

JUAN PABLO TORRES-MARTÍNEZ

Department of Economics, Faculty of Economics and Business, University of Chile
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Juan Pablo Torres-Martínez is a Full Professor at the University of Chile. His research in economic theory focuses on mechanism design in matching markets and general equilibrium in financial markets. His works have been published in journals such as *Econometrica*, *Economic Theory*, *Journal of Mathematical Economics*, and *International Journal of Game Theory*.

At the University of Chile, he served as Director of Research for the Faculty of Economics and Business and was Academic Director of the Ph.D. and the M.A. programs in Economics. Between 2002 and 2008, he was a faculty member at the Department of Economics of the Pontifical Catholic University of Rio de Janeiro. A mathematician by education, he holds a Ph.D. in Science from IMPA, Brazil.

CURRENT ACADEMIC POSITION

Full Professor, Department of Economics, University of Chile

Since 05/2011

EDUCATION

Ph.D. in Science, IMPA, Brazil

03/2002

Dissertation title: "Infinite horizon incomplete markets: equilibrium, default and bubbles"

Supervised by Aloisio Araujo (primary advisor) and Mário R. Páscoa

M.Sc. in Mathematical Economics, IMPA, Brazil

08/1998

B.Sc. in Mathematics, University of Chile

06/1996

RESEARCH INTERESTS

Mechanism Design, Matching Theory, General Equilibrium Theory

PUBLICATIONS IN ACADEMIC JOURNALS

CONTRERAS, J.L., AND J.P. TORRES-MARTÍNEZ (2021): "The roommate problem with externalities," *International Journal of Game Theory*, volume 50, pages 149-165.

BRAITT, M., AND J.P. TORRES-MARTÍNEZ (2021): "Matching with externalities: the role of prudence and social connectedness in stability," *Journal of Mathematical Economics*, volume 92, pages 95-102.

MORENO-GARCÍA, E., AND J.P. TORRES-MARTÍNEZ (2020): "Information within coalitions: risk and ambiguity," *Economic Theory*, volume 69, pages 125-147.

IRAOLA, M.A., F. SEPÚLVEDA, AND J.P. TORRES-MARTÍNEZ (2019): "Financial segmentation and collateralized debt in infinite-horizon economies," *Journal of Mathematical Economics*, volume 80, pages 56-69.

FAIAS, M., AND J.P. TORRES-MARTÍNEZ (2017): "Credit market segmentation, essentiality of commodities, and supermodularity," *Journal of Mathematical Economics*, volume 70, pages 115-122.

CEA-ECHENIQUE, S., C. HERVÉS-BELOSÓ, AND J.P. TORRES-MARTÍNEZ (2017): "Endogenous differential information," *Economic Theory*, volume 63, pages 51-72. *Special Issue in honor of Bernard Cornet*.

CEA-ECHENIQUE, S., AND J.P. TORRES-MARTÍNEZ (2016): "Credit segmentation in general equilibrium," *Journal of Mathematical Economics*, volume 62, pages 19-27.

CORREA, S., AND J.P. TORRES-MARTÍNEZ (2014): "Essential equilibria of large generalized games," *Economic Theory*, volume 57, pages 479-513.

IRAOLA, M.A., AND J.P. TORRES-MARTÍNEZ (2014): "Equilibrium in collateralized asset markets: credit contractions and negative equity loans," *Journal of Mathematical Economics*, volume 55, pages 113-122.

POBLETE-CAZENAVE, R., AND J.P. TORRES-MARTÍNEZ (2013): "Equilibrium with limited-recourse collateralized loans," *Economic Theory*, volume 53, pages 181-211.

