# Luciano I. de Castro

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# Research Interests

Dynamic Economics, Political Economy, Environmental & Energy Economics, Economic (Auction, Game) Theory.

T 1	
Edu	cation

Ph.D. in Mathematical Economics	Instituto de Matemática Pura e Aplicada (IMPA, Brazil)	2001-2004
M.Sc. in Mathematical Economics	Instituto de Matemática Pura e Aplicada (IMPA, Brazil)	1998-2000
Electronic Engineer	Instituto Tecnológico de Aeronáutica (ITA, Brazil)	1990-1995

# Professional Experience

Professor Professor Advisor to the President Associate Professor Assistant Professor Visiting Assistant Professor Visiting Assistant Professor Visiting Assistant Professor Visiting Assistant Professor Post-doc Researcher 1st-Lieutenant Engineer	Department of Economics, University of Iowa Instituto de Matemática Pura e Aplicada (IMPA, Brazil) Petrobras (Brazilian oil company) Department of Economics, University of Iowa MEDS, Kellogg School of Management, Northwestern University MEDS, Kellogg School of Management, Northwestern University Department of Economics, University of Illinois Department of Economics, Universidad Carlos III de Madrid Instituto de Matemática Pura e Aplicada (IMPA, Brazil) Brazilian Air Force	2021- 2019-2021 2019 2014-2021 2010-2014 2008 2007-2010 2005-2007 2004-2005
1 <sup>st</sup> -Lieutenant Engineer	Brazilian Air Force	1995-2000

## Editorial Service

Associate Editor	Economic Theory	2010-
Associate Editor	Economic Theory Bulletin	2013-

## Publications

$\underline{\text{Year}}$	<u>Title</u>	Journal / Reference	co-authors
2025	Dynamic Economics with Quantile Preferences	Theoretical Economics,	Galvao,
		20, 353-425	Nunes
2024	How to Deal with Exchange Rate Risk in Infrastructure and	Journal of Public	Frischtak
	Other Long-Lived Projects	Economic Theory, 2024;	Rodrigues
		27:e70003,	
2023	A Dynamic Quantile Model for Distinguishing Intertemporal	European Economic	Galvao,
	Substitution from Risk Aversion	Review, 159, 104587	Cundy
			Westenberger
2023	Joint Elicitation of Elasticity of Intertemporal Substitution,	International Journal of	Galvao,
	Risk and Time Preferences	Finance & Economics,	Montes-Rojas,
		1-22.	Olmo
2023	Numerical Solution of Dynamic Quantile Models	Journal of Econ.	Galvao,
		Dynam. and Control,	Muchon
		148,  104617	
2023	The Future of Price Formation of Electricity in Brazil	Revista de Economia	Borges, Simone
	(published in Portuguese, peer-reviewed)	Contempor., 27, 1-54.	
2023	Conditional Quantiles: an Order-Theoretical Approach	Bernoulli $29(3)$ , $2392$ -	Galvao, Nunes,
		2416.	Zubelli

$\underline{\text{Year}}$	<u>Title</u>	Journal / Reference	<u>co-authors</u>
2022	How Different is Brazilian Political System? A Comparative Study	E-Legis, 15(37)	Camara, Oliveira
2022	Experiments on Portfolio Selection: A Comparison between Quantile Preferences and Expected Utility Models	Journal of Behavioral and Experimental Economics, 97, 101822	Galvao, Kim, Montes-Rojas, Olmo
2022	Do People Maximize Quantiles?	Games and Economic Behavior, 132, p. 22-40	Galvao, Noussair, Qiao
2022	Portfolio Selection in Quantile Utility Models	Annals of Finance, 18, 133-18	Galvao, Montes-Rojas, Olmo
2022	Static and Dynamic Quantile Preferences	Economic Theory, 73, 747-779	Galvao, Montes-Rojas, Olmo
2020	Quantile selection in non-linear GMM quantile models	Economics Letters, 195, 10940	Galvao, Montes-Rojas
2020	A new approach to the rational expectations equilibrium: existence, optimality and incentive compatibility	Annals of Finance, 16, 1-61	Pesce, Yannelis
2019	Dynamic Quantile Models of Rational Behavior	Econometrica, 87, p. 1893-1939	Galvao
2019	Forget the Government: Promoting Renewables with Voluntary Action	Energy Forum, 97, p. 33-36	
2019	Smoothed GMM for quantile models	Journal of Econometrics, 213, 121-144	Galvao, Kaplan, Liu
2018	A structural model to evaluate the transition from self-commitment to centralized unit commitment	Energy Economics, 75, 560-57	Camelo, Papavasiliou, Riascos, Oren
2018	Uncertainty, Efficiency and Incentive Compatibility: Ambiguity solves the conflict between efficiency and incentive compatibility	Journal of Economic Theory, 177, 678-707	Yannelis
2017	Nash Equilibrium in Games with Quasi-Monotonic Best-Responses	Journal of Economic Theory, 172, 220-246	Amir
2017	Ambiguous implementation: the partition model	Economic Theory, 63, p. 233–261	Liu, Yannelis
2017	Implementation under Ambiguity	Games and Economic Behavior, 101, 20-33.	Liu, Yannelis
2016	Transition to Centralized Unit Commitment: An Econometric Analysis of Colombia's Experience	The Energy Journal, 37 (3), 271-291	Bernal, Riascos, Oren
2016	Expected utility or prospect theory: Which better fits agent-based modeling of markets?	Journal of Computational Science, 17 (1), 97-10	Castro, Teodoro
2015	Electricity supply auctions: understanding the consequences of the product definition	International Journal of Electrical Power and Energy Systems, 64, 285-292,	Negrete, Pulgar
2015	Free entry versus socially optimal entry	Journal of Economic Theory, 154, 112-125,	Amir, Koutsougeras
2014	Parametric Representation of Preferences	Journal of Economic Theory, 150, 642-667	Al-Najjar
2013	An Interpretation of Ellsberg's Paradox Based on Information and Incompleteness	Economic Theory Bulletin, 1 (2), 139-144	Yannelis

