Gabrielle DEMANGE

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Education

Ecole normale supérieure, Mathematics, 1973-78, France. École nationale de la statistique et de l'administration économique (ENSAE), 1977-79. Agrégation de Mathématiques, 1976. Thèse de 3eme cycle 1980, Thèse d'Etat Paris IX, 1986.

Present and Past Positions

Present position : Directeur d'Etudes at EHESS, 1990-. Associate Chair Paris School of Economics, 2006-Past positions:
Assistant Professor, Paris VI University, 1977-1985.
Maître de Conférences, Paris I University, 1986-1987.
Professor, Paris XIII University, 1988-1990.
Maître de Conférences at the Ecole Polytechnique, 1986-1999.

Research: Laboratoire d'économétrie de l'Ecole Polytechnique, 1980-1990, Delta then PSE,1990-.

Editorial Activities

Co-editor *Economic Theory*, 1998-2004. Associate Editor *Review of Economic Design*, 1998-. Associate Editor *Mathematical Social Sciences*, 2000-2011. Associate Editor *Finance*, 2000-2005. Associate Editor *Mathématiques et Sciences Humaines*, 1990-2000. Member of the *Economic policy* panel, 2004-2005 Associate editor of *Journal of European Economic Association*, 2004-2007.

Fellowship/ Council membership

Fellow of the Econometric Society, 1992-.
CEPR Research Fellow, 1997-.
Member of the CESifo Network, 2006-.
Game Theory Society charter member.
Game Theory Society council member, 2006-2009.
Council member of the Society for Social Choice and Welfare, 2008-2013.
Economic Theory Fellow, Society for the Advancement of Economic Theory, 2011.
Elected Member of Academia Europea, 2012.
CNRS Silver medal 2015.

Selected Academic Activities

Coopted member of the board of the Fondation Banque de France 2016 -2019. Member of the scientific council of the Fondation Banque de France 2012-2015. Member of the committee "Sciences économiques" Fonds de la Recherche Scientifique – FNRS Belgium 2008-2010. Scientific Council of Laboratoire Européen Associé GREQAM (Marseille), CORE (Louvain) and the GRECA (Barcelone) 2001-2007.

Co-organizer of Winter Meeting of the Econometric Society, 1993-2001. Co-organizer of a Joint Workshop ESSEC-HEC-INSEAD-PSE, 2003 -2010. Co-organizer of *Chaire d'assurance*, Paris (with Pierre Picard and Pierre-Yves Geoffard), 1999-2006. Co-organizer of the "Risks and Social Protection" Seminar at Delta then PSE 1999-2006. Organizer of séminaire Fourgeaud, Ecole des Ponts et Chaussées, Paris, 1989-1991. Organizer of *Formation Mathématique de la Finance*, Collège Polytechnique, 1992-1995.

Chairman of the European Meeting of the Econometric Society, Economic Theory, (ESEM 2007), Budapest, 2007.

Member of Programme Committees for numerous meetings of the European Econometric Society, European Economic Association, the Society for the Advancement of the Economic Theory, Public Economic Theory.

Fellows Nominating Committee of the Econometric Society, 1999, 2008.

Member of the EEA Nominating Committee, 2002...

Member of the committee of Women in Economics, European Economics Association 2016-.

Member of Programme Committees for the Conference Web and Internet Economics 2005 and 2007, Electronic Commerce Conference 2017, the 5th International Conference in Algorithmic Decision Theory 2017, Data for Policy Conference <u>http://dataforpolicy.org</u>, 2016 and 2017.

Administrative responsibilities

Director of Doctoral Formation "Analyse et Politique Economiques", EHESS, ENSAE, Ecole Polytechnique, Ecole Normale Supérieure, 1991-1999. Responsible for APE of the European Doctoral Programme in Quantitative Economics <u>www.edpqe.eu</u>, 1994-2007. Scientific Council EHESS, 1993-1997. Responsible at Delta of 'Markets and Organizations', 1999-2007. Responsible for PSE of 'Markets and Organizations' team 2007--Steering Committee PSE, 2007-2012.

