content/uploads/Scientific-report-Western-Europe-floods-2021-attribution.pdf.

15. **Thalheimer, L.**, Jjemba, E. and Simperingham, E. (2020) 'Forecast-based Financing and Disaster Displacement: Acting Early to Reduce the Humanitarian Impacts of Displacement'. Available at https://www.forecast-based-financing.org/wp-content/uploads/2020/10/RCRC_IFRC-FbF-and-Displacement-Issue-Brief.pdf.

16. Parks, R.M. and **Thalheimer, L.** (2020) 'The hidden burden of pandemics, climate change and migration on mental health' IOM. Available at https://environmentalmigration.iom.int/blogs/hidden-burden-pandemics-climate-change-and-migration-mental-health.

17. De Fontaubert, C., Hart, T., **Thalheimer, L.**, Dubow, AZ, Million, JMF, Collier, JB (2020) 'Somalia Country Environmental Analysis: Diagnostic Study on Trends and Threats for Environmental and Natural Resources Challenges' The World Bank. Available at https://openknowledge.worldbank.org/handle/10986/34058.

18. **Thalheimer, L.** et al. (2019) 'Policy Brief: Food Security in Drylands Under a Changing Climate' EU COST Working Group I (The Climate, Food Security and Population Nexus). DOI: 10.13140/RG.2.2.12140.72324.

SCIENCE COMMUNICATION

1. **Thalheimer, L.**, and Šedová, B (2021). 'Warum Klimamigration für die EU relevant ist'. Der Standard. Available at https://www.derstandard.at/story/2000130786948/warum-klimamigration-fuer-die-eu-relevant-ist.

2. **Thalheimer, L.** (2020) 'How COVID-19 complicates the journey for climate migrants' IIASA Nexus. Available at https://blog.iiasa.ac.at/2020/08/19/how-covid-19-complicates-the-journey-for-climate-migrants/.

3. Wenham, A. and **Thalheimer, L.** (2020) 'On the move: What drives Somalia's migration?'. Available at http://www.climateeconometrics.org/2020/06/30/on-the-move-what-drives-somalias-migration/.

4. **Thalheimer L.** (2018) 'Extreme Weather Events And Population Movement In The Era Of Climate Change' Population Geography Research Group (PGRG). Available at: https://popgeog.org/2018/06/21/extreme-weather-events-and-population-movement-in-the-era-of-climate-change/.

Refereeing: Global Environmental Change; Nature Communications; Climate and Development; Earth's Future; International Journal of Environmental Research and Public Health; Weather, Climate, and Society.

AUDIO

1. "Will climate migration lead to conflict?", Futuremakers podcast discussion with Prof Peter Millican, 15 March 2020.
2. "COP 25 – what happened?", Futuremakers podcast discussion with Prof Peter Millican, 19 December 2019.

OTHER MEDIA

1. Klimaforscherin: "Viele Somalier werden von Dürren vertrieben" (German), Austria Presse Agentur, 24 August 2022.

2. „Hunger in Somalia", interview with Somini Sengupta, The New York Times, 14 June 2022.

3. " Die verheerenden Folgen der Armut in Madagaskar", Frankfurter Rundschau press brief (in German), with Joachim Wille, 02 December 2021.

4. „Madagascar's food crisis has been blamed on climate change. These scientists say that's wrong", CNN press brief, with Angela Dewan, 02 December 2021.

5. „SWR Aktuell Rheinland-Pfalz" (in German), TV interview with Dorit Becker, 06 November 2021.

6. "Europe's floods: Lessons from German tragedy", BBC interview with James Cook, 28 October 2021.

7. "Sustain What: Stop Debating Climate Dislocation and Start Enhancing Climate Mobility", with Andrew Revkin, online, The Earth Institute (Columbia University), 22 January 2021.

8. "Matching human movement to climate change", IIASA Nexus interview, 20 Nov 2020.

9. "What is Climate Migration?", Peril and Promise (Public Broadcasting Service), 17 July 2019.

PLENARY & KEYNOTE TALKS

- "Acting early to reduce the humanitarian impacts of displacement", Global Dialogue Platform 2021, online, 08 December 2021.
- "Forecast- based Financing and Disaster Displacement", Global Protection Forum 2020, online, 10 September 2020.
- "Climate displacement, humanitarian needs and Forecast-based Financing", European Geosciences Union Press Conference, online, 07 May 2020.
- Conference of the Parties (COP25) Side Event - Climate Change, Displacement and Migration, Madrid, December 2019.