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$\frac{\text{Year}}{\text{2012}}$	Title		al / Reference	<u>co-authors</u>
2013	Paying for the Smart Grid	٠.	y Economics, 40	Dutra
2012	Equilibria Existence and Characterization in Auctions:	Journa	lement 1), S74-S84 al of Economic	Karney
2012	Achievements and Open Questions  Achievements and Open Questions		ys, 26(5), 911-93	танноу
2011	Core and Equilibria under ambiguity		mic Theory, $48$ ,	Pesce, Yannelis
		519-54	, ,	,
2011	Ambiguity aversion and Trade		mic Theory, 48,	Chateauneuf
2011		243-27		
2011	Tougher Educational Exam Leading to Worse Selection	Econo		Galvao
		_	Access E-Journal, 2011-17	
2011	Equilibrium Existence and Approximation of Regular	,	mic Theory, 48,	
2011	Discontinuous Games	67-85	iiio i iiooiy, 40,	
2010	Testing Affiliation in Private-Values Models of First-Price	Annal	s of Applied	Paarsch
	Auctions Using Grid Distributions		tics, vol. $4(4)$ ,	
		2073—		
2010	How to translate results from auctions to procurement		mic Letters, 106	de Frutos
2000	Characterization of Didding Dalari Material	(2), 11		Diagos -
2009	Characterization of Bidding Behavior in Multi-Unit Auctions		al of Mathematical mics, 45, 559-575	Riascos
2009	Response to Cavichi and Lemon: Our Analysis was		Electricity Journal,	Negrete, Gross
2000	Thorough	22, 1,	,	1.081000, 01000
2009	Pure Strategy Equilibria of Single and Double-Auctions with		s and Economic	Araujo
	Interdependent Values		ior, 65, 1, 25-48	
2008	Product Definition for Future Electricity Supply Auctions:		Electricity Journal,	Negrete, Gross
0000	The 2006 Illinois Experience	21(7),		A · ът ·
2008	Non-monotonicities and the all-pay auction tie-breaking rule	Econo 407-44	mic Theory $35(4)$ ,	Araujo, Moreira
2006	Corrigendum to "Existence of Equilibrium in Single and		metrica, $74(6)$ ,	
	Double Private Value Auctions	1723-4		
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Books				
$\underline{\text{Year}}$	Title& Comments		<u>Publisher</u>	$\underline{\text{co-authors}}$
2023	Teoria da Produção (in Portuguese). This is an economics tex	tbook	IMPA, forthcoming	Peñaloza
0000	about the Theory of Production	1.	O	Cl - 1
2023	Debates Constitucionais (in Portuguese). This book is a colle of articles in honor of Brazilian jurist Modesto Carvalhosa		Quartier Latin, forthcoming	Gandra Martins
	proposed a new constitution for Brazil.	, wno	101 theoming	mai miis
	proposed when communion for Diagni.			
2021	Conference Proceedings of the Interdisciplinary Symposiu	m on	Metrics	Bugarin,
	Brazilian Political System. This book collects articles selected			Schwartz
	those presented in the Symposium on Brazilian Political Sy	stem,		(co-editors)
0005	which I organized in 2021.	•-	IMDA	D
2005	Introdução à Teoria da Decisão (in Portuguese). This book		IMPA	Faro
	Introduction to Decision Theory, presented in the 25 <sup>th</sup> Bra Colloquium of Mathematics, at IMPA.	zınan		
	Conoquium of Mathematics, at IMI A.			

