

Gisèle Umbhauer

Previous positions

November 1989: PhD in Economics, University Louis Pasteur Strasbourg, France.

« *Information incomplète et qualité des produits* » (*Incomplete information and product quality*)
Supervisor: Jacques Thépot (PhD committee: Sylvain Sorin, Jean-Pierre Ponsard, Rodolphe Dos Santos Ferreira, Jacques Moreau). Highest level of distinction.

ADRERUS (association for the development of links between economics and research) PhD prize, AFSE (French Economic Association) first special mention.

1993: HDR habilitation à diriger des recherches (accreditation to direct research) University Louis Pasteur, Strasbourg

1996-2002 : director of the Magistère de Génie Economique, University of Strasbourg

2005-2010 : co-director of the Master Industrial Organization and Knowledge Economy/ Economics and Management of Innovation, University of Strasbourg.

Since 1989: Associate Professor (Maître de Conférences) at the University of Strasbourg and member of the BETA (Bureau of Theoretical and Applied Economics).

Teaching (since 2011)

Faculty of Economic and Management Sciences, University of Strasbourg

Undergraduate level:

- Game theory (3^d year), Linear and nonlinear optimization (3^d year), Microeconomics (1st year)

Graduate / PhD level:

- Game theory and industrial economics/Firms and markets (4th year)
- Bargaining and auctions (post doctoral level)

June 2022, Center for Advanced Studies in Economics and Data Sciences, Hanoi, Vietnam Introduction to Game Theory

PhD supervision of:

Guillaume Haeringer “Hétérogénéité des agents et formations des coalitions” (agent heterogeneity and coalition formation) defended in May 2000.

Frédéric Koessler “Connaissances Interactives et révélation stratégique d’information” (interactive knowledge and strategic revelation of information) defended in December 2001.

Adeline Welter “L’expertise pharmaceutique: une analyse critique de l’émergence d’un nouveau marché ” (new market of pharmaceutical expertise) defended in December 2011.

Jean-Philippe Atzenhoffer “Evolution, normes sociales et la soutenabilité des ressources communes ” (evolution, social norms and sustainability of common resources) defended in December 2011.

Arnaud Wolff “Social incentives and the strategic nature of beliefs and preferences” defended on December 6th, 2022.

Current Fields of Research

Game theory (best reply matching, minimax regret, forward induction), Applied Game Theory (auctions, asbestos conflict, plea-bargaining ...), Behavioral Economics.

Publications

<https://www.researchgate.net/profile/Gisele-Umbhauer>

Books

- *Game theory and exercises*, Routledge Advanced Texts in Economics and Finance, Routledge Editors, January 2016.
- *Théorie des jeux* (Game theory) Collection Dyna'Sup, Editions Vuibert, September 2004.
- *Théorie des jeux appliquée à la gestion* (Game theory and management), Collection « Les Essentiels de la Gestion », Éditions Management et Société (EMS), July 2002.

(selection among) Collective books

- Chapter 9, Second-Price All-Pay Auctions and Best-reply Matching Equilibria, in *Game Theoretic Analysis*, L.A. Petrosyan and D.W.K. Yeung (eds), World Scientific Publishing Co, Pte, Ltd, 2020.
- Chapter 3, Game situations (with Jean-François Laslier and Bernard Walliser), in *Evolutionary Microeconomics*, J. Lesourne, A. Orléan and B. Walliser (eds), Springer Verlag 2006.
- Chapitre 3, Situations de jeux (with Jean-François Laslier and Bernard Walliser) in *Leçons de Microéconomie évolutionniste*, J. Lesourne, A. Orléan et B. Walliser (eds), Éditions Odile Jacob, novembre 2002.
- La théorie des règles du jeu, Cédérom *L'organisation : découvrir et comprendre*, E. Friedberg, Banlieues Média 2002.
- Formation de la réputation : quelques apports sur le rôle de l'inertie (reputation building: some contributions to the role of inertia) in *Décision, prospective, auto-organisation, Mélanges en l'honneur de Jacques Lesourne*, J. Thépot et al. (eds), Dunod, 2000.
- Can neighborhood protect diversity? in *The economics of networks : interaction and behavior*, P. Cohendet, P. Llerena, H. Stahn, G.Umbhauer (eds), Springer Verlag, 1998.
- Chapitres 6 et 9, Le temps dans les jeux ou le contenu stratégique du temps - Qu'apprend un joueur ? Aperçu sur l'évolution des comportements en théorie des jeux dans *Gestion et théorie des jeux : l'autre dans la décision*, J. Thépot (ed), Éditions Vuibert, 1998.
- Jeux évolutionnistes et concepts de voisinage : une application à l'évolution des réseaux, dans *Approches multifformes de la proximité* M. Bellet, T. Kirat et C. Largeron (eds), Éditions Hermès, Paris, 1998.
- Discrete evolutionary processes: stationary probabilities, strategic asymmetries and learning schemes, in *Self organization and evolutionary economics: new developments*, J. Lesourne (ed), Economica, 1998.
- Information transmission in signaling games: confrontation of different forward induction criteria, in *Models and experiments in risk and rationality*, B. Munier and M. Machina (eds), Kluwer Academic Publishers, 413–438, 1994.

