# JUAN PABLO TORRES-MARTÍNEZ

Department of Economics, Faculty of Economics and Business, University of Chile Diagonal Paraguay 257, Santiago, Chile. Phone: (+56 2) 2978-3455. E-mail: juan.torres@fen.uchile.cl – ORCID Profile



Juan Pablo Torres-Martínez is a Full Professor at the University of Chile. A mathematician by education, his research interests focus on economic theory, especially on topics of mechanism design, matching markets, and general equilibrium theory. His articles have been published in academic journals such as *Econometrica, Economic Theory, Games and Economic Behavior*, and *Journal of Mathematical Economics*.

At the University of Chile, he was Director of Research for the Faculty of Economics and Business and served as Academic Director of the Ph.D. and the M.A. programs in Economics. Previously, he was a faculty member at the Department of Economics of the Pontifical Catholic University of Rio de Janeiro, 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 Markets, General Equilibrium Theory

# PUBLICATIONS IN ACADEMIC JOURNALS

SIRGUIADO, C.J., AND J.P. TORRES-MARTÍNEZ (2024): "Strategic behavior in one-to-one matching markets without outside options," *Games and Economic Behavior*, volume 148, pages 385-397.

PIAZZA, A., AND J.P. TORRES-MARTÍNEZ (2024): "Coalitional stability in matching problems with externalities and random preferences," *Games and Economic Behavior*, volume 143, pages 321-339.

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.

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

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., 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-BELOSO, 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

Local non-bossiness, with Eduardo Duque and Juan S. Pereyra.

On incentives in three-sided markets, with Jorge Arenas.

The strong effects of weak externalities on school choice, with Eduardo Duque.

On housing markets with indecisive agents, with Emilio Guamán.

## 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:		·
Member of the Academic Assessment Committee		Since 12/2024
Alternate Member of the Academic Assessment Committee		12/2021 - 11/2024
Alternate Member of the Academic Qualification Committee (Qualification	period 2021-2022)	2023
Alternate Member of the Academic Qualification Committee (Qualification	period 2019-2020)	2022
Director of Research		03/2019 - 06/2020
Academic Member of the Faculty Council (elected by peers)	09/2010-08/2012;	09/2018 - 08/2020
Member of the Faculty Appeals Committee (Qualification period 2017-2018)	)	2020
Member of the Faculty Appeals Committee (Qualification period 2015-2016)	)	2018
Member of the Academic Assessment Committee (Academic Secretary since	= 06/2013)	05/2012 - 04/2018
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	04/2009-12/2011;	01/2015 - 08/2016
Member of the Department Council (nominated by the Department Chair)		03/2012 - 12/2013
Associate Professor		05/2008-04/2011
Member of the Area Committee on Economics and Administrative Sciences, CN		10/2017 - 12/2019
Evaluator of the Ph.D. in Finance at Adolfo Ibañez University on behalf of CN.	A-Chile	09/2016
Deputy Director, Study Group of Economic and Business, Fondecyt, Chile		06/2015 - 05/2016
Member of the Study Group of Economic and Business, Fondecyt, Chile		06/2013 - 05/2016
Tenured Assistant Professor of Economics, Pontifical Catholic University of Rio	de Janeiro	07/2004 - 04/2008
Researcher CNPq, Brazil (Brazilian research council)		03/2003 - 04/2008
Assistant Professor of Economics, Pontifical Catholic University of Rio de Janei	ro	03/2002-07/2004
Visiting Assistant Professor, IMPA, Brazil		03/2002 - 12/2002
Mathematical Analyst, LeMans Seguros, Chile		07/1996-09/1996

#### RESEARCH GRANTS

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

#### AWARDS, FELLOWSHIPS AND SCHOLARSHIPS

Best Undergraduate Teacher Award, University of Chile At the Faculty of Economics and Business of the University of Chile:	2016
Best Teaching Award (Economics), Undergraduate School of Economics and Business	2015
Best Teaching Award (Economics), Graduate School of Economics and Business	2012, 2015, 2017, 2023
Best Teaching Award, Ph.D. and M.A. Programs in Economics	2023, 2024
Best Teaching Award, Ph.D. Program in Economics	2019
	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	2002
(Brazilian National Award for Best Ph.D. Dissertation in Economics)	
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 the University of Chile: María Haydée Fonseca Mairena (2019; co-advised with Matteo Triossi); José Luis Contreras Biekert (2014); Sebastián Cea-Echenique (2014). At the Pontifical Catholic University of Rio de Janeiro: Myrian Petrassi (2008).

M.A. IN ECONOMICS

At the University of Chile: Ljubo Franetovic Ortega (2024); Camilo Jaramillo Sirguiado (2024); 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 the 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).