Year 2021 2021	Title Duração de Mandatos, Reeleição e Plebiscito de Destituição. (Term Length, Reelection and Recall) Renda Mínima: uma metodologia para definição de seu valor (Minimum Income: a methodology for defining its value)	Source Article published (in Portuguese) in the Proceedings of the Interdisciplinary Symposium on Brazilian Political System Article published (in Portuguese) in the Proceedings of the Interdisciplinary Symposium on Brazilian Political System	Co-authors
2018	The Economics of the Smart Grid Technological Innovation	Chapter 16 of the Edward Elgar Handbook of Energy Politics	Dutra
2012	Prediction Markets To Forecast Electricity Demand	Proceedings of IEEE 50th Annual Allerton Conference on Communication, Control, and Computing, 1097-1104	Cramton
2011	The Economics of the Smart Grid	Proceedings of IEEE 49th Annual Allerton Conference on Communication, Control, and Computing, 294-1301	Dutra
2011	Subjective Probability	Wiley Encyclopedia of Operations Research and Management Science	Al-Najjar
2008	Combate à Corrupção em Licitações Públicas	Compras Públicas	

# Working Papers

Title Quantile Approach to Intertemporal Consumption with Multiple Assets A Quantile Model of Investment under Uncertainty	Comments We develop a model of intertemporal consumption with multiple assets. We develop a model of firms' investment with quantile preferences.	Co-authors Galvao Ota Almeida Campello Galvao
Asset Pricing with Quantile Preferences and the	We develop an asset pricing model with quantile	Galvao
Equity Premium Puzzle	preferences.	Yao
Electricity Market Design	This paper studies electricity market design,	Moreira
	overcoming the need of capacity markets	Laneuville
How Long Should They Be In Office? Term	This paper studies what should be the optimal	
Limits, Reelection and Recall	term limit for, both with and without reelection	
	and recall	

#### Honors and Awards

- Research Grant Award, Tippie College of Business, 2022 to present
- B. Tippie Research Fellowship, from 2014 until the present.
- ISEN Booster Award 2013.
- First Prize, Economic Theory Best Paper Award, Brazilian Econometric Society meeting, Recife, December 2012.
- Haralambos Simeonidis Prize National Association of Economic Schools (ANPEC) to the best thesis in economics, December 2004.
- Institutional Capacitation Program Ministry of Science and Technology Research Grant 2004-2005.
- Member of Brazilian delegation to International Mathematical Olympiad (1990). Brazilian Mathematical Olympiad, 1989, 2nd place.

• Ceara's Mathematical Olympiad, 1st place in 1987, 1988, 1990.

#### Presentations

- George Mason University, October 18, 2024
- Universidade de Brasilia, Brazil, July 15, 2024
- Fecomercio, lançamento do livro em homenagem a Modesto Carvalhosa, May 22, 2024
- Getulio Vargas Foundation, EESP, São Paulo-SP, March 13, 2024.
- Universidad Carlos III de Madrid, February 12, 2024.
- University of Texas at Austin, McCombs School of Business, January 24, 2024
- 2024 SAET Conference, Santiago, Chile, January 10, 2024
- 2023 PET (Association for Public Economic Theory) conference, January 11, 2024
- Ninth Latin American Workshop in Law and Economics LAWLE 2023, Brasília, Brazil, November 16, 2023.
- Department of Economics, Iowa State University, October 27, 2023.
- Federal Reserve Bank of Chicago, July 25, 2023.
- 2023 SAET Conference, Paris, France, July 19, 2023.
- 2022 SAET Conference, Camberra, Australia, July 16, 2022.
- Interdisciplinary Symposium on Brazilian Political System, organized by IMPA and CEFOR, July 5-9, 2021.
- 41th meeting of the Brazilian Econometric Society, in São Paulo, December 2019.
- Midwest Theory Conference, St. Louis, October 2019.
- University of Rochester, October 2019.
- Time and Uncertainties and Strategies IV, Conference in Paris, December 18-19, 2018.
- PUC, Rio de Janeiro, May 2018.
- FGV, Rio de Janeiro, May 2018.
- FGV, Rio de Janeiro, January 30, 2018.
- University of Arizona, September 2017
- Second Meeting of the group "Economistas do Brasil", about Brazilian Economy,
- Asian Meeting of the Econometric Society, Hong Kong, July 2017.
- North American Meeting of the Econometric Society, St. Louis, June 2017.
- "Produtividade e a Retomada do Crescimento", first Meeting of the group
- "Economistas do Brasil", about Brazilian Economy, Insper, São Paulo, January 30-31, 2017.
- Public Economic Theory (PET) Conference, FGV, Rio de Janeiro, July, 2016.
- SAET 2016, IMPA, Rio de Janeiro, July 7, 2016.
- Getulio Vargas Foundation, Rio de Janeiro, April, 9, 2014.
- Presentation of the Final Report on CREG Resolution 051-2009, Bogota, Colombia, November 25, 2013.
- Brazilian Electricity Market: a discussion with the Brazilian Chamber of Commerce for Electricity, Getulio Vargas Foundation, October 16, 2013.