Areas of Research Interest

Game theory, Networks theory Risk sharing, functioning of the financial markets (information, imperfect competition) Social Security, Intergenerational risk sharing.

Main Courses Taught

Microeconomics (introduction, advanced) General equilibrium, Financial Economics (introduction, advanced), Game Theory (introduction, advanced), Topics in Networks

Publications

Books

Finance and the Economic of Uncertainty, with Guy Laroque, Blackwell, 2006, 281 p.

Group Formation in Economics: Networks, Clubs and Coalitions, Editors Gabrielle Demange and Myrna Wooders, Cambridge University Press, 2005, 480 p.

Finance et Economie de l'incertain, with Guy Laroque, Economica, 2001, 267 p.

Théorie des Jeux et Analyse Economique, with Jean-Pierre Ponssard, Presses Universitaires de France, 1994, 233 p.

Méthodes Mathématiques de la Finance, with Jean-Charles Rochet, Economica, 1992, third édition, 2005, collection « Economie et Statistiques avancées », 303 p.

Articles in refereed journals

"Rumors and Social Networks", with Francis Bloch and Rachel Kranton, fortchoming in *International Economic Review*.

"Communicating on electoral platforms", with Karine Van der Straeten, forthcoming in *Journal of Economic Behavior & Organization*.

"Taxation and Privacy Protection on Internet Platforms," with Francis Bloch, forthcoming in *Journal of Public Economic Theory*.

"Mutual rankings", forthcoming in *Mathematical Social Sciences 2017* http://dx.doi.org/10.1016/j.mathsocsci.2016.09.006

"Contagion in financial networks: a threat index", *Management Science 2016.*, *Permalink:* <u>http://dx.doi.org/10.1287/mnsc.2016.2592</u>

« Joint Design of Emission Tax and Trading Systems », with Bernard Caillaud, forthcoming in *Annals of Economics and Statistics*. 2017. https://dumas.ccsd.cnrs.fr/PREPRINT/halshs-01112185v2

"Quality of Education and the Number of Students: A General-Equilibrium Analysis" with Robert Fenge and Silke Uebelmesser *Journal of Institutional and Theoretical Economics*. (2015),171(3), 456-477.

"A ranking method based on handicaps" Theoretical Economics, 9 (2014), 915–942.

"Financing Higher Education in a Mobile World", *Journal of Public Economic Theory*, with Robert Fenge and Silke Uebelmesser, 2014, *16*(3), 343-371.

"Collective attention and ranking methods" *Journal of Dynamics and Games*, American Institute of Mathematical Sciences, USA, Volume 1, Number 1, January 2014, 17-43, DOI: <u>10.3934/jdg.2014.1.17</u>.

"On allocating seats to parties and districts: apportionments", *International Game Theory Review*, Vol. 15, No. 3 (2013) DOI: 10.1142/S0219198913400148.

"On the influence of a ranking system", *Social Choice and Welfare*, Vol 39, Issue 2 (2012), Page 431-455, DOI 10.1007/s00355-011-0631-5.

"On party-proportional representation under district distortions", *Mathematical Social Sciences* 2012, 63, 181-191, DOI:10.1016/j.mathsocsci.2011.10.002.

"Majority relation and median representative ordering", *SERIEs*: 2012, 3, Issue 1, 95-109, DOI 10.1007/s13209-011-0052.

"Universally Balanced Combinatorial Optimization Games", with Xiaotie Deng, *Games*, 2010, 1, 299-316.

"Sharing information in web communities" *Games and Economic Behavior*, March 2010, Volume 68, Issue 2, 580-601.

"On sustainable Pay-As-you-Go contribution rules", *Journal of Public Economic Theory* 2009, 11 (4), 493-527.

"The strategy structure of some coalition formation games", *Games and Economic Behavior*. January 2009, 65, issue 1, 83-104.

