

Fernando Vega Redondo

Marketing and Sales

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Curriculum Vitae

Licenciado en Económicas, Universidad Complutense de Madrid, June 1980.

Doctor of Philosophy, University of Minnesota, August 1984. Thesis supervisor: Professor Leonid Hurwicz.

Academic position and/or Professional activities

Full Professor of the Departement of Decision Sciences at Bocconi University

Teaching Assistant, University of Minnesota, 1982-84.

Assistant Professor, Universidad de Alicante, 1984-85.

Research Fellow, Instituto de Análisis Económico, C.S.I.C, Barcelona, 1986-90.

Visiting Scholar, Harvard University, 1987-88.

Research Fellow, Institute for Advanced Studies, Hebrew University of Jerusalem, 1989-90.

Research Fellow, Institute for Advanced Studies, Vienna, 1993.

Visiting Scholar, University of California-San Diego, 1995.

Visiting Scholar, Boston University, 1996.

Visiting Professor, Cornell University, 2006–7.

Professor, Universidad de Alicante, since 1990 (currently on leave).

Professor, University of Essex, 2004–2013.

Professor, European University Institute (Florence), 2007–2013

Professor, Università Bocconi, since September 2013

Editorial activities

Editorial board, *Lecture Notes in Economics and Mathematical Systems*: 2002–4.

Co-editor, *Spanish Economic Review*: 2001–5.

Associate editor, *International Journal of Game Theory*: 2007–

Associate editor, *Games and Economic Behavior*: 2010–

Guest editor, *Proceedings of the National Academy of Sciences of USA*, 2012.

Associate editor, *Network Science*, 2012–

Associate editor, *Journal of Complex Networks*, 2012–

Professional recognition

Honorary Fellow of the Spanish Economic Association 2009–

Fellow of the Society for the Advance of Economic Theory, 2011.

Member of the Council, Game Theory Society, 2011–

Member of the Council, Society for Economic Science with Heterogenous Interacting Agents, 2011–

FUE prize for research in economics, 2011.

Research Interests

- Game Theory
- Evolutionary Theory
- Learning and bounded rationality
- Social networks

Publications

Books

Complex Social Networks, Econometric Society Monograph Series, Cambridge University Press, 2007.

Economics and the Theory of Games, Cambridge University Press, August 2003.

Economía y Juegos, Antoni Bosch Editor, March 2000.

Evolution, Games, and Economic Behavior, Oxford University Press, September 1996 (reprinted 1997).

Articles: English publications

"Leave and let leave: A sufficient condition to explain the evolutionary emergence of cooperation," *Journal of Economic Dynamics and Control* 46, 2014 (joint with Luis R. Izquierdo and Segismundo S. Izquierdo).

"Error Cascades in Observational learning: an Experiment on the Chinos Game," *Games and Economic Behavior* 73, 2011 (joint with Francesco Feri, Miguel A. Meléndez-Jiménez, and Giovanni Ponti).

"Threshold learning dynamics in social networks," 6, 2011 *PLoS ONE* (joint with Juan Carlos González, Víctor Eguiluz, Matteo Marsili, and Maxi San Miguel).

"Vertex centrality measures revealing the structure of modern economies: weighted network analysis of input–output graphs," *Physical Review E* 83, 2011 (joint with Florian Blöchl, Fabian J. Theis, and Eric Fisher).

"Complex networks and local externalities: a strategic approach," *International Journal of Economic Theory* 7, 2011 (joint with Andrea Galeotti).

"The Option to Leave: Conditional Dissociation in the Evolution of Cooperation," *Journal of Theoretical Biology* 267, 2010 (joint with Segismundo S. Izquierdo and Luis R. Izquierdo).

"Network games," *Review of Economic Studies* 77, 2010 (joint with Andrea Galeotti, Sanjeev Goyal, Matthew Jackson, and Leat Yariv).

"Peer effects and peer avoidance: the diffusion of behavior in coevolving networks" *Journal of the European Economic Association* 8, 2010 (joint with Constanza Fosco and Matteo Marsili).

"Economic networks," *Science* 325, 2009 (joint with Frank Schweitzer, Giorgio Fagiolo, Didier Sornette, Alessandro Vespignani, and Douglas R. White).

"Optimal information transmission in organizations: search and congestion," *Review of Economic Design* 13, 2009 (joint with Alex Arenas, Antonio Cabrales, Abert Díaz-Guilera, and Roger Guimerà).

"Economic Networks: What do we know and what do we need to know?" *Advances of Complex Systems* 12, 2009 (joint with Frank Schweitzer, Giorgio Fagiolo, Didier Sornette, and Douglas R. White).

"Homophily, Conformity, and Noise in the (Co-)Evolution of Complex Social Networks in A. Reggiani and P. Nijkamp (eds.), *Complexity and Spatial Networks*", *Advances in Spatial Science*, Springer-Verlag Berlin Heidelberg 2009 (joint with George Ehrhard and Matteo Marsili).