- Harvard MIT joint economic theory seminar, October 3, 2013.
- 2013 Informs Annual Meeting, Minneapolis Convention Center, Minneapolis, October 6-9, 2013.
- 3th Great Lakes Symposium on Smart Grid, Illinois Institute of Technology, Chicago, IL, September 23-25, 2013.
- Workshop: Modeling Market Dynamics and Equilibrium New Challenges, New Horizons, Hausdorff Institute of Mathematics, Bonn University, August 19-22, 2013.
- 2013 Asian Meeting of the Econometric Society (AMES2013), National University of Singapore, Singapore, August 2-4, 2013.
- 13th SAET Conference on Current Trends in Economics, MINES ParisTech, Paris, France, July 22-27, 2013.
- 2013 Economic Science Association World Meetings, Zurich, Switzerland, July 11-14, 2013.
- Mannheim Energy Conference, June 24-25, 2013.
- University of Iowa, Iowa City, IA, March 27, 2013.
- 2012 Annual meeting of the Brazilian Econometric Society, Recife, Brazil, December 2012.
- Interdisciplinary Workshop on Smart Grid Design & Implementation, Dec. 7-8, 2012, 8 Gainesville, FL
- University of Arizona, Tucson, AZ, December 3, 2012.
- 31st USAEE / IAEE North American Conference, Sheraton Austin, Texas, November 4-7, 2012.
- UECE Lisbon Meetings 2012 Game Theory and Applications, Lisbon, Portugal, October 18-20, 2012.
- Getulio Vargas Foundation, Rio de Janeiro, Brazil, October 11, 2012.
- Informs Annual Meeting, Austin, Texas, October 15-16, 2012.
- IEEE 50th Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, October 1-5, 2012.
- Guelph University, Toronto, Canada, March 2nd, 2012.
- NSF GE conference in Indiana University, September 28-29, 2012.
- 27th Annual Congress of the European Economic Association/66th European Meeting of the Econometric Society, Malaga, Spain, August 27-31, 2012.
- 4th World Congress of the Game Theory Society, Istambul, Turkey, July 22-26, 2012.
- Foundations and Applications of Utility, Risk and Decision Theory (FUR) Georgia State University, Atlanta, Georgia, USA, June 30 - July 3, 2012
- 5th Atlantic Workshop on Energy and Environmental Economics, June 25-26, 2012, in A Toxa, Galicia, Spain.
- 2012 Decentralization Conference, Caltech, March 30 April 1st, 2012.
- 10th International Industrial Organization Conference, George Mason University School of Law, Washington, DC, March 16-18, 2012.
- 2012 ASSA Meetings, Chicago, January 8, 2012.
- 2011 NBER Conference on Market Design, Boston, October 28-29, 2011.
- Department of Economics, Washington University, St. Louis, October 24, 2011.
- 2011 NBER General Equilibrium Workshop, Iowa City, October 7-9, 2011.