"The Provision of Higher Education in a Global World-Analysis and Policy Implications", with Robert Fenge and Silke Uebelmesser, *CESifo Economic Studies*, 2008 doi10.1093/cesifo/ifn010.

"Information Sharing Communities" *Springer's LNCS, Lecture Notes in Computer Science,* 2007 pp 96-107.

"Reforming incentive schemes under political constraints: The physician agency", with Pierre-Yves Geoffard, *Annales d'économie et de statistique*, 2006 83/84, 227-250.

"Incentives in some coalition formation games" *Springer's LNCS, Lecture Notes in Computer Science,* December 2005, 258-268.

"On group stability in hierarchies and networks", *Journal of Political Economy*, August 2004, 112, 754-778.

"Ouverture des systèmes de retraite par répartition: l'impact du libre choix", *Revue Economique*, 55, May 2004, 479-488.

"Impact de la liquidation d'une option sur un marché d'action" with Cécile Boyer, Annales d'économie et de statistique, 73, Janvier-Mars 2004, 119-140.

"On optimality in intergenerational risk sharing", Economic Theory, 20, 2002, 1-27.

"On coalitional stability of anonymous interim mechanisms", with Roger Guesnerie, *Economic Theory*, 18 (2), 2001, 367-389.

"Social Security with heterogeneous populations subject to demographic shocks", with Guy Laroque, *Geneva papers on Risk and Insurance Theory*, 26, 2001, 5-24.

"Retraite par répartition ou par capitalisation : une analyse de long terme", with Guy Laroque, *Revue Economique*, 2000, 813-829.

"Social Security, Optimality and Equilibria in a Stochastic Overlapping Generations Economy", with Guy Laroque, *Journal of Public Economic Theory*, 2 (1), 2000, 1-23.

"Social Security and Demographic Shocks", with Guy Laroque, *Econometrica*, 67, 1999, 527-542.

"Efficiency and Options on the Market Index", with Guy Laroque, Economic Theory, 14, 1999, 227-236.

"Long-Sighted Principal and Myopic Agents", with Guy Laroque, *Journal of Mathematical Economics*, 30, 1998, 119-146.

"Non-emptiness of the Core: Low Dimensional Decisions Spaces and One-Dimensional Preferences", with Roger Guesnerie, *Research in Economics*, 51, 1997, 7-17.

"Private Information and the Design of Securities", with Guy Laroque, *Journal of Economic Theory*, 65, 1995, 233-257.

"Optimality of Incomplete Markets", with Guy Laroque, Journal of Economic Theory, 65, 1995, 218-232.

"Information asymétrique et émissions d'actifs", with Guy Laroque, Revue Economique, 1994, 639-656.

"Intermediate Preferences and Stable Coalition Structures", *Journal of Mathematical Economics*, 1994, 45-58.

"Rational Escalation", Annales de l'INSEE, 1992, 227-249.

"Sustainable Oligopolies", with Dominique Henriet, Journal of Economic Theory, 54, 1991, 417-428.

"Fair Allocation of Indivisible Goods and Money and Criteria of Justice", with A. Alkan and D. Gale, *Econometrica*, 59, 1991, 1023-1040.

"An Axiomatic Approach to Proportionality between Matrices", with Michel L. Balinski, *Mathematics of Operations Research*, 1989, 700-719.

"Algorithm for Proportional Matrices in Reals and Integers", with Michel L. Balinski, *Mathematical Programming*, 1989, 193-210.

"Nonmanipulable Cores", Econometrica, 55 (5), 1987, 1057-1074.

"A Further Note on the Stable Matching Problem", with D. Gale and M. Sotomayor, *Discrete Applied Mathematics*, 16, 1987, 217-222.

"Barrière de mobilité et concurrence dans un duopole", with Jean-Pierre Ponssard, *Annales de l'INSEE*, 1, 1986, 35-53.

"Multi-Item Auctions", with David Gale and Marilda Sotomayor, Journal of Political Economy, 94 (4),

1986, 863-872.