Academic reviews

- Traveler's dilemma: how the value of the luggage influences behaviour, with Mathieu Lefebvre, *Revue Economique and Cairn International*, 2023, forthcoming
- Market exit and minimax regret, *International Game Theory Review*, 2022, Vol 24, n°4, 34 pages, 2022 DOI: 10.1142/S021919892250013X

- Le système cognitif Lesournien, une pensée et des outils pour demain-Deuxième partie, la dynamique du changement, l'éthique et la vision du futur (avec Rémi Barré, Nicolas Curien, Anne Marchais Roubelat), *Variations.eu*, 21 Juin 2021 (<http://variances.eu/?p=6013>)
- Le système cognitif Lesournien, une pensée et des outils pour demain- Première partie, une pensée systémique vouée à l'étude des systèmes (avec Rémi Barré, Nicolas Curien, Anne Marchais Roubelat), *Variations.eu*, 14 Juin 2021 (<http://variances.eu/?p=6010>)
- Second-Price All-Pay Auctions and Best-Reply Matching Equilibria, *International Game Theory Review*, Vol 21, Issue 2, 40 pages, 2019, DOI 10.1142/S0219198919400097, open access version of the paper available on the univOAK platform <http://univoak.eu/islandora/object/islandora%3A115131>
- Almost common value auctions and discontinuous equilibria, *Annals of Operations Research*, Vol 225 Issue 1, 125-140, 2015, DOI 10.1007/s10479-013-1377-5, open access version of the paper available on the univOAK platform <http://univoak.eu/islandora/object/islandora:96871>
- Severe or gentle bankruptcy law: Which impact on investing and financing decisions? (with Régis Blazy, Bruno Deffains and Laurent Weill), *Economic Modelling*, Vol 34, 129-144, 2013.
- De l'amiante au chrysotile, une évolution stratégique de la désinformation (from asbestos to chrysotile, strategic changes to hide information), *Revue d'Economie Industrielle*, n°131, Third Trimester, 105-132, 2010.
- Evolutionary processes in signaling games : the impact of different learning schemes, *Advances in Dynamic Games and Applications*, Vol.6, autumn 2001.
- Induction projective et processus évolutionnaires discrets (forward induction and discrete evolutionary processes), *Revue Économique*, Vol.48, n°3, 697–706, 1997.
- Forward induction, evolutionary processes and behavior evolution, *Journal of Evolutionary Economics*, Vol.7, n°4, 415–433, 1997.
- John Nash, un visionnaire de l'économie, *Gazette des Mathématiciens*, Vol.65, 47–70, 1995.
- Evolutionary processes and networks, *Annales des Télécommunications*, Vol.50, n°2, 205–216, 1995.
- Evolution and forward induction in game theory, *Revue Internationale de Systémique*, Vol.7, n°5, 613–626, 1993.
- Information asymétrique et principes d'induction, *Revue Économique*, Vol.42, n°6, 1089–1110, 1991.
- Théorie des jeux et économie industrielle, *Revue d'Économie Industrielle*, n°45, 77–88, 1988.

Some Working Papers, SSRN

- A sad lesson from the hammer-nail game: strength is better than dexterity, Working Paper BETA, Université de Strasbourg, n°2023-31, 2023.
- The puzzling three-player beauty contest game: play 10 to win, Working Paper BETA, Université de Strasbourg, n°2023-16, 2023.
- Show your force in the hammer-nail game: a Nim game with incomplete information, Working Paper BETA, Université de Strasbourg, n°2023-05, 2023.
- Distance in beliefs and Individually-Consistent Sequential Equilibrium (avec Arnaud Wolff), Working Paper BETA, Université de Strasbourg, n°2022-37, 2022.

- Minimax regret in the 11-20 money-request game, Working Paper BETA, Université de Strasbourg, n°2021-48, 2021.
- Market exit and minimax regret, Working Paper BETA, University of Strasbourg, n°2020-29, 2020.
- Individually-Consistent Sequential Equilibrium (with Arnaud Wolff), Working paper BETA, University of Strasbourg, n°2019-39, 2019.
- Traveler's dilemma: how the value of the luggage influences behaviour Working Paper BETA, University of Strasbourg, n°2019-13, 2019.
- Equilibria in discrete and continuous second price all-pay auctions, convergence or yoyo phenomena, Working Paper BETA, University of Strasbourg, n°2017-14, 2017.
- Plea-bargaining, an ethical procedure, Social Science Research Network, SSRN – id638296.pdf, 2010.
- Plaider coupable, une procédure potentiellement éthique (plea bargaining, an ethical way to judge) BETA working paper n°2009-16, April 2009.
- Matching best replies in the centipede game, Social Science Research Network, SSRN –id 1161314.pdf, July 2008
- A note on second-order conditions in inequality constrained optimization, BETA working paper n°2008-19, July 2008.