- IEEE 49th Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, September 28-30, 2011.
- 2011 Stony Brook Conference, Stony Brook, July, 2011.
- 2011 European General Equilibrium Workshop, Vigo, Spain, June 2011.
- 2011 CAPCP Conference on Auctions and Procurements, Penn State University, April 28- May 1, 2011.
- 2011 Decentralization Conference, Ohio State University, May, 2011.
- Informs Analytics, Marriot Hotel, Chicago, April 10-12, 2011.
- Decentralization Conference, Ohio State University, April 1 -3, 2011.
- Workshop on Equilibrium Analysis Under Ambiguity, Naples, Italy, Jan 28-29, 2011.
- Fundação Getulio Vargas, Rio-Brazil, December 14, 2010.
- INFORMS Annual meeting, Austin, Texas, November 7-9, 2010.
- Krannert Graduate School of Management, Purdue University, October 28, 2010.
- Tepper School of Business, Carnegie Mellon University, October 8, 2010.
- Third Transatlantic Conference, Trinity College, Oxford, September 14-16, 2010.
- 2010 RUD (Risk, Uncertainty and Decision) conference, Paris, June 30 July 2, 2010
- 2010 CAPCP Conference on Auctions and Procurements, Penn State University, State College, PA, April 29-May 2, 2010.
- Ohio State Universe, Columbus, Ohio, April 16, 2010.
- Universidad Complutense de Madrid, Madrid, Spain, March 23, 2010.
- Pontificia Universidade Católica do Rio de Janeiro (PUC-Rio), December 9, 2009.
- University of Pennsylvania, October 7, 2009.
- University of Maryland, October 6, 2009.
- Johns Hopkins University, October 5, 2009.
- Univ. of Minnesota, March 2009.
- GE in Rio, Rio de Janeiro, RJ, March 10-12, 2010. Midwest Economic Theory conference, Penn State, October 2009.
- Second Transatlantic Theory Workshop, Northwestern University, September 11-13, 2009.
- 2009 European Meeting of the Econometric Society, Barcelona, August 23-27, 2009.
- 9th SAET Conference on Current Trends in Economics, Ischia, Italy, June 29-July 5, 2009.
- Sorbonne Workshop in Economic Theory (SWET 2009), Paris, June 24-27, 2009.
- 2009 Cowles Summer Conference, Economic Theory, Yale University, June 22-23, 2009.
- 2009 Risk, Utility and Decision (RUD) Conference, Duke University, June 18-21, 2009.
- 7th International Industrial Organization Conference, Northeastern University, Boston, April 3-5, 2009.
- 2009 CAPCP Conference on Auctions and Procurements, Penn State University, State College, PA, March 26-29, 2009.
- Conference in Honor of Ehud Kalai's 66th birthday, Northwestern University, October 24 and 25, 2008.
- Third World Congress of the Game Theory Society, Northwestern University, July 2008.

- Transmission Business School, University of Illinois, Chicago, June 16-20, 2008.
- 2008 Cowles Summer Conference, Economic Theory: "Choice, Contracts and Computation", Yale University, June 9-10, 2008.
- 6th International Industrial Organization Conference, Marymount University, Arlington, Virginia, May 16-18, 2008.
- Spring 2008 Midwest Conference Economic Theory, joint with a conference in honor of Wayne Shafer, University of Illinois, May 2-4, 2008.
- 2008 CAPCP Conference on Auctions and Procurement, Penn State University, April 2008.
- Univ. of Iowa, April 2008.
- Univ. of Illinois at Urbana-Champaign, Feb 2008.
- American Economic Association Annual Meeting, New Orleans, January 2008.
- Conference in Honor of Roko Aliprantis, University of Kansas, November 2007.
- Indiana University, October 2007, Sept 28, 2007.
- Univ. Federal do Ceará, Jul. 2007.
- Getulio Vargas Foundation, Mar 2007.
- Univ. of Illinois at Urbana-Champaign, Mar 2007.
- Pennsylvania State University, Jan 2007.
- Mathematical Economics Workshop, IMPA, Rio de Janeiro, December 2006.
- 10 RUD Risk, Uncertainty and Decision, Paris, June 2006.
- Stony Brook Game Theory Festival, Stony Brook, July 2006.
- Universitat Pompeu Fabra, Oct 2006.
- Univ. of Illinois at Urbana-Champaign, Oct 2006.
- Washington University in St. Louis, Oct 2006.
- Washington University in St. Louis, Sep 2006.
- Universidade do Porto, Sep 2006.
- Universidad de Santiago de Compostela, Sep 2006.
- Université Paris I CERMSEM, Jun 2006.
- Universidad Carlos III de Madrid, Apr 2006.
- Universidad Nacional de Bogotá, Colombia, Aug 2005.
- World Congress of Econometric Society, London, Aug 2005.
- Colombian Mathematical Congress, Bogota, Aug 2005.
- Stony Brook Game Theory Festival, Stony Brook, July 2005.
- Universidade Federal do Ceará, Brazil, July 2005.
- Decentralization Conference, Urbana-Champaign, April 2005.
- Université Toulouse 1 Sciences Sociales GREMAQ, Dec 2004.
- Université Paris I CERMSEM, Dec 2004.