- ARAUJO, A., M.R. PÁSCOA AND J.P. TORRES-MARTÍNEZ (2011): “Long-lived collateralized assets and bubbles,” *Journal of Mathematical Economics*, volume 47, pages 260-271. *Special Issue in honor of Andreu Mas-Colell*.
- PÁSCOA, M.R., M. PETRASSI AND J.P. TORRES-MARTÍNEZ (2011): “Fiat money and the value of binding portfolio constraints,” *Economic Theory*, volume 46, pages 189-209.
- SEGHIR, A., AND J.P. TORRES-MARTÍNEZ (2011): “On equilibrium existence with endogenous restricted financial participation,” *Journal of Mathematical Economics*, volume 47, pages 37-42.
- FERREIRA, T.R.T., AND J.P. TORRES-MARTÍNEZ (2010): “The impossibility of effective enforcement mechanisms in collateralized credit markets,” *Journal of Mathematical Economics*, volume 46, pages 332-342.
- FUGAROLAS-ALVAREZ-UDE, G., C. HERVÉS-BELOSÓ, E. MORENO-GARCÍA, AND J.P. TORRES-MARTÍNEZ (2009): “A market game approach to differential information economies,” *Economic Theory*, volume 38, pages 321-330. *Symposium on Equilibria with Asymmetric Information*.
- PETRASSI, M., AND J.P. TORRES-MARTÍNEZ (2008): “Collateralized assets and asymmetric information,” *Journal of Mathematical Economics*, volume 44, pages 530-534.
- SEGHIR, A., AND J.P. TORRES-MARTÍNEZ (2008): “Wealth transfers and the role of collateral when lifetimes are uncertain,” *Economic Theory*, volume 36, pages 471-502.
- STEINERT, M., AND J.P. TORRES-MARTÍNEZ (2007): “General equilibrium in CLO markets,” *Journal of Mathematical Economics*, volume 43, pages 709-734.
- ARAUJO, A., M.R. PÁSCOA, AND J.P. TORRES-MARTÍNEZ (2002): “Collateral avoids Ponzi schemes in incomplete markets,” *Econometrica*, volume 70, pages 1613-1638.

WORKING PAPERS

- [The strong effects of weak externalities on school choice](#), with Eduardo Duque (2022).
- [Incentives in three-sided markets](#), with Jorge Arenas (2022).
- [Coalitional stability in matching problems with externalities and random preferences](#), with Adriana Piazza (2021).

OTHER ACADEMIC OR PROFESSIONAL POSITIONS

- At the University of Chile:
- | | |
|---|---------------|
| Member of the Institutional Self Evaluation Committee | Since 05/2022 |
|---|---------------|
- At the Faculty of Economics and Business of the University of Chile:
- | | |
|---|-----------------|
| Alternate Member of the Academic Assessment Committee | Since 12/2021 |
| Member of the Academic Qualification Committee (Qualification period 2019-2020) | 2022 |
| Member of the Faculty Appeals Committee (Qualification period 2017-2018) | 2020 |
| Academic Member of the Faculty Council (elected by peers) | 09/2018–08/2020 |
| Director of Research | 03/2019–06/2020 |
| Member of the Faculty Appeals Committee (Qualification period 2015-2016) | 2018 |
| Secretary of the Academic Assessment Committee | 06/2013–05/2018 |
| Member of the Academic Assessment Committee | 05/2012–05/2018 |
| Academic Member of the Faculty Council (elected by peers) | 09/2010–08/2012 |
- At the Department of Economics of the University of Chile:
- | | |
|--|-----------------|
| Member of the Department Council (elected by peers) | 10/2019–09/2021 |
| Academic Director, Ph.D. Program in Economics | 01/2015–08/2016 |
| Academic Director, M.A. Program in Economics | 01/2015–08/2016 |
| Member of the Department Council (nominated by the Department Chair) | 03/2012–12/2013 |
| Academic Director, Ph.D. Program in Economics | 04/2009–12/2011 |
| Academic Director, M.A. Program in Economics | 04/2009–12/2011 |
| Associate Professor | 05/2008–04/2011 |
- Member of the Area Committee on Economics and Administrative Sciences, CNA-Chile
- | | |
|--|-----------------|
| Evaluator of the Ph.D. in Finance at Adolfo Ibañez University on behalf of CNA-Chile | 10/2017–12/2019 |
| | 09/2016 |
- Deputy Director, Study Group of Economic and Business, Fondecyt, Chile
- | | |
|---|-----------------|
| Member of the Study Group of Economic and Business, Fondecyt, Chile | 06/2015–05/2016 |
| | 06/2013–05/2016 |
- Tenured Assistant Professor of Economics, Pontifical Catholic University of Rio de Janeiro
- | | |
|--|-----------------|
| Researcher CNPq, Brazil (Brazilian research council) | 07/2004–04/2008 |
| | 03/2003–04/2008 |
- Assistant Professor of Economics, Pontifical Catholic University of Rio de Janeiro
- | | |
|--|-----------------|
| Visiting Assistant Professor, IMPA, Brazil | 03/2002–07/2004 |
| | 03/2002–12/2002 |
- Mathematical Analyst, LeMans Seguros, Chile
- | | |
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| | 07/1996–09/1996 |
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RESEARCH GRANTS