SELECTED INVITED TALKS

"Climate Impacts on Conflict and Migration"
- Conference on the Occasion of BiB's 50th Anniversary, Federal Institute for Population Research, Wiesbaden (July 2023)
- Climate Displacement: A Crisis in South Asia, Columbia Climate School (Oct 2022)
- Climate Change 101 Policymaking on a Rapidly Warming Planet, Princeton University (Sep 2022)
- Knowledge Action Network on Emergent Risks and Extreme Events (online, Apr 2020 & Feb 2022)
- Columbia University Managed Retreat Conference (Jun 2021, Jun 2023)
- ETH Zurich 2020 EAERE-ETH European Winter School (Jan 2020)
- Herrenhausen Conference "Extreme Events – Building Climate Resilient Societies", Volkswagen Foundation & Max Planck Institute for Biogeochemistry, Hanover (Oct 2019).
- Columbia University Correlated Extremes Workshop (May 2019)
- MURI Migration Project Annual Meeting (May 2019)
- Econometric Models of Climate Change Conference, University of Rome (Sep 2018)

"Forecast-based financing for Disaster Displacement"
- Princeton School of Public and International Affairs expert panel (Mar 2022)
- Invited expert "Training on anticipatory action in conflict situations", Global Public Policy Institute (online, Oct 2021)
- GIZ, German Development Agency, online (Oct 2020)

"*Modelling framework for attributing human mobility and climate change*"
- Wittgenstein Centre Conference, online (2020, 2022)
- Vienna University of Economics and Business, Institute for Macroeconomics, Vienna (Sep 2021)
- Compound weather and climate events, European Geosciences Union, Vienna (online, Apr 2021)
- "The climate impactions of the economic and demographic slowdown", with Prof Danny Dorling, The Oxford School of Climate Change, Brasenose College, Oxford (Feb 2020)
- University of Pittsburgh, Modeling and Managing Complicated Systems (MOMACS), Washington, DC (May 2019)

"*Systemic risks*"
- Drought Impacts and Migration, United Nations University (online, Mar 2019).
- EU COST Action (CA16233) Workshop, Arad, Israel (Feb 2019).
- "Food and Climate Migration", Oxford Food Thinkers Lunch Club (Nov 2017)

OUTREACH ACTIVITIES

1. What's Up With The Weather?, Princeton Plasma Physics Laboratory, Princeton, 04 March 2023
2. Financial Times, African climate expert supporting Africa editor David Pilling (2021 – present)
3. STAND Student Festival "Climate Migration", online, 20 October 2020
4. Oxford Museum of Natural History - Super Science Saturday, 23 November 2019

TEACHING EXPERIENCE AND WORKSHOPS

- Ongoing: GIZ e-learning "Human Mobility In The Context Of Climate Change (HMCCC)"
- Spring 2023: Risk Management in the Context of Climate Change (jointly with University of Bonn); Climate Change and Conflict (at Princeton SPIA)
- 2nd Training School on Compound Events (with Radley Horton), September 2022, Como, Italy
- Climate Mobility Research Symposium, Columbia University, September 2022
- Talking Research: Communicating your Research to the Public, Princeton University, April 2022
- Tutorial Environmental Geography, Christ Church, University of Oxford, February 2021 (online)
- Tutorial Attribution Science, Mansfield College, February 2020
- The Oxford School of Climate Change, February 2020
- Drought Impacts, United Nations University (UNU-EHS), March 2019 (online)
- UNIQ Summer School, University of Oxford, July 2018 and 2019
- Teaching Assistant, Economics of Sustainability Management, Columbia University, 2015

PROFESSIONAL AFFILIATIONS

World Weather Attribution,	Potsdam Institute for Climate Impact Research
American Geophysical Union,	European Geosciences Union,
Knowledge-Action Network on Emergent	Royal Geographical Society,
Risks and Extreme Events (Risk KAN),	The Royal Academy of Dance.

LANGUAGES
Human: German & English (native/ bilingual); French & Spanish (advanced), Yiddish (advanced beginner)
Programming: Python, R, FME, (Q)GIS, OxMetrics, ArcGIS, ArcGIS StoryMaps

REFERENCES

Michael Oppenheimer
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