"Emergence and resilience of social networks: a general theoretical framework," *Annales d'Economie et Statistique* 86, 2008 (joint with George Ehrhard and Matteo Marsili).

"Structural holes in social networks," *Journal of Economic Theory* 137, 2007 (joint with Sanjeev Goyal).

"Diffusion and growth in an evolving network," *International Journal of Game Theory* 34, 2006 (joint with George Ehrhard and Matteo Marsili).

"Building up social capital in a changing world," *Journal of Economic Dynamics and Control* 30, 2006.

"Phenomenological models of socioeconomic network dynamics," *Physical Review E* 74, 2006 (joint with George Ehrhard and Matteo Marsili).

"Clustering, Cooperation, and Search in Social Networks," *Journal of the European Economic Association* 3, 2005 (joint with Matteo Marsili and Frantisek Slanina).

"Network formation and social coordination," *Games and Economic Behavior* 50, 2005 (joint with Sanjeev Goyal).

"On the Non-Trivial Dynamics of Complex Networks," *Physica A* 346, 2005 (joint with Ginestra Bianconi and Matteo Marsili).

"On the rise and fall of networked societies," *American Institute of Physics Conference Proceedings* 779, 2005 (joint with George Ehrhard and Matteo Marsili).

"Self-organized-critical network dynamics," *American Institute of Physics Conference Proceedings* 776, 2005 (joint with Ginestra Bianconi and Matteo Marsili).

"Network formation and anti-coordination games," *International Journal of Game Theory* 33, 2004 (joint with Yann Bramouille, Sanjeev Goyal, and Dunia López-Pintado).

"Migration and the evolution of conventions," *Journal of Economic Behavior and Organization* 55, 2004 (joint with V. Bhaskar).

"The rise and fall of a networked society: a formal model," *Proceedings of the National Academy of Sciences of the U.S.A.* 101, 2004 (joint with Matteo Marsili and Frantisek Slanina).

"Search and congestion in complex networks," *XVIII Sitges Conference on Statistical Mechanics*, R. Pastor-Satorras, M. Rubi, and A. Díaz-Guilera (eds.), Springer Verlag 2003 (joint with A. Arenas, A. Cabrales, A. Díaz-Guilera, and R. Guimerà).

"Learning to play in a (stylized) Chinos game," in *Modelling Complex Systems*, P.L. Garrido and J. Marro (eds.), *American Institute of Physics Conference Proceedings* 661, 2003 (joint with L. Pastor-Abia, E. San-Fabián, and E. Louis)

"Optimal network topologies for local search with congestion," *Physical Review Letters* 89, 2002 (joint with R. Guimerà, A. Díaz-Guilera, A. Cabrales, and A. Arenas).

"Self-organized criticality in evolutionary systems with local interaction," *Journal of Economic Dynamics and Control* 26, 2002 (joint with A. Arenas, A. Díaz-Guilera, and C. Pérez).

"Asynchronous choice and Markov equilibria," *Journal of Economic Theory* 103, 2002 (joint with V. Bhaskar)

"New results in a self-organized model of technological evolution," *Advances in Complex Systems* 4, 2001 (joint with G. Oron, A. Arenas, A. Díaz-Guilera, M. Llas, and C. Pérez)

"On the evolution of individualistic preferences: complete versus incomplete information scenarios," *Journal of Economic Theory* 97, 2001 (joint with Efe Ok).

"Strategic behavior and information transmission in a stylized (so-called Chinos) guessing game," *Advances in Complex Systems* 4, 2001 (joint with L. Pastor-Abia, J.M. Pérez Jordá, E. San-Fabián, and E. Louis).

"Self-organized evolution in socio-economic environments," *Physical Review E* 61, 2000 (joint with A. Arenas, A. Díaz-Guilera, and C. Pérez).

"Unfolding social hierarchies," *Journal of Economic Theory* 90, 2000.

Markets under bounded rationality: from theory to facts," *Investigaciones Económicas* 23, 1999.

"Convergence of aspirations and (partial) cooperation in the Prisoner's Dilemma," *International Journal of Game Theory* 28, 1999 (joint with F. Palomino).

"An evolutionary model of market structure," in *The Theory of Markets*, ed. by J.-J. Herings, A.J.J. Talman, and G. van der Laan, Amsterdam: North Holland, 1999 (joint with C. Alós-Ferrer and A.B. Ania).

"Industrial dynamics, path dependence, and technological change," *Spanish Economic Review* 1, 1999.

"Externalities, expectations, and growth," *Economic Theory* 14, 1999.

"Evolving aspirations and cooperation," *Journal of Economic Theory* 80, 1998 (joint with R. Karandikar, D. Mookherjee, and D. Ray).

"Multilevel evolution in games," *International Journal of Game Theory* 27, 1998 (joint with José Canals).