| | |
|---|-----------------|
| <i>Preservation of natural resources and political turnover: a game theory approach</i> FONDECYT research grant 1180409, Chilean Government (Co-Investigator) Principal Investigator: Adriana Piazza Chifflet | 04/2018–03/2022 |
| <i>Ambigüedad y riesgo de crédito en mercados incompletos</i> FONDECYT research grant 1150207, Chilean Government (Principal Investigator) | 04/2015–03/2018 |
| <i>Restricciones a la participación financiera en mercados incompletos</i> FONDECYT research grant 1120294, Chilean Government (Principal Investigator) | 04/2012–03/2015 |
| <i>Mecanismos de recuperación de crédito: un análisis teórico</i> FONDECYT research grant 1090206, Chilean Government (Principal Investigator) | 04/2009–03/2012 |
| <i>Default enforcement mechanisms in addition to collateral repossession</i> CNPq Research Productivity Grant 309226/2007-4, Brazilian Government | 03/2008–04/2008 |
| <i>Gerações superpostas, default e informação assimétrica</i> CNPq Research Productivity Grant 307554/2004-0, Brazilian Government | 03/2005–02/2008 |
| <i>Equilíbrio, risco de crédito e especulação em mercados sequenciais</i> CNPq Research Productivity Grant 305109/2002-2, Brazilian Government | 03/2003–02/2005 |

AWARDS, FELLOWSHIPS AND SCHOLARSHIPS

| | |
|---|--|
| Best Undergraduate Teacher Award, University of Chile | 2016 |
| At the Faculty of Economics and Business of the University of Chile: | |
| Best Teaching Award (Economics), Undergraduate School of Economics and Business | 2015 |
| Best Teaching Award (Economics), Graduate School of Economics and Business | 2012, 2015, 2017 |
| Best Teaching Award, Ph.D. Program in Economics | 2019 |
| Best Teaching Award, M.A. Program in Economics | 2010, 2012, 2015-I, 2015-II, 2016-I, 2021-II |
| At the Department of Economics of the University of Chile: | |
| Graduate Teaching Award (core courses) | 2016, 2017 |
| Graduate Teaching Award (elective courses) | 2016, 2017 |
| Graduate Teaching Award | 2009, 2010, 2012, 2015 |
| Coimbra Group Scholarship to visit the University of Salamanca | 2013 |
| First place, Fondecyt National Research Funding Competition in Economics and Business | 2012 |
| Summer postdoctoral fellowship, IMPA, Brazil | 2009 |
| Visiting research grant, University of Salamanca, Spain | 2006, 2007 |
| Visiting research grant, Xunta de Galicia - University of Vigo, Spain | 2005 |
| Haralambos Simeonidis Prize, ANPEC, Brazil (Brazilian National Award for Best Ph.D. Dissertation in Economics) | 2002 |
| Ph.D. fellowship, CNPq, Brazilian Government | 1998–2002 |
| M.Sc. fellowship, CNPq, Brazilian Government | 1997–1998 |
| B.Sc. scholarship, University of Chile | 1993–1996 |
| Bronze Medal, National Mathematical Olympiad, Chile | 1992 |

FORMER GRADUATE STUDENTS

PH.D. IN ECONOMICS

At University of Chile: Haydée Fonseca Mairena (2019; co-advised with Matteo Triossi); José Luis Contreras Biekert (2014); Sebastián Cea-Echenique (2014). At Pontifical Catholic University of Rio de Janeiro: Myrian Petrassi (2008).

