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Academic Positions

Fall 2024 - Assistant Professor of Economics, Universidad ORT Uruguay

Education

PhD in Economics, New York University, 2018–2024
Thesis Title: *Essays on Climate Adaptation*
MA in Economics, Universidad de Montevideo, 2015–2019
BA in Economics, Universidad de Montevideo, 2012–2015

Teaching and Research Fields

Environmental and Resource Economics, Agricultural Economics, Energy Economics, Applied Microeconomics

Teaching Experience

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| Spring 2025 (ongoing) | Mathematical Economics, Universidad ORT Uruguay, Instructor |
| Fall 2024 | Intermediate Microeconomics, Universidad ORT Uruguay, Instructor |
| Fall 2022 | Labor Economics, New York University, Course Assistant |
| Spring 2022 | Introduction to Econometrics, New York University, Teaching Assistant |
| Fall 2021, Spring 2021, Fall 2020 | Statistics, New York University, Teaching Assistant |
| Fall 2017, Fall 2016 | Public Economics, Universidad de Montevideo, Teaching Assistant |

Research Experience

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| 2021 | New York University, Graduate Assistant, Prof. Alfred Galichon |
| 2017-2018 | Universidad de Montevideo, Research Assistant, Prof. Alejandro Cid and Prof. Juan Dubra |
| 2014–2016 | Universidad de Montevideo, Research Assistant, Prof. Ana I. Balsa and Prof. Marcelo Cafferla |

Honors, Scholarships, and Fellowships

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| 2023-2024 | Sixth Year Funding, Department of Economics, New York University |
| 2023 | Data Grant for the project “ <i>Optimal and Sustainable</i> |

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| | <i>Groundwater Use: Evidence from Nebraska,”</i> CV Starr Center, New York University |
| 2023 | Research Grant for the project “ <i>The Impact of Solar Panel Installation on Electricity Consumption and Production: A Firm’s Perspective,</i> ” CAF – Development Bank of Latin America and the Caribbean |
| 2022 | Research Grant for the project “ <i>Illegal Migration and Weather Shocks: Evidence from Rural Mexico,</i> ” CAF – Development Bank of Latin America and the Caribbean |
| 2018-2023 | MacCracken Fellowship, New York University |
| 2016-2018 | Excellence Scholarship, Universidad de Montevideo |

Conferences and Seminars

1st LAERE Congress (2025); Workshop on Environmental Economics at RIDGE (2024); LACEA-LAMES (2024); 6th Workshop on Environmental Economics and Climate Change at UCA (2024); XXXIX JAE del Banco Central del Uruguay (2024); 28th EAERE Conference (2024); 10th AWEEE (2024); 98th AES Conference (2024); Universidad ORT Uruguay (2024); NCSU (2024); NHH (2024); NYU (2023); Universidad de Montevideo (2023); Academic Workshop on Sustainable Development in Latin America and the Caribbean at CAF (2022).

Working Papers

Optimal and Sustainable Groundwater Use: Evidence from Nebraska

Abstract: The agricultural sector is the primary water consumer in the US. Groundwater is one of its main sources, with 65% of irrigated farmland relying on groundwater for their water supply. Groundwater use presents a common pool problem: if a farmer pumps groundwater, she decreases the aquifer's water table and thus increases the cost of pumping for farmers in the same aquifer. Studying such a problem is challenging due to a lack of markets and data on groundwater use. In this paper, I leverage detailed farmer-level data on (ground)water use, crop choices, and crop yields to study the equilibrium implications of the current groundwater costs. I focus on the Ogallala Aquifer in Nebraska. In order to estimate the effect of water costs on water use and crop choices, I combine a crop-growth model with an economic model. I use the crop-growth model to recover the precise relation between water use and crop yields. I use the economic model to estimate the marginal cost of water for farmers. I then quantify how farmers respond to water costs by switching which crop they plant or changing the water use per planted crop. I find that farmers are inelastic to water costs: a 10% increase in the water cost would decrease water use by 3%. Moreover, I find that farmers adapt to higher water costs by both reducing the water use per planted crop and fallowing the land. Lastly, I utilize my estimates to compute the optimal and sustainable tax on groundwater use.

Presented at: 1st LAERE Congress; Workshop on Environmental Economics at RIDGE; LACEA-LAMES; 6th Workshop on Environmental Economics and Climate Change at UCA; XXXIX JAE del BCU; 28th EAERE Conference; 98th AES Conference; Universidad ORT Uruguay, NCSU; NHH; NYU; Universidad de Montevideo.

The Impact of Solar Panel Installation on Electricity Consumption and Production: A Firm’s Perspective (with Natalia D’Agosti)

Abstract: Since 2010, the Uruguayan government has fostered the installation of solar panels among firms to promote the production of small-scale renewable electricity. Under this policy, firms that have installed solar panels are allowed to feed any surplus electricity into the grid. Using a novel data set on firm-level electricity consumption and grid feed-in, we study the economic and environmental

consequences of this policy. First, we find that installing a solar panel substantially reduces the amount of electricity extracted from the grid. Second, we find that it increases the electricity injected into the grid. Third, we find that it reduces CO2 emissions only marginally. Fourth, we provide evidence of a rebound effect: electricity consumption increases between 20% and 26% after solar panel installation. Lastly, we propose an alternative policy that allows firms to store their electricity surplus in batteries instead of immediately injecting it into the grid. This policy would further reduce CO2 emissions by 2.7% by allowing electricity injection into the grid at night when fossil fuel facilities satisfy most of the electricity demand.

Presented (by me or my coauthor) at: LACEA-LAMES (2024); 10th AWEEE; ACREEF Workshop; SETI; FSR Climate Conference; Workshop on Fair Energy Transition in Latin America and the Caribbean at CAF; University of Edinburgh; Rutgers University; NYU; Universidad Católica del Uruguay; Universidad de Montevideo.

Illegal Migration and Weather Shocks: Evidence from Rural Mexico (with Eungik Lee) [*Revision requested at Environmental and Resource Economics*]

Weather shocks pose many challenges for workers in developing countries. International migration can work as a coping mechanism for this reality. The legal status of migrants is critical to understand the effect of these shocks on workers' well-being. In this paper, we study the effect of weather shocks on legal and illegal migration from rural Mexico to the United States. First, we find that weather shocks in the wet season increase migration. The increase is entirely driven by illegal migrants. Second, we propose a mechanism to explain this result: the effect of weather on agricultural production. We find that weather shocks decrease total harvested land and corn production. Third, we show that young and unwealthy workers are more sensitive to weather shocks. Lastly, we use our estimates to have a first glance at climate change's impact on migration. We find that climate change would increase illegal migration significantly.

Presented (by me or my coauthor) at: Academic Workshop on Sustainable Development in Latin America and the Caribbean at CAF; NYU.

Other Information

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| Programming Skills: | DSSAT, Git, Latex, MatLab, Python, R |
| Selected Courses: | Sloan/Berkeley Summer School in Environmental and Energy Economics, 2022 |
| Languages: | English (proficient), Spanish (native) |
| Citizenships: | Italian, Uruguayan |

References

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