

Jan. 2022

Olivier Gossner

Born 04/04/1969

Qualifications

- 2004 Habilitation à diriger les recherches
1996 Ph.D. Thesis, *Université Paris 6, summa cum laude*
1995 Agrégation de mathématiques
1989–1993 *Ecole Normale Supérieure, Mathematics, Paris*

Appointments

- 2014– Professor, Economics Department *École Polytechnique*
2008– Professor, Department of Mathematics, *London School of Economics*
1998– CNRS, currently Senior Researcher (DR1 rank)
2008–2014 Professor, *Paris School of Economics*
1996–1998 Fellow, *CORE*, Université Catholique de Louvain
1995–1996 Human Capital Mobility fellow, *Universitat Pompeu Fabra*

Visiting positions

- 2005–2008 *MEDS*, Kellogg School of Management, Northwestern University
2004–2005 *Institute of Advanced Studies*, Jerusalem

Publications

Articles in peer reviewed journals

- “High-sensitivity SARS-CoV-2 group testing by digital PCR among symptomatic patients in hospital settings”, A. Martin, A. Storto, Q. Le Hingrat, G. Collin, B. Andr. Mallory, R. Dangla, D. Descamps, B. Visseaux, O. Gossner, *Journal of Clinical Virology*, 50, 2021
- “Attention, please!”, with Jakub Steiner and Colin Stewart, *Econometrica*, 89: 1717-1751, 2021
- “Group Testing against Covid-19”, with Christian Gollier, *Covid Economics*, 2:32-42, 2020
- “Payoffs-Beliefs Duality and the Value of Information”, with Michel de Lara, *SIAM Journal on Optimization*, 30:1, 464-489
- “Preferences under ignorance”, with Christoph Kuzmics, *International Economic Review*, 60:241-257, 2019
- “On the Cost of Misperception: General Results and Behavioural Applications”, with Jakub Steiner, *Journal of Economic Theory*, 177:816-847, 2018

“A normalized value for information purchases”, with Antonio Cabrales and Roberto Serrano, *Journal of Economic Theory*, 170:266-288, 2017

“The complexity of interacting automata”, with Penélope Hernández and Ron Peretz *International Journal of Game Theory*, 45:461-496, 2016

“Finite-sample exact tests for linear regressions with bounded dependent variables”, with Karl Schlag, *Journal of Econometrics*, 177: 75-94, 2013

“Entropy and the value of information to investors”, with Antonio Cabrales and Roberto Serrano, *American Economic Review* 103: 360-377, 2013

“Performing best when it matters most: evidence from professional tennis”, with Julio Gonzalez-Dias and Brian Rogers, *Journal of Economic Behavior and Organizations* 84: 767-781, 2012

“Reasoning-based introspection”, with Elias Tsakas, *Theory and Decision* 73: 513-523, 2012

“Impermanent types and permanent reputations”, with Mehmet Ekmekci and Andrea Wilson, *Journal of Economic Theory* 147: 162–178, 2012

“Simple bounds on the value of a reputation”, *Econometrica* 79: 1627–1641, 2011

“Ability and Knowledge”, *Games and Economic Behavior* 69: 95–106, 2010

“When is the individually rational payoff in a repeated game equal to the minmax payoff?”, with Johannes Hörner, *Journal of Economic Theory* 145: 63-84, 2010

“Information independence and common knowledge”, with Ehud Kalai and Robert Weber, *Econometrica* 77: 1317–1328, 2009

“Informationally optimal correlation”, with Rida Laraki and Tristan Tomala, *Mathematical Programming B* 116: 147-172, 2009

“Entropy bounds on Bayesian learning”, with Tristan Tomala, *Journal of Mathematical Economics* 44: 24-32, 2008

“Secret correlation in repeated games with imperfect monitoring”, with Tristan Tomala, *Mathematics of Operations Research* 32: 413-424, 2007

“Optimal use of communication resources”, with Penélope Hernández and Abraham Neyman, *Econometrica* 74: 1603-1636, 2006