M.SC. IN MATHEMATICS AND APPLICATIONS

Carolina Gaspar Crespo (NOVA University of Lisbon, 2021; co-advised with Marta Faias).

M.A. IN ECONOMICS

At University of Chile: Emilio Guamán Maldonado (2022); Eduardo Duque Rosas (2022); Jorge Arenas Molina (2022); Daniel Jaar Michea (2018); Diego Dabed Sitnisky (2017); Fabián Sepúlveda Cortés (2013); Sofía Correa Deisler (2012); Carlos Salazar Rivera (2011); Mario Giarda Ugalde (2011); Víctor Pérez Fernández (2011); Sergio Daga Mérida (2010); Sebastián Cea Echenique (2010); Rubén Poblete Cazenave (2010). At Pontifical Catholic University of Rio de Janeiro: Thiago Teixeira Ferreira (2007); João Bumachar Resende (2006); Mariano Steinert (2005); Renata Heinemann (2004; co-advised with Eduardo Loyo); Daniel Chrity (2004).

TEACHING EXPERIENCE

UNDERGRADUATE COURSES

At University of Chile: Linear algebra (2012, 2021-2022); Mathematical methods in economics (2010-2015, 2021-2022); Advanced mathematics (2014, 2016-2020); Consumer theory and general equilibrium (2008). At Pontifical Catholic University of Rio de Janeiro: Market structures and general equilibrium (2002-2004, 2007).

GRADUATE COURSES

At University of Chile: Real analysis and nonlinear optimization (2022); Advanced microeconomic theory (general equilibrium theory, social choice, mechanism design) (2013-2022); Market design (2021, 2022); Microeconomic theory (consumer and producer theory, game theory) (2017); Dynamical systems and applications (2017); Game theory (2016); Mathematical economics (2016); Mathematical finance (2013); Consumer and producer theory (2012-2013); General equilibrium and market failures (2008-2010, 2012); General equilibrium theory (2011); Auction theory (2010); Methods in dynamic economics (2009-2010); Measure theory (2010); Mathematical economics and continuous time finance (2009). At Pontifical Catholic University of Rio de Janeiro: Mathematical methods in economics (2002-2008); Methods in dynamic economics (2005-2006); Continuous time finance (2003-2005); Game theory (2002-2004). At IMPA, Brazil: Mathematical economics and finance (2002); Advanced mathematical economics (2002).

SHORT COURSES

Introduction to matching theory (Universidad del Pacífico, Perú, 2022; Universidad de los Andes, Chile, 2022; University of Salamanca, Spain, 2015); Introduction to general equilibrium theory with incomplete financial markets (Pontifical Catholic University of Valparaíso, 2018); Introduction to dynamic economics (IMCA, Perú, 2014); Topics in mathematical economics (IMCA, Perú, 2012); Real analysis and optimization for economists (International Summer School, Faculty of Economics, Universidad de los Andes, Colombia, 2011); Infinite horizon incomplete markets (IMPA, Brazil, 2009; University of Salamanca, Spain, 2005); Mathematical methods in economics (University of Chile, 2006).

OTHER PUBLICATIONS

ARENAS, J., AND J.P. TORRES-MARTÍNEZ (2023): “Reconsidering the existence of stable solutions in three-sided matching problems with mixed preferences,” *Journal of Combinatorial Optimization*, volume 45, article 62.