"Shaping long-run expectations in problems of coordination," *European Journal of Political Economy* 13, 1997.

"The evolution of Walrasian Behavior," *Econometrica* 65, 1997.

"Long-run efficiency in evolutionary games with random matching," *Journal of Economic Theory* 70, 1996 (joint with Arthur Robson).

"Long-run cooperation in the one-shot Prisoner's Dilemma: a hierarchic evolutionary approach," *Biosystems* 37, 1996.

"Pollination and reward: a game-theoretic approach," *Games and Economic Behavior* 12, 1996.

"Technological change and market structure," *International Journal of Industrial Organization* 14, 1995.

"Public subscription and private contributions," *Social Choice and Welfare* 12, 1995.

"Expectations, drift, and volatility in evolutionary games," *Games and Economic Behavior* 11, 1995.

"The dynamics and revealed preference of status-quo optimality", *Economic Theory* 6, 1995.

"Technological change and path dependence: a two-country co-evolutionary model," *Journal of Evolutionary Economics* 4, 1994.

"Technological change and path dependence," in *Catching up, Forging Ahead, and Falling Behind*, edited by J. Fargerberg, N. von Tunzelman and B. Verspagen, Edward Elgar, 1994.

"Bayesian boundedly rational agents play the repeated Prisoner's Dilemma," *Theory and Decision* 36, 1994.

"Games with changing payoffs: comments," in *The Economies of Growth and Technological Change*, edited by J. Silverger and Luc Soete, Edward Elgar, 1994.

"Technological change and institutional inertia: a game-theoretic approach," *Journal of Evolutionary Economics* 3, 1993.

"A theoretical model of predator-prey signalling," *Journal of Theoretical Biology* 160, 1993 (joint with Oren Hasson, junior author).

"Competition and culture in an evolutionary process of equilibrium selection: a simple example," *Games and Economic Behavior* 5, 1993.

"Simple and inertial behavior: an optimizing model with imprecise perceptions," *Economic Theory* 3, 1993.

"The phenomenon of unemployment: its persistence and rationing," *Revista Española de Economía* 7, 1990.

"Implementation of Lindahl Equilibrium: an integration of the dynamic and static approaches," *Mathematical Social Sciences* 18, 1990.

"Extrapolative expectations and market stability," *International Economic Review* 30, 1989.

"Efficiency and nonlinear pricing in nonconvex environments with externalities," *Journal of Economic Theory* 40, 1987.

"Nash implementation of the Lindahl performance correspondence: an impossibility result," *Economic Letters* 19, 1985.

Articles: Spanish publications

"Evolución en teoría de juegos, y viceversa," *Anthropos* 182, 1999.

Foreword to *¿Que inventen ellos? Tecnología, empresa y cambio económico en la España contemporánea*, edited by Santiago M. López García y Jesús M. Valdaliso, Alianza Editorial, 1997.

"Crónica de un galardón anunciado," *Cuadernos Económicos del ICE*, enero 1995.

"Evolución y estrategia: teoría de juegos con agentes limitados y un contexto cambiante," *Hacienda Pública* 125, 1993.

"Competencia intergubernamental en un estado federal," *Revista Española de Economía* 9, 1992 (joint with Roberto Burguet).

"Incentivos y eficiencia en mecanismos de asignación de recursos: un problema de diseño," in *Nuevas Perspectivas de Teoría Económica*, edited by R. Marimón and X. Calsamiglia, Ariel, 1991.

"El sistema de financiación autonómica como un proceso de negociación," *Investigaciones Económicas* 14, 1990 (joint with Roberto Burguet).

"Amenazas increíbles, percepciones insostenibles: refinamientos del equilibrio de Nash," *Cuadernos Españoles de Economía del ICE* 40, 1988.

"El crecimiento potencial de la economía española: un modelo basado en las tablas input-output de 1975," in *La Estructura Productiva Española*, Fondo para la Investigación Económica y Social de la Confederación Española de Cajas de Ahorro, 1980 (joint with Carlos Sebastián, Luis Servén, Miguel Sebastián and Iñigo Zapater).

Miscellanea

"Learning and Evolutionary Game Theory," forthcoming in *Encyclopedia of the Sciences of Learning* (joint with Segismundo S. Izquierdo and Luis R. Izquierdo).

"Evolutionary games and learning," in *Optimization and Operations Research*, edited by Ulrich Derigs in *Encyclopedia of Life Support Systems (EOLSS)*, UNESCO and EOLSS, EOLSS Publishers, Oxford, UK, 2002.

"Nash Equilibrium," in *An Eponymous Dictionary of Economics*, edited by J. Segura and C. Rodríguez Braun, Cheltenham, UK: Edward Elgar, 2004.

Review of the book *Evolutionary Games and Equilibrium Selection* by Larry Samuelson (MIT Press, 1997), *Journal of Economic Literature* 36, 1998.