"Free-Entry and Stability in a Cournot Model", Journal of Economic Theory, 40 (2), 1986, 283-303.

"Asymmetries in Cost Structure and Incentives toward Prices Competition", with Jean-Pierre Ponssard, *International Journal of Industrial Organization*, 3, 1985, 85-100.

"The Strategy Structure of Two Sided Matching Markets", with D. Gale, *Econometrica*, 53 (4), 1985, 873-888.

"Implementing Efficient and Egalitarian Equivalent Allocations", *Econometrica*, 52 (5), Sept.1984, 1167-1177.

"Single Peaked Orders on a Tree", Mathematical Social Sciences, 3 (3), 1983, 389-396.

"A Limit Theorem on the Minmax Set", Journal of Mathematical Economics, 9, 1982,145-164.

Chapters in books

Diffusion of Defaults Among Financial Institutions, Chapter 1 F. Abergel et al. (eds.), *Econophysics of Systemic Risk and Network Dynamics*, 3 New Economic Windows, DOI 10.1007/978-88-470-2553-0_1, © Springer-Verlag Italia 2013.

L'ingénierie financière : quelles dérives ? Chapitre 2 dans « 16 Nouvelles questions d'économie contemporaine » ouvrage collectif dirigé par Daniel Cohen et Philippe Askenazy Albin Michel, 2010, 117-138.

"Free Choice of Unfunded Systems: A Preliminary Analysis of a European Union challenge", *Pension Strategies in Europe and the United States* editors Robert Fenge, Georges de Menil and Pierre Pestieau MIT Press 2008, 206-242.

"Group formation: The interaction of increasing returns and preferences' diversity", in *Group Formation in Economics: Networks, Clubs and Coalitions,* eds Demange G. and M.Wooders, Cambridge University Press, 2005.

"Voluntary pay-as-you-go social security and intergenerational risk sharing", with Guy Laroque, in *Institutional and Financial Incentives in Social Insurance*, eds C. D'aspremont, V. Gingsburgh, H. Sneessens, F. Spinnewyn, Kluwer Academic Publishers 2002, 175-189.

"Investment, Security Design and Information" with Guy Laroque, in *Banking, Capital Markets and Corporate Governance*, eds H. Osano and T. Tachibanaki, 2002 Palgrave.

"A Duopoly Model Suggesting a Taxomony of Competitive Situations", with Jean-Pierre Ponssard, in *Microeconomic Contributions to Strategic Management*, eds Thepot and Thietart, 1991, Elsevier Science Publishers, 8-22.

"Le redressement des Tables de Contingence : Deux nouvelles approches", with Y.A It- Sahalia and M.L Balinski, in *Recherches Economiques : études en hommage à Edmond Malinvaud*, Economica and EHESS, 1988. English version "The adjustment of contingency tables: Two new approaches", in: *Essays*

in Honor of Edmond Malinvaud, Volume 3: Empirical Economics, Cambridge MA, 99-114.

"Notes on defining proportionality between matrices" with M. Balinski in: *Proceedings of the Eighth Mathematical Programming Symposium*, Japan, Chugoku Electric Power Co., Hiroshima, [1987], pp. 1-17.

"Spatial Models of Collective Choice", in *Locational Analysis of Public Facilities*, J. F. Thisse and H-G Holler eds, North Holland, 1983, 153-182.

Working papers

Optimal targeting strategies in a network under complementarities, Revise and Resubmit, Games and Ecnomic Behavior.

Cash Providers: Asset Dissemination over Intermediation Chains (with Jean-Edouard Colliard), Revise and Resubmit at Econometrica.

Other Publications

"Conférences internationales sur le climat: reculades ou avancées ? " commentaire dans l'ouvrage collectif "5 crises, 11 nouvelles questions d'économie contemporaine, Economiques, 3, dirigé par Daniel Cohen et Philippe Askenazy, à paraître chez Albin Michel, 2013.