“Empirical distributions of beliefs under imperfect observation”, with Tristan Tomala, *Mathematics of Operations Research* 31: 13-30, 2006

“Informational cascades elicit private information”, with Nicolas Melissas, *International Economic Review* 47: 297-325, 2006

“Coordination through De Bruijn sequences”, with Penélope Hernández, *Operations Research Letters* 34: 17-21, 2006

“On the consequences of behavioural adaptations in the cost-benefits analysis of road safety measures”, with Pierre Picard, *Journal of Risk and Insurance* 72: 577-599, 2005

“Dynamiques de Communication”, with Penélope Hernández and Abraham Neyman *Revue Économique* 55: 509-516, 2004

“Positive value of information in games”, with Bruno Bassan, Marco Scarsini and Shmuel Zamir, *International Journal of Game Theory* 32: 17-31, 2003

“On the complexity of coordination”, with Penélope Hernández, *Mathematics of Operations Research* 28: 127-141, 2003

“Strategic learning in games with symmetric information”, with Nicolas Vieille, *Games and Economic Behavior* 42: 25-47, 2003

“How to play with a biased coin?”, with Nicolas Vieille, *Games and Economic Behavior* 41: 206-226, 2002

“Repeated communication through the ‘and’ mechanism”, with Nicolas Vieille, *International Journal of Game Theory* 30: 41-61, 2001

“Comparison of information structures”, *Games and Economic Behavior* 30: 44-63, 2000

“Secure protocols – or how communication generates correlation”, *Journal of Economic Theory* 83: 69-89, 1998

“Protocoles de communication robustes”, *Revue Économique* 48: 685-695, 1997

“Overlapping generations games with mixed strategies”, *Mathematics of Operations Research* 21: 477-486, 1996

“The folk theorem for finitely repeated games with mixed strategies”, *International Journal of Game Theory* 24 : 95-107, 1995

Chapters in collective works

“Repeated Games”, with Tristan Tomala in Meyers, Robert (Ed.) *Encyclopedia of Complexity and Systems Science*, Vol LXXX, Springer New York, 2009.

Work under review in academic journals

“A Markovian communication game”, resubmitted to *Mathematics of Operations Research*

“The robustness of incomplete codes in repeated interactions”

Work in progress

“Dynamic bank runs”, with Kyna Fong, Johannes Hörner, and Yuliy Sannikov

“Strategic type spaces”, with Rafael Veiel

“Robustness to incomplete information: a characterization”, with Rafael Veiel

Main teaching

2021– Complex Analysis, undergraduate course, London School of Economics

2019– Introduction à l’Économie, tronc commun, École polytechnique

2011– Game Theory, undergraduate course, London School of Economics

2011–2017 Dynamical Systems and Chaos Theory, undergraduate course, London School of Economics

2016– Microeconomics, M1, Master in Economics

2014– Advanced Game Theory, M2 Master in Economics

2014– Game Theory, École Polytechnique

2008-2010 Probability for Finance, undergraduate course, London School of Economics

2008-2012 Game Theory, undergraduate course, London School of Economics

- 2007–2014 Topics in Game Theory, Master Analyse and Politique Economiques, graduate course
- 2005–2008 Mathematical Methods for Management Decisions, M.B.A. Kellogg School of Management
- 2005–2008 Statistical Methods for Management Decisions, M.B.A. Kellogg School of Management
- 2004–2006 Decision Analysis and Game Theory, DEA Analyse and Politique Economiques, graduate course
- 2002–2005 Decision Theory and Game Theory, Ecole Nationale des Ponts and Chaussées
- 2002–2005 Information Economics, DEA Optimisation Jeux and Modélisation en Economie, graduate course,
- 2001 Microeconomic Theory, European Doctoral Program in Quantitative Economics, CORE, graduate course
- 2000 Strategic use of Information, DEA Mathématiques appliquées aux sciences Économiques, graduate course
- 2000–2001 Game theory and strategic thinking, Ecole des Mines de Nancy
- 1999 Information Economics, DEA Optimisation Jeux and Modélisation en Economie, graduate course
- 1999 Stochastic processes and applications, University Paris Dauphine