## M.SC. IN MATHEMATICS AND APPLICATIONS

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

## TEACHING EXPERIENCE

#### UNDERGRADUATE COURSES

At the University of Chile: Linear algebra (2012, 2021-2024); Mathematical methods in economics (2010-2015, 2021-2022, 2024); Advanced mathematics (2014, 2016-2020); Consumer theory and general equilibrium (2008). At the Pontifical Catholic University of Rio de Janeiro: Market structures and general equilibrium (2002-2004, 2007).

#### GRADUATE COURSES

At the University of Chile: Advanced microeconomic theory (general equilibrium theory, social choice, mechanism design) (2013-2024); Market design (2021-2023); Real analysis and nonlinear optimization (2022-2023); Microeconomic theory (consumer and producer theory, game theory) (2017); Dynamical systems and applications (2017); Game theory (2016); Mathematical economics (2016); Mathematical finance (2013); Microeconomic Theory (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 the 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 (Faculty of Sciences, University of Chile, 2024; 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: 60.

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 University of Chile:		
Member of the Internal Quality Assurance Committee (Accreditation Proc	$cess \ 2025)$	2024
Internal Evaluator, M.A. in Applied Economics, Faculty of Physical Science	es and Mathematics	12/2023
Internal Evaluator, Ph.D. in Engineering Systems, Faculty of Physical Scie	ences and Mathematics	11/2019
At the Faculty of Economics and Business of the University of Chile:		
Member of the Self Evaluation Committee	05/201	9-06/2020
Member of the Faculty Search Committee	08/201	2-05/2015
Member of the Graduate School Council	11/201	0-12/2011
At the Department of Economics of the University of Chile:		
Junior Recruiting Committee	2019, 2022, 1	2023, 2025
Member of the Academic Committee of the M.A. in Economic Analysis	08/2011-12/2011; 01/201	5-08/2016
Member of the Academic Committee of the M.A. in Public Policies	04/2011-12/2011; 01/201	5-08/2016

SCIENTIFIC COMMITTEES

23rd Annual SAET Conference, Santiago, Chile (session organizer); Workshop on General Equilibrium: Theory and Applications, Brazil, 2019; 16th SAET Conference on Current Trends in Economics, Rio de Janeiro, Brazil (session organizer); 16th International Meeting of the Association of Public Economic Theory, 2016; 2014 Latin American Meeting of the Econometric Society, Brazil; XIII Latin-American Workshop in Economic Theory, Colombia, 2012; 2008 Latin American Meeting of the Econometric Society, Brazil; 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

Students of the M.A. in Economics, University of Chile: Gianina Morales Suazo (2024); Patricio Castillo Díaz (2024); Pedro Schilling Ferraz (2024); Diego Fica Rivera (2019); Mohit Karnani (2018); Daniel Vargas Weil (2016); Loreto Ayala Bosch (2012); Maikol Cerda Zavalla (2010). Students from other graduate programs: Pilar Lorenzo Benavente (Ph.D. in Mathematics, Federico Santa María Technical University, 2022); Rodrigo Raad (Ph.D. in Economics, EPGE/FGV, Brazil, 2011); Rodrigo Novinski (Ph.D. in Science, IMPA, 2007); Jose Heleno Faro (Ph.D. in Science, IMPA, 2006); Rogerio de Deus 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, Computational Economics, Decisions in Economics and Finance, Economic Theory, Economic Theory Bulletin, Economics Bulletin, 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, Theoretical Economics. *Grant reviewer for:* CNPq-Brazil, Fondecyt-Chile, UCSC-Chile. *Reviewer for:* Mathematical Reviews (MathSciNet).

## ACADEMIC VISITS

School of Science and Technology, NOVA University Lisbon, Portugal (2024); Department of Economics and Economic History, University of Salamanca, Spain (2023, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2007, 2006, 2005, 2004); NOVA University 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); School of Business and Economics, NOVA University 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

University of Salamanca, Spain (2024, 2023); 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 Economia, 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)

Latin American Meeting of the Econometric Society (2024, 2023, 2014, 2012, 2008); 35th Stony Brook International Conference on Game Theory, 2024; 2nd Nordic Economic Theory Conference, Helsinki, 2024; 13th UECE Game Theory Lisbon Meetings, 2024; 23rd Annual SAET Conference, 2024; 2023 International Conference on Public Economic Theory; Encuentro de la Sociedad de Economía de Chile - SECHI (2023, 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 Economic Theory, Colombia, 2012; Meeting of the Brazilian Econometric Society (XXIX, XXVII, XXVI, XXV); Second General Equilibrium Workshop in Rio de Janeiro, Brazil; 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 Analise Económica, Spain.

# ADDITIONAL INFORMATION

Nationality: Chilean (Born on December, 1974). Languages: Spanish, Portuguese, English.