CEA-ECHENIQUE, S., AND J.P. TORRES-MARTÍNEZ (2018): “General equilibrium with endogenous trading constraints,” *PLoS ONE*, volume 13, article number: e0203814, DOI: 10.1371/journal.pone.0203814

MORENO-GARCÍA, E., AND J.P. TORRES-MARTÍNEZ (2012): “Equilibrium existence in infinite horizon economies,” *Portuguese Economic Journal*, volume 11, pages 127-145.

TORRES-MARTÍNEZ, J.P. (2012): “*Elementos de Economía Matemática*,” Monografías del IMCA (Monographs of the Institute of Mathematics and Related Sciences), Editorial Hozlo S.L.R., Lima, Perú. ISBN: 978-9972-242-45-8.

TORRES-MARTÍNEZ, J.P. (2006): “Fixed points as Nash equilibria,” *Fixed Point Theory and Applications*, volume 2006, article ID 36135, DOI: 10.1155/FPTA/2006/36135

OTHER ACADEMIC OR PROFESSIONAL ACTIVITIES

UNIVERSITY COMMITTEES AND SERVICE

At the Faculty of Economics and Business of the University of Chile:

| | |
|---|-----------------|
| Member of the Self Evaluation Committee | 05/2019–06/2020 |
| Member of the Faculty Search Committee | 08/2012–05/2015 |
| Member of the Graduate School Council | 11/2010–12/2011 |

At the Department of Economics of the University of Chile:

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|---|------------------|
| Junior Recruiting Committee | 2019, 2022, 2023 |
| Member of the Academic Committee of the M.A. in Economic Analysis | 01/2015–08/2016 |
| Member of the Academic Committee of the M.A. in Public Policies | 01/2015–08/2016 |
| Member of the Academic Committee of the M.A. in Economic Analysis | 08/2011–12/2011 |
| Member of the Academic Committee of the M.A. in Public Policies | 04/2011–12/2011 |

SCIENTIFIC COMMITTEES

Workshop on General Equilibrium: Theory and Applications, Brazil, 2019; 16th SAET Conference on Current Trends in Economics (session organizer); 16th International Meeting of the Association of Public Economic Theory, 2016; 2014 Latin American Meeting of the Econometric Society; XIII Latin-American Workshop in Economic Theory, Colombia, 2012; 2008 Latin American Meeting of the Econometric Society; Workshop in Economic Theory PUC-Rio, Brazil, 2008; XXIX Encontro Brasileiro de Econometria, Brazil, 2007; Workshop on Mathematical Economics (in honor of Aloisio Araujo on his 60th birthday), Brazil, 2006; XXV Encontro Brasileiro de Econometria, Brazil, 2003; Encontro Nacional ANPEC, Brazil, 2003.

DISSERTATION/THESIS COMMITTEE MEMBER

Pilar Lorenzo (Ph.D. in Mathematics, Federico Santa María Technical University, 2022); Diego Fica (M.A. in Economics, University of Chile, 2019); Mohit Karnani (M.A. in Economics, University of Chile, 2018); Daniel Vargas (M.A. in Economics, University of Chile, 2016); Loreto Ayala (M.A. in Economics, University of Chile, 2012); Rodrigo Raad (Ph.D. in Economics, EPGE/FGV, Brazil, 2011); Maikol Cerda Zavalla (M.A. in Economics, University of Chile, 2010); Rodrigo Novinski (Ph.D. in Science, IMPA, 2007); Jose Heleno Faro (Ph.D. in Science, IMPA, 2006); Rogerio Oliveira (Ph.D. in Economics, PUC-Rio, 2002); Renato Dias Gomes (M.A. in Economics, PUC-Rio, 2005).

REFEREEING ACTIVITY

Referee for: Annals of Finance, Applied Mathematics-A Journal of Chinese Universities, Brazilian Journal of Economics, Brazilian Review of Econometrics, Computational Economics, Decisions in Economics and Finance, Economic Theory, Economic Theory Bulletin, Economics Bulletin, Estudios de Economía, Fixed Point Theory and Applications, Fuzzy Sets and Systems, Journal of Economic Dynamics and Control, Journal of Economic Theory, Journal of Optimization Theory and Applications, Journal of Mathematical Economics, Revista Brasileira de Economia de Empresas, Revista Colombiana de Matemáticas, Theoretical Economics.