Conferences, seminars (since 2017)

- 39èmes Journées de Microéconomie Appliquée, June,8-9, Strasbourg, 2023.
- 13th Conference of the French Experimental Economic Association (ASFEE), Montpellier, May, 25-26, 2023.
- Journée du BETA, Strasbourg, March 30, 2023.
- 17th European Meeting of Game Theory, SING 17, Padova, Italy, July 11-13, 2022.
- 70^{ème} congrès de l'AFSE (Association Française de Sciences Economiques), Dijon 14-16 juin, 2022
- 16th European Meeting of Game Theory, SING 16, Universidad de Granada, Spain, June 30-July 2, 2021.
- 37èmes Journées de Microéconomie Appliquée, Université de Savoie Mont Blanc, Annecy, June 3-4, 2021.
- Hommage à Jacques Lesourne : le Futur en Héritage, «Le système cognitif Lesournien, une pensée et des outils pour demain », Académie des Technologies, Paris, May 27, 2021.
- Journée du BETA, Strasbourg, April 13, 2021.
- Neurex Workshop, Neuroeconomics, Strasbourg, 13-14 June, 2019.
- Economic Seminar (Volkswirtschafts Kolloquium) « Equilibria in discrete and continuous second-price all-pay auctions, convergence or yoyo phenomena », Technische Universität Dortmund, Germany, October 8, 2018.
- Colloque Interdisciplinaire Transmission, Institut Universitaire de France et Université de Strasbourg “Transmettre l’information par un pigeon voyageur: pourquoi il est bon de se perdre en route - Sending information with a carrier pigeon : why it is good getting lost », Strasbourg, 28-30 mai 2018.
- Séminaire CRESE (Centre de Recherche sur les Stratégies Economiques), « Second-price all-pay auctions, how much money do players get or lose? » Université de Franche-Comté, Besançon, November 16, 2017.
- SING 13 (13th European Meeting on Game Theory), Paris (France), July 5-7, 2017.
- 66th Congress of the French Economic Association (AFSE), Nice (France), June 19-21, 2017.

- Cournot Seminar, University of Strasbourg, May 5, 2017.

Radio broadcasts and public conferences

- Ose la recherche, Journée de découverte de la recherche pour les collégiens, organisé par le Vaisseau, Centre de Découverte des Sciences et des Techniques à Strasbourg (avec le CNRS et l'Académie de Strasbourg), March 30, 2022.
- Ose la Recherche, une journée pour les apprentis scientifiques, Journée de découverte de la recherche pour les collégiens, Le Vaisseau, Strasbourg, February 12, 2019.
- Film projection (Olivier Peyon's movie "Comment j'ai détesté les maths?" (How I hated mathematics?)) and debate with Vincent Blanloeil, Clément Baillard and Thierry Burger-Helmchen, Fête de la Science, Cinéma UGC, Strasbourg, October 15, 2016.
- "Autour de la théorie des jeux et du cinéma" (Around Game Theory and Movies), University of Strasbourg April 19, 2016.
- Strasbourg, Round Table on the topic "games" with M.Belhaj Kacem (philosopher), C. Bucher (psychiatrist), P. Schmoll (psychosociologist and anthropologist), CAES CNRS, Strasbourg, December 10, 2014.
- Public conference on Game Theory, Benfeld (France), February 24, 2012.
- Public conference on Game Theory, Jardin des Sciences, Strasbourg, April 2006.
- Radio broadcast *Remue-Méninges* chaired by Sophie Martin, Radio France Bleue Alsace, April 10, 2006.
- Radio broadcast *Terrains Sensibles* chaired by Joseph Confavreux, Radio France Culture, March 29, 2006.

Other scientific activities

- Since 2021, member of the FERED (Fédération de Recherche en Environnement et Durabilité, *Federative Research in Environment and Sustainability*).
- Member of the GDR 2932 (research association): Théorie des jeux: modélisation mathématique et applications (game theory: mathematical modelling and applications).
- Expert in economics for the DSPT 7 Sciences of society (Ministry of research and new technologies) 2003-2008.
- Member of the editorial board of the journal e-JEMED (electronic-Journal of Evolutionary Modelling and Economic Dynamics) 1999 - 2006.
- Reviewer for journals : Annales d'Économie et de Statistique, electronic-Journal of Evolutionary Modelling and Economic Dynamics, Economic Theory, Games and Economic Behavior, International Game Theory Review, International Journal of Game Theory, International Journal of Industrial Organization, Journal of Economics and Management Strategy, Journal of Evolutionary Economics, Journal of Institutional and Theoretical Economics, Management International, Recherches Économiques de Louvain, Revue d'Economie Industrielle, Revue d'Economie Politique, Revue Économique, Revue Française d'Économie, Structural Change and Economic Dynamics, Theory and Decision.