

Marco Ferro

PhD Candidate ~ Chair of Economics of Sustainable Land Use & Bioeconomy

[Google Scholar](#)

marco.ferro@ilr.uni-bonn.de

Bonn, Germany

Research Interests

My research examines land-climate interactions from a multidisciplinary perspective, with a particular focus on agricultural ecosystems. I seek to understand the drivers of anthropogenic land use and land cover change and their impacts on the climate system. To explore these dynamics, I employ a variety of methods, including econometrics for causal inference, spatial statistics, machine learning, and numerical simulations with regional climate models. I use multiple data sources from different disciplines, ranging from geo-referenced data to economic and climate data. I also have experience in processing large amounts of data using high-performance computing (HPC).

Education and Research Experience

Sep 2016 – Sep 2019

Alma Mater Studiorum, University of Bologna, Italy
Graduation in Economics, Markets and Institutions (Bachelor's Degree)

Sep 2018 – Feb 2019

Erasmus+ learning mobility
Alexandru Ioan Cuza, University of Iași, Romania

Sep 2019 – Oct 2021

Alma Mater Studiorum, University of Bologna, Italy
Statistics, Economics and Business (Master's Degree)
Final mark: 110/110 cum laude

Nov 2021 – Feb 2022

Research Internship
BOKU University, Vienna

Apr 2022 – May 2026 (Expected)

PhD Candidate at the Institute for Food and Resource Economics
University of Bonn, Bonn

Programming Skills

Proficient:

- R
- QGIS
- Bash and Shell Scripting

Intermediate:

- Regional Climate Modeling (TSMP)
- Version Control

Basic:

- Python
 - Google Earth Engine
-

Presentations and Lectures

Aug 2023

Presentation in an organized session at the European Association of Agricultural Economists (EAAE) Conference, Rennes (FR)

June 2024

Lecture for the seminar of the master course "Impact Evaluation of Conservation & Development Projects and Environmental Policies". Topic: Regression discontinuity design and instrumental variables in R.

Nov 2024

Full oral presentation at the Global Land Programme (GLP) Conference, Oaxaca (MEX).

Aug 2025

Full oral presentation at European Association of Agricultural Economists (EAAE) Conference, Bonn (DE)

Nov 2025 (Planned)

Lecture for the courses "Sustainable Food Systems" and "Environmental Data Science". Topic: Causal Inference in Agricultural and Environmental Economics. Emory University, Atlanta.

Publications and Working Papers

Burchfield E, **Ferro M**, Hüttel S, Lakes T, Leonhardt H, Niedermayr A, Rissing A, Seifert S and Wesemeyer M (2024) Towards a comprehensive analysis of agricultural land systems in the EU and US: A critical view on publicly available datasets, *Land Use Policy* 147 107371, Online:

<https://www.sciencedirect.com/science/article/pii/S0264837724003247>

Ferro M, Börner J, Hüttel S, Kowalski K, Hostert P and Kis-Katos K (2025) The causal effect of agricultural landscape simplification on Germany's grasslands during a compound drought and heatwave in 2018, *AgEcon Search*, Series: 26, Online:

<https://ageconsearch.umn.edu/record/355805?v=pdf>

(R&R at the *American Journal of Agricultural Economics*)

Ferro M, Dutta T, Hüttel S, Lindner M, Poll S and Börner J (2025) Climate-relevant land cover composition and configuration trajectories in Europe, *Environ. Res. Lett.*, Online:

<http://iopscience.iop.org/article/10.1088/1748-9326/adc8be>

Ferro M, Heckelei T, Hüttel S, Poll S, Börner J (In Preparation) Quantifying the effects of land cover configuration on climate using a regional climate model and neutral landscapes.

Vastenaekels J, Burchfield E, Mathias JD, **Ferro M**, et. al. (In Preparation) Beyond methodological silos in agri-food futuring research.

Languages

Italian
English
Spanish
French

Native Language
C1
B1
A2

References

Prof. Jan Börner
Prof. Silke Hüttel
Dr. Emily K. Burchfield

jborner@uni-bonn.de
silke.huettel@uni-goettingen.de
emily.burchfield@emory.edu