Competition between unfunded systems: A European Union challenge, October 2008, *Pensions : an International Journal* 13: 213-220.

"À quoi peut servir la concurrence en assurance santé ?" with Pierre-Yves Geoffard, *Revue d'économie politique*, 114, Septembre-Octobre 2004, 595-611.

"Quelles formes de concurrence en assurance santé ?", with Pierre-Yves Geoffard, *Risques*, 49, 2002, 47-53.

"La réforme de l'Union Européenne à partir de la théorie des jeux : Commentaires", *Revue française d'économie*, October 2001, 63-73.

Plenary Talks since 2008

The 12th European Meeting of Game Theory July 11th 13 th 2016 Odense (Denmark).

The 13th Meeting of the Society for Social Choice and Welfare June 28 - July 1 2016, at Lund University. Plenary Lecture, UECE Lisbon Meetings 2011: Game Theory and Applications in Lisbon, Portugal, November 2011.

Plenary Lecture, Public Economic Theory Conference (PET11), Indiana University Bloomington, USA, June 2011.

Plenary Lecture, COMSOC-2010, The third International Workshop on Computational Social Choice, Düsseldorf, Germany, September 2010.

Plenary Lecture, Second Brazilian Workshop of the Game Theory Society, University of Sao Paulo,

Brazil, August 2010. Semi-plenary, World Congress of the Game Theory Society, Northwestern, July 2008.

Talks-Visits since 2008

2008

Visit at CMS-EMS (Center for Mathematical Studies in Economics & Management Science), Kellogg School of Management, Northwestern University, April 28-May 7.

Journée Math-Eco Lille, May 22 2008.

Semi-plenary lecture at the World Congress of the Game Theory Society on July 13-17, 2008, Northwestern.

Visit at Sabanci University (Turkey) 15 November-2 Décember 2008, mini course and seminar.

Seminar à Koc Universiy (Istanbul), Bilkent November 2008.

Seminar à Bilkent University (Ankara) November 2008.

2009

Séminaire Roy, Paris, 2009.

Colloquium "Collective choice and economic design" Leuven- 9-10 November 2009.

Public Economic Theory Conference Galway, Ireland, June 18-20 2009.

2010

CRETA workshop on Economic Theory, Warwick University, 9-10 June 2010.

Information and behavior in networks, ESF workshop Oxford, 8-9 December 2010.

Seminar talk at Saarland University, Saarbruecken, Germany, 20 December 2010.

European Economic Association, August 2010.

3rd Financial Risks International Forum Paris on March 15 & 26 2010.

2011

Social Choice Colloquium, Tilburg University, Netherlands, January 28 2011.

3e Printemps des SHS: Les jeux de la décision (économie et risques): Incertitude et décisions économiques, MESHS, Lille, April 14 2011.

MINT Seminar "Models of Influence and Network Theory", Centre d'Economie de la Sorbonne, Université Paris 1 Panthéon – Sorbonne, Paris, May 19 2011.

Plenary lecture, Public Economic Theory Conference (PET11), Indiana University Bloomington, USA, June 1-4 2011

11th SAET (Society for The Advancement of Economic Theory) Conference, Ancao (Faro), Portugal, June 26 -July 1 2011.

European Summer Symposium in Economic Theory, Gerzensee, Switzerland, July 4-15 2011.

ECONOPHYS – KOLKATA VI: International Workshop on Econophysics of systemic risk and network dynamics, Kolkata, India, October 20-25, 2011

Plenary lecture: UECE Lisbon Meetings 2011: Game Theory and Applications in Lisbon, Portugal, November 3-5 2011.

EMLYON Business School, Lyon, November 16 2011.

Invited Seminar at the Center for Rationality in the Hebrew University, Jerusalem, December 18 2011.

Invited Seminar at Game Theory and Mathematical Economics Research Seminar, Tel Aviv, December 20 2011.

2012

5th Financial Risks International Forum in Paris, March 22 & 23 2012.

