

Dr. Ismael Martínez-Martínez

ECONOMICS · GAME THEORY · MATHEMATICAL PSYCHOLOGY

Düsseldorf Institute for Competition Economics (DICE) - Heinrich-Heine-Universität Düsseldorf
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✉ ismael@imartinez.eu | 🌐 www.imartinez.eu | Born on April 3rd, 1989, in Madrid (Spain)

Current position

Düsseldorf Institute for Competition Economics (DICE) Heinrich-Heine-Universität Düsseldorf

POSTDOCTORAL RESEARCHER

- Theoretical and experimental research in game theory, decision-making and behavioral topics.
- Lectures and tutorials on game theory and microeconomic theory.

Düsseldorf, Germany

Dec. 2016 – Present

Education

Ph.D. in Economics (Dr. rer. pol., summa cum laude)

DICE - HEINRICH-HEINE-UNIVERSITÄT DÜSSELDORF

- Dissertation: “Three essays on equilibrium selection with coupled populations”
- First advisor: Prof. Dr. Hans-Theo Normann
- Second advisor: Prof. Dr. Alexander Rasch
- Chair of the committee: Prof. Dr. Paul Heidhues

Düsseldorf, Germany

Oct. 2013 – Nov. 2016

M.Sc. in Economic Analysis

UNIVERSITÉ DE CERGY-PONTOISE

- Main focus on quantitative methods
- Master thesis: “On the Hamiltonian of strategic interaction and its application in the ultimatum game”
- Advisor: Prof. Dr. Eric Danan

Grand Paris, France

Sep. 2012 – Jul. 2013

M.Sc. in Theoretical Physics (first class honors)

UNIVERSITÉ DE CERGY-PONTOISE

- Main focus on Monte Carlo methods, networks and dynamical systems
- Master thesis: “Implementation of economic gas-like models–Influence of the underlying topology”
- Advisor: Prof. Dr. Ricardo López-Ruiz

Grand Paris, France

Sep. 2011 – Jul. 2012

Licentiate in Physics

UNIVERSITY OF ZARAGOZA

Zaragoza, Spain

Sep. 2007 – Jun. 2012

International Baccalaureate - IBO Diploma

I.E.S. PRÁXEDES MATEO SAGASTA

Logroño, Spain

Sep. 2005 – Jun. 2007

Previous positions

Düsseldorf Institute for Competition Economics (DICE)

DOCTORAL RESEARCHER

Düsseldorf, Germany

Oct. 2013 - Nov. 2016

NUMBER26 GmbH

PRODUCT MANAGER INTERN

Berlin, Germany

Jan. 2016 - Apr. 2016

Department of Systems Engineering and Computer Science, Uni. Zaragoza

JUNIOR RESEARCHER

Zaragoza, Spain

Sep. 2011 - Jul. 2012

Institute for Nanoscience in Aragón

SUMMER RESEARCH INTERN

Zaragoza, Spain

Jul. 2010 - Oct. 2010

Pedro Cerbuna Residential College

ASSOCIATE TO THE HEAD OF COLLEGE FOR COMMUNICATION AND AUDIOVISUAL AFFAIRS

Zaragoza, Spain

09. 2009 - Jun. 2010

Grants & Awards

GRANTS

- 2013-2016 Ph.D. scholarship, Düsseldorf Institute for Competition Economics, 50.000+ EUR
2012-2013 Merit scholarship, *Borse d'Excellence*, Université de Cergy-Pontoise, 7.000 EUR
2011-2012 Research grant, Ministry of Education of Spain, 2.700 EUR
2011-2012 Erasmus scholarship, Exchange student in France

AWARDS

- 2007 Silver medal, XVIII Spanish Physics Olympiad, national contest
2006 Selected member, European Union Science Olympiad, Spanish national contest

Publications

IN PEER-REVIEWED JOURNALS

- 2017 Perturbed best response dynamics in a hawk-dove game [6]
Economics Letters 153 (2017) 61–64, with Volker Benndorf
A quantum-like model for complementarity of preferences and beliefs in dilemma games [5]
Journal of Mathematical Psychology (in press), with Jacob Denolf, Haeike Josephy and Albert Barque-Duran
2016 Equilibrium selection with coupled populations in hawk-dove games–Theory and experiment in continuous time [4]
Journal of Economic Theory 165 (2016) 472–486, with Volker Benndorf and Hans-Theo Normann
Quantum stochastic walks on networks for decision-making [3]
Scientific Reports 6 (2016) 23812, 1-13, with Eduardo Sánchez-Burillo
2014 A connection between quantum decision theory and quantum games–The Hamiltonian of strategic interaction [2]
Journal of Mathematical Psychology 58 (2014) 33-44
2013 Directed random markets: connectivity determines money [1]
International Journal of Modern Physics C 24, 1 (2013) 125088, with Ricardo López-Ruiz

IN PEER-REVIEWED COLLECTED VOLUMES

- 2016 Do preferences and beliefs in dilemma games exhibit complementarity? [2]
Springer Lecture Notes in Computer Science (Atmanspacher *et al.*, Eds.) 9535 (2016) 142-153,
with Jacob Denolf and Albert Barque-Duran
2015 Games with type indeterminate players [1]
Springer Lecture Notes in Computer Science (Atmanspacher *et al.*, Eds.) 8951 (2015) 223-239,
with Ariane Lambert-Mogiliansky

Seminar and conference presentations

2017: HHL Leipzig Graduate School of Management (Leipzig, Germany) · 2015: European Meeting of the Economic Science Association (Heidelberg, Germany), Quantum Interaction Conference 15 (Filzbach, Switzerland), Quantum Models of Cognition Symposium (Nice, France) · 2014: Quantum Interaction Conference 14 (Filzbach, Switzerland) · 2013: International Workshop on Non-Linear Maps and Applications (Zaragoza, Spain)

Teaching

DICE - Heinrich-Heine-Universität Düsseldorf

LECTURES

- Game theory (M.Sc., Summer Semester 2017)

TUTORIALS

- Game theory (M.Sc., Summer Semester 2017)
- Advanced Microeconomics–Game theory tutorials for Prof. Dr. Hans-Theo Normann (Ph.D. course and advanced M.Sc. elective, Winter Semester 2016-2017)
- Advanced Microeconomics–Microeconomic theory tutorials for Prof. Dr. Christian Wey (Ph.D. course and advanced M.Sc. elective, Winter Semester 2016-2017)

Refereeing activities

Entropy · Journal of Mathematical Psychology · Mathematical Social Sciences · Philosophical Transactions of the Royal Society A

Other skills

Programming C/C++, Java, Fortran and Pascal

Software Unix/Linux, Mathematica and algebraic packages, Stata, Latex environment

Languages Spanish (native), English (academic proficiency), German (intermediate), French (basic)