- Getulio Vargas Foundation, Rio de Janeiro, 2004.
- Latin American Meeting of Econometric Society, São Paulo, July 2004.
- Mathematical Economics Workshop, IMPA, Rio de Janeiro, July 2004.
- Pontificia Universidade Católica do Rio de Janeiro (PUC-Rio), 2003.
- IBMEC, Rio de Janeiro, 2003.

### Teaching

PhD courses: first-year PhD course in Microeconomics in Fall 2017 and 2018 and Real Analysis in the Fall 2015, 2016 and 2017. I have also taught a third-year optional course on Multi-Unit and Combinatorial Auctions in 2008 and 2009, at the University of Illinois at Urbana-Champaign. From 2019 to 2020, I taught Dynamic Economics and Mathematical Economics in IMPA. Also in IMPA, from 2003 to 2005, I taught Microeconomics, Mathematical Economics (General Equilibrium Theory), Dynamic Economics, and Introduction to Econometrics (Time Series).

Master (of Finance): International Economic Environment of the Firm in the Master in Finance of Tippie College of Business, since 2020 and Introduction to Finance in IMPA, in 2020.

Master of Business Administration (MBA): Most of my teachings is for MBA's courses. I teach Managerial Economics for online MBA, part time MBA, Executive MBA and full time MBA in Tippie College of Business, since 2014. Most of my teachings is for MBA's courses. I teach Managerial Economics for online MBA, part time MBA, Executive MBA and full time MBA in Tippie College of Business, since 2014. I have also taught to full time MBA students in Kellogg School of Management. In Fall 2008, I taught Microeconomics and from 2010-2013, I taught Competitive Strategy and Industrial Structure.

Undergraduate level: I taught Intermediate Micro at the University of Illinois at Urbana-Champaign in the Spring 2008 and 2010. I also taught Calculus and Linear Algebra, for economics students of the Universidad Carlos III de Madrid from 2005 to 2007.

Courses for professionals: I taught Economics of Electricity Markets for executives of the Camara de Comercialização de Energia Elétrica (CCEE), in Brazil in November 2022. In October 2022, I taught a course about Economic Efficiency in Spectrum for executives at Anatel, the telecommunication agency in Brazil. From 2005 to 2006, I taught four editions of a course about Credit scoring models promoted by a consultancy company, FCE.

# PhD Committees

Gino Loyola (Universidad Carlos III de Madrid), Wei He (University of Iowa), Angelo Silva (UnB), Huiyi Guo (University of Iowa), Ryan Rudderham (University of Iowa), Huizhong Liu (University of Iowa), Lance Cundy (University of Iowa), Campo Elias Suarez Villagran (IMPA), Leandro Lyra (IMPA), Renata Carvalho Villar da Silva (IMPA), David Enocksson (University of Iowa), Ruyan Rudderham (University of Iowa), Mahdi Eghbali (University of Iowa), Justin Doty (University of Iowa), Lucas Santos e Silva (Master, UnB), Levy Bravo (Master, UnB), Bruno Nunes (IMPA), Daniel Nunes (IMPA), Lucas Santos e Silva (UnB).

#### Referee Service

American Economic Review, Econometrica, Journal of Economic Theory, Theoretical Economics, Games and Economic Behavior, Economic Theory, International Economic Review, International Journal of Game Theory, Journal of Mathematical Economics, Annals of Finance, The B.E. Journal of Theoretical Economics, Journal of Economics and Management Strategy, Brazilian Review of Econometrics, European Journal of Operational Research, Mathematics of Operations Research, Journal of Human Capital, Management Science, Rand Journal of Economics.

Professional Projects (specially in Energy Markets in Brazil and Colombia)

In April and May 2023, I taught a course on the Economics of Electricity Markets to the ONS (the Brazilian System Operator).

On November 7, 2022, I gave a talk about Economic Efficiency in the Energy Sector for people working in the CCEE (Câmara de Comercialização de Energia Elétrica), which is the market clearing institution in the energy sector in Brazil.

In October 2022, I was invited by PUC-RJ (Pontificia Universidade Católica do Rio de Janeiro) for giving a short course about Economic Efficiency in the Use of Radio Spectrum, for Anatel, the Brazilian Agency for Telecommunications.

During the academic semester March-June 2020, I was part of a team in IMPA that developed a Machine Learning project for Stone, a Brazilian fintech. I worked with other professors and students to improve the prediction of credit default.

In January 2019, I was hired as economic advisor to the president of Petrobras. I made suggestions for the design of the gas market in Brazil. In November and December 2018, I was part of the transition team to the new government of Brazil, elected in October.