GAMES 2012, Istanbul, July 13-27, 2012.

Invited Seminar at Uppsala University, October 16 2012.

Invited Seminar at Stockholm University, October 18 2012.

Invited Seminar at Queen Mary, London, 3 December 2012.

2013

Invited presentation in "Incentives and the design of mechanisms in open science". Bordeaux, 11 January 2013.

Visit at NYU, March 18-April 11 2013.

Invited Seminar at New York University, March 25 2013.

Invited Seminar at Columbia University, Microeconomic colloquium, April 8 2013.

Workshop "Interface of Computation, Game Theory, and Economics", Dagstuhl, Germany, April 14–19, 2013.

Panel session at Matching in Practice workshop in Brussels, 20-21 May 2013.

AFFI 2013 conference, Lyon, May 28 - 31, 2013.

International Conference on Financial Regulation & Systemic Risk, ESCP Paris, 6-8 June 2013.

Public Economic Theory Conference (PET 2013) Lisbon, July 2013.

Arne Ryde Mini-Course on Economic Design, Lund Summer School, 24 July 2013.

Conference on Economic Design, Lund, 25-27 July, 2013.

Transatlantic Theory Workshop, Oxford, 8-11 September 2013.

2014

CEAFE 2014 meeting, Agadir, April 2014.

Seminar at GREThA, Bordeaux, 23 May 2014.

World Congress of Environmental and Resource Economists 2014 Istanbul.

Finance seminar at Université de Toulouse 22 September 2014.

UECE Lisbon Meetings 2014, November.

Invited speaker at the 5th Annual Financial Market Liquidity Conference Budapest, Hungary, 20th-21th November 2014.

Networks and Linkages Paris, September 25 2014.

Visit at Greqam, Vieille Charité, Marseille, December 2-9 2014.

Rating, Ranking, and Recommendation systems, Paris, 18-20 December 2014.

2015

Visit at Greqam, Vieille Charité, 17-31 January 2015.

Seminar, Greqam, Marseille, 22 January 2015.

Symposium on Contagion, Cambridge, 23-24 April 2015.

Invited Seminar, University of Glasgow, May 5 2015.

Conference "Wealth behaviors in the financial crisis", CDC, EHESS, Paris, May 22.

European Summer Symposium in Economic Theory 2015, Gerzensee, 29 June-10 July 2015.

Conference in honor of Hervé Moulin, Marseille 17-18 September 2015.

Meeting of COST Action IC1205 on Computational Social Choice, Istanbul, November 2-4 2015.

Ninth Workshop on Economic Design and Institutions, Bruxelles, 5 December 2015.

2016

Workshop on the Legal and Political Feasibility of a Data Levy, 7 March and 6 June, Oxford Internet Institute/Rockefeller Foundation.

Plenary Condorcet lecture of the 13th Meeting of the Society for Social Choice and Welfare June 28 - July 1 2016, Lund University.

Plenary lecture at the 12th European Meeting of Game Theory July 11-13 2016 Odense (Denmark).

GAMES 2016, 5th World Congress of the Game Theory Society, Maastricht, the Netherlands, 24/28 July.

Mentoring session at the EEA Standing Committee on Women in Economics, 21 August, Geneva.

ESEM and EEA meetings, 22-26 August 2016, Geneva.

Riksbank Workshop "Challenges in Interconnected Financial Systems", September 1st-2nd 2016, Sveriges Riksbank, Stockholm.

Data for Policy Conference 15-16 September 2016, University of Cambridge, UK.

Murat Sertel Workshop on Economic Design Decision, Institutions and Organizations, September 23-24 2016 Conservatoire National des Arts et Métiers, Paris, France.

2017

Visit at NYU, February 27-March 4.

External Seminar at the University of Bath in the Department for Economic, 5th April.

External seminar University of St Andrews, Scotland 27 April.

Workshop "OTC Markets and Their Reform" June 8-10 on Riggi Kaltbad Switzerland.