Grant reviewer for: CNPq-Brazil, Fondecyt-Chile, UCSC-Chile.

Reviewer for: Mathematical Reviews (MathSciNet).

ACADEMIC VISITS

Department of Economics and Economic History, University of Salamanca, Spain (2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2007, 2006, 2005, 2004); New University of Lisbon, Portugal (2018, 2017, 2016, 2015); Faculty of Economics, Military University Nueva Granada, Colombia (2014); School of Business Administration, University of Miami, United States (2012); Faculty of Economics, Universidad de los Andes, Colombia (2012, 2011, 2010); Faculty of Economics, New University of Lisbon, Portugal (2011, 2005, 2004, 2003, 2002, 2001); Center for Economic Research, ITAM, México (2011, 2010, 2009); IMPA, Brazil (2009); Faculty of Economic and Business, University of Vigo, Spain (2007, 2004).

INVITED SEMINARS

IMCA, Perú (2022); Universidad de los Andes, Chile (2022); Catholic University of Maule, Chile (2022); Quantil S.A.S., Colombia (2022); Pontifical Catholic University of Valparaíso, Chile (2020); Diego Portales University, Chile (2020); New University of Lisbon, Portugal (2020); Málaga University, Spain (2020); Universidad de Talca, Chile (2018); Universidad Nacional de San Martín, Argentina (2017); University of Salamanca, Spain (2016); Universidad del Pacífico, Perú (2014); Military University Nueva Granada, Colombia (2014); University of Salamanca, Spain (2013); Vigo University, Spain (2013); Pontifical Catholic University of Chile (2012, 2011); Universidad de los Andes, Colombia (2010); University of Santiago, Chile (2010, 2009); Universidad Adolfo Ibañez, Chile (2009); Central Bank of Chile (2009); IMPA, Brazil (2009); ITAM, México (2009); Pontifical Catholic University of Chile (2009); CEA-University of Chile (2008); XXIII Jornadas Anuales de Economía, Central Bank of Uruguay (invited paper, 2008); Colóquio Brasileiro de Matemática (2007); University of Chile (2007); Primeira Semana da Matemática Aplicada, UFRJ, Brazil (2006); University of Salamanca, Spain (2006); Vigo University, Spain (2004, 2003); Colóquio Brasileiro de Matemática (2003); São Paulo University, Brazil (2002); Getúlio Vargas Foundation, Rio de Janeiro, Brazil (2002); Federal University of Rio de Janeiro, Brazil (2002).

CONFERENCES (*papers presented by a co-author or by myself*)

Encuentro de la Sociedad de Economía de Chile - SECHI (2022, 2019, 2018, 2016, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007); SAET Conference on Current Trends in Economics (16th, 15th, 13th, VIII, VII, VI and V); UECE Lisbon Meeting (2016, 2013, 2011); European Workshop on General Equilibrium Theory (2016, 2014, 2013, 2006, 2004, 2002); 16th International Meeting of the Association of Public Economic Theory, 2016; Manchester Economic Theory Workshop, 2016; 11th World Congress of the Econometric Society, Montreal, 2015; Latin American Meeting of the Econometric Society (2014, 2012, 2008); IWGTS-2014; GEdays in York (2013); XIII Latin American Workshop in Economic Theory, Colombia, 2012; Second General Equilibrium Workshop in Rio de Janeiro, Brazil; Encontros Brasileiros de Econometria (XXIX, XXVII, XXVI, XXV); Taipei Workshop on Game Theory and Economic Theory, China; NBER Debreu Memorial Conference, U.C.Berkeley; SAET Conference in Honor to R. Aliprantis, Purdue University; XI Encontro de Novos Investigadores de Análise Econômica, Spain.

ADDITIONAL INFORMATION

Nationality: Chilean (Born on December, 1974).

Languages: Spanish, Portuguese, English.

Last updated: February, 2023