In 2018, I concluded a R&D project with Getulio Vargas Foundation (FGV) about the business model of thermal units in Brazil (start: August 2016). I also work in another research project with FGV and Brazilian Electricity Wholesale Market (CCEE).

In 2017-2018, I worked as a consultant for the World Bank and the Colombian and Panama governments, to evaluate the economic viability of building an electricity transmission line between the two countries.

In 2016, I was invited by the Colombian regulatory agency for energy (CREG) as one of the members of a panel of three international experts, to evaluate changes in the rules of the electricity market in Colombia that CREG is considering to implement. Our task was to write a comprehensive report about the pros and cons of the proposed changes, and debate our views in a three days panel with the Colombian electricity industry, that happened in October 5-7, 2016 in Bogotá.

In October-November 2014, I wrote a paper report submitted to the Brazilian Electricity Regulatory Agency (Aneel), about proposed changes in the rules for the formation of the price of liquidation of differences in the Brazilian market. This research was supported by Tractebel, an electricity company subsidiary of Duke Energy in Brazil.

I was one of the keynote speakers of the Smart Grid Interoperability Panel (SGIP) 2014 Annual Conference, in Nashville, Tennessee on September 15-18, 2014.

In the second half of 2013, I prepared a report about the Colombian Electricity market for the Colombian Regulatory Comission for Energy and Gas (CREG), analyzing the impact of change from decentralized to centralized unit commitment in Colombia. I did this project with Alvaro Riascos (Universidad de los Andes) and Shmuel Oren (University of California at Bekerley). We found out that a resolution by CREG has increased the economic efficiency, but generators were able to capture most of the gains, due to an increase in market power. This report was later converted in an academic paper, which has been published in the Energy Journal.

Previously, I consulted for Getulio Vargas Foundation, in Brazil, in consulting projects to the Brazilian government, helping to design auctions for electricity contracts and airports. This includes some consultancy for the airport auctions and the first auction of electricity contracts in 2005.

Date 2025-02-20	Publisher Red, White &	Type/link Article	Title Article by Representative John H. Wills, Speaker
2020 02 20	News	11101010	Pro-Tempore, titled "Update from the State House."
2025-02-18	The Gazette	News article	News article titled "University of Iowa professor, citing Democratic bias on campus, advocates new 'School of Intellectual Freedom'.'"
2025-02-12	Iowa Capital	News	News article titled "Professor: School of intellectual
	Dispatch	article	freedom could 'make universities great again.'"
2025-02-11	The Gazette	Op-ed	Opinion article supporting the creation of a new school
		article	at the University of Iowa, which was proposed by Iowa's legislators.
2024-09-26	Poder 360	News	News article by Poder360 about Public Letter
		article	"Against Censorship and Its Academic Supporters" (see it in Portuguese here).
2024-09-25	Estadão	News	News article by Estadão about Public Letter "Against
		article	Censorship and Its Academic Supporters" (see it in
			Portuguese here).
2024-09-25	Gazeta do Povo	Article	Article by Rodrigo Constantino about Public Letter
			"Against Censorship and Its Academic Supporters"
			(see it in Portuguese here).
2024-09-24	Substack	By Brian	Article by Brian Caplan reproduces the Public Letter
		Caplan	"Against Censorship and Its Academic Supporters"
			(see it in Portuguese here).
2024-09-05	Interview with	Interview	Interview with Chris Rufo: "What is happening in
	Chris Rufo (in	(in English)	Brazil? Its political situation." This is a translation
	Substack)		to Portuguese.
2024-04-17	Revista Exame	Article	Artigo Exame: "Musk vs. Moraes: O Certo e o
			Estratégico"
2024-04-16	Folha de S. Paulo	Article	Artigo publicado na FSP: "Musk vs. Moraes: O Certo e o Estratégico"
2023-01-28	TV Cultura	Online	Estudo diz que Brasil gasta 528 vezes a renda média
			com congressistas
2022-05-11	Último Segundo	Online	Estudo diz que Brasil é o país que mais gasta em
			eleições e políticos
2022 - 03 - 27	O Estado de S.	Newspaper	Cada parlamentar brasileiro custa US\$ 5 milhões por
	Paulo	Headline	ano

Date	Publisher	Type/link	Title
2022-05-19	Arapuã	Online	Brasil é o $1^{\circ}$ país no ranking de gasto público com
			eleições e partidos
2022 - 03 - 27	A Cidade On	Online	Cada parlamentar brasileiro custa US\$ 5 milhões por
			ano
2021-07-20	Demais News FM	Online	Brasil é o país que mais gasta dinheiro no mundo com
	D D. D0		parlamentares, partidos e eleições
2021-07-16	Bom Dia ES	$\mathrm{TV}$	Cada Parlamentar custa 528 vezes mais que o
2022 02 25		27	trabalhador brasileiro, diz pesquisa
2022-03-27	O Estado de S.	Newspaper	Cada parlamentar brasileiro custa US\$ 5 milhões por
2021 07 12	Paulo	Headline	ano
2021-07-12	Rádio BandNews	Radio	Custo absurdo põe Congresso brasileiro entre os mais caros, diz IMPA
2021-07-11	O Globo	Editorial	Custo absurdo põe Congresso brasileiro entre os mais
		(printed)	caros
2021-07-11	O Globo	Editorial	Custo absurdo põe Congresso brasileiro entre os mais
		(online)	caros
2021-07-10	Jornal da Cultura	$\mathrm{TV}$	Pesquisa revela custo do legislativo
2021-07-10	Jornal do	Online	Plebiscito bianual para presidência da República é
	Commercio		defendido em simpósio da Câmara dos Deputados
2021-07-09	Conjur	Online	Estudo sugere mandato presidencial de 8 anos com
			plebiscito bianual de destituição
2021-07-09	Folha de	Newspaper	Orçamento por parlamentar é 528 vezes maior que a
2021 07 00	Alphaville	0.11	renda
2021-07-09	Conjur	Online	Estudo sugere mandato presidencial de 8 anos com
2021-07-09	Blog do Mário	Online	plebiscito bianual de destituição Estudo defende 8 anos de mandato para presidente e
2021-07-09	Flávio	Omme	avaliação da gestão pelo povo a cada dois anos
	riavio		avanação da gestão pero povo a cada dois anos
2021-07-07	Jornal do	Newspaper	Cada parlamentar custa mais de 500 vezes a renda
	Commercio	remspaper	média de um brasileiro; por que isso acontece?
2021-07-07	A Gazeta	Newspaper	Parlamentar do Brasil custa 528 vezes mais que a
		1 1	renda média da população
2021-07-07	Municípios Em	Online	Congresso custa R\$ 30,8 milhões por dia de
	Revista		funcionamento
2021-07-07	Rota 2014 - Blog	Online	Estudo revela que 1 dia de funcionamento do
	do José Tomaz		Congresso Nacional custa R\$ 30,8 milhões ao bolso
			do pagador de impostos
2021-07-06	O Globo	Newspaper	Brasil tem a maior despesa por parlamentar, diz
		(p. 06)	estudo
2021-07-06	TV Record	$\mathrm{TV}$	Estudo revela que cada parlamentar brasileiro custa
			mais de R\$ 20 milhões por ano aos cofres públicos
2021-07-06	Blog do Abel	Online	Gasto por parlamentar no Brasil é 528 vezes maior que
	Carvalho		a renda média da população, diz estudo

Date	Publisher	Type/link	Title
2021-07-05	O Globo	Newspaper (online)	Gasto por parlamentar no Brasil é 528 vezes maior que a renda média da população, diz estudo
2021-07-05	BandNews TV	TV	Brasil é o país com maior gasto por parlamentar no mundo
2021-07-05	Jornal da Cultura	$\mathrm{TV}$	Parlamentar custa 528 vezes a renda média no país
2021-07-05	Farol da Bahia	Newspaper	Gasto parlamentar é 528 maior que a renda média da
2021 01 00	raioi da Baina	(online)	população, diz estudo
2021-07-05	Leia Já	Online	Gasto parlamentar é 528 maior que renda média, diz estudo
2021-07-05	Ação Popular	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	É Bahia News	Newspaper	Estudo revela que 1 dia de funcionamento no Congresso custa R\$ 30,8 milhões
2021-07-05	TV NBN	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Notícias no ar	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	É Bahia News	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Blog John Cutrim	Online	Gasto por parlamentar no Brasil é 528 vezes maior que a renda média da população, diz estudo
2021-07-05	O Sollo	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Bahia Econômica	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Notícias da Lapa	Online	Gasto por parlamentar é 528 vezes maior que a renda média da população, revela estudo
2021-07-05	Andaia FM	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Valter Vieira	Online	Estudo revela que gasto por parlamentar é 528 vezes maior que renda média da população
2021-07-05	Jornal Pequeno	Online	Gasto por parlamentar no Brasil é 528 vezes maior que a renda média da população, diz estudo

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