

# Jérôme Renault

**Professor in Mathematics, Toulouse School of Economics, University of Toulouse<sup>1</sup>**

- Editor-in-chief of the *International Journal of Game Theory*, from July 1st, 2023 (co-editors Wojciech Olszteswki, Rahul Savani and Bernhard Von Stengel).

Co-editor of the special issue of “Mathematics and Financial Economics” in celebration of Elyès Jouini 60th birthday, 2025.

- Co-chair in the ANITI Synergy Chair “Trust and Responsibility in Artificial Intelligence” (PIs: J. Bolte, J. Eynard, J-M Loubes and A. Smolin), 2024-2027.

- Member of: the TSE Research Council, the Mathematics and Statistics department Scientific Committee and the EUR CHESS Toulouse Graduate School “défis en économie et sciences sociales quantitatives”.

- Fellow of the Game Theory Society since 2023. Promoted first-class professor by the National University Council in 2013, exceptional class 1 by UT1 in 2018 and 2 in 2022. Member of the the improvement council of the Mathematics and Economic Decisions TSE master (2023), the Pedagogical and Scientific Council of ESPE Toulouse (Ecole Supérieure du Professorat et de l’Education, 2019-) and the scientific council of the School for advanced studies of Luchon (2014-).

Previously:

- Chair Holder “Game Theory and Artificial Intelligence” within the AI Toulouse Institute AN-ITI (with 2 associate researchers, 2 PhD students and 2 Post-docs), 2019-2023. Interactions between algorithms, Strategic Bandits, Computation of Nash equilibria, Strategic online selection problems, Strategic Queuing.

- Member of the ANR project MaSDOL (Mathematics of Stochastic and Deterministic Optimization for Deep Learning), PI S. Gadat, 2019-2023.

- Elected member of the Administration Council of the University of Toulouse (2019-2023) and of the council of the Game Theory Society (2017-2023).

- Director of the math department, University Toulouse 1 Capitole (~ 42 members among which 25 permanent), 2017-2020.

- Director of the CNRS Research Group 2932 JEMMA “Game Theory: Mathematical modeling and applications”, 2012-2015. With 29 teams and 110 members in France.

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<sup>1</sup>November 7, 2024. Contact: jerome.renault@tse-fr.eu, <http://sites.google.com/site/jrenaultsite/>, +33(0)5-61-12-85-68. Toulouse School of Economics, 1 Esplanade de l’Université, 31000 Toulouse, France.

- Associate Editor of *Mathematics of Operations Research*, 2013-2023, *Dynamic Games and Applications*, 2011-2020, and *Journal of Dynamic and Games*, 2012-2023.

- Member of: the TSE general recruiting committee (2012-2023), the TSE maths recruiting committee since 2012, the COST action GAMENET (European Cooperation in Science and Technology, 2017-2021), the national Math ANR funding committee (2019 & 2020), the maths Phd fellowships attribution committee (EDMITT doctoral school of Toulouse, 2020), the PGMO project “Stochastic Revision Games” 2016-2017, the CNRS PEPS project: Mathematical Models and Social Interactions (2015), the ARP consortium: “Mathematics and the complexity of the System Earth” (ARP Math-InTerre, 2013-2014), the TSE department committee (2010-12), the ANR project: “Jeudy” (Long time behavior for dynamic games in continuous and discrete time, 2011- 2015), the PEPS Interactions computer science project from CNRS “Properties of zero-sum *parity* stochastic games with imperfect observation” (Stochastic games and verification, 2011-12), the ANR ATLAS (from Applications to Theory in Learning and Adaptive Statistics, 2007-2010), the ANR Croyances (2007-2010), the Picasso Project “Strategic communication and networks” (Dauphine-Alicante 2006-2009) and the research network “Strategic Use of Information in Dynamic Games” (Paris- Tel-Aviv 2005-2008). Member of the National University Council (CNU 26th section, elected, 2005-2007).

- 2008-2009: Game Theory chair at Ecole Polytechnique, via the Decision Sciences group X-HEC-ENSAE. Member of the Economic Department and CMAP (Applied Maths Center) at Ecole Polytechnique.

- 2007-2008: Temporary position at the French research agency CNRS (maths section) within CEREMADE (Centre de Recherches en Mathématiques de la Décision) at University Paris-Dauphine.

- 1999-2008: Assistant professor in applied mathematics at University Paris-Dauphine and CEREMADE. 1998-1999: Temporary position (ATER) at Paris-Dauphine. 1995-1998: PhD student at CERMSEM, University Paris I.

## 1 Publications

Main fields of interest: game theory, optimization and control, economic theory, discrete-time stochastic processes and artificial intelligence.

### Publications:

1. Repeated Proximity Games, with T. Tomala, *International Journal of Game Theory*, 1998, vol. 27, pp. 539-559.
2. 2-player repeated games with lack of information on one side and state independent signalling. *Mathematics of Operations Research*, 2000, vol. 25, number 4, pp. 552-572.

3. 3-player repeated games with lack of information on one side. *International Journal of Game Theory*, 2001, vol. 30, pp. 221-246.
4. Learning sets in state dependent signalling game forms: a characterization. *Mathematics of Operations Research*, 2001, vol. 26, number 4, pp. 832-851.
5. Learning the state of nature in repeated games with incomplete information and signals (with T. Tomala). *Games and Economic Behavior*, 2004, vol. 47, pp. 124-156.
6. Ramsey-type results on singletons, co-singletons and monotone sequences in large collections of sets (with S. Gravier, F.Maffray et N. Trotignon, laboratoire Leibnitz, INPG, Grenoble). *European Journal of Combinatorics*, 2004, vol. 25, pp.719-734.
7. Communication equilibria in repeated games with imperfect monitoring (with T. Tomala). *Games and Economic Behavior*, 2004, vol. 49, pp. 313-344.
8. View-obstruction: A shorter proof for 6 lonely runners. *Discrete Mathematics*, 2004, vol. 287, pp. 93-101.
9. A folk theorem for minority games (with S. Scarlatti, Pescara, and M. Scarsini, Turin). *Games and Economic Behavior*, 2005, vol. 53, 208-230.
10. “Théorie des jeux: le prix Nobel pour les travaux de R.J. Aumann”, with F. Forges, S. Sorin et N. Vieille. *Matapli*, bulletin of the French applied maths society, 79, January 2006, 47-70.
11. The value of Markov chain games with lack of information on one side. *Mathematics of Operations Research*, 2006, vol. 31, pp. 490-512.
12. A minority game with bounded recall: with M. Scarsini et T. Tomala. *Mathematics of Operations Research*, 2007, vol. 32, No 4, pp. 873–889.
13. Probabilistic reliability and privacy of communication using multicast in general neighbor networks: with T. Tomala. *Journal of Cryptology*, vol. 21, No 2, pp. 250-279, 2008.
14. Discounted and Finitely Repeated Minority Games with Public Signals: with M. Scarsini and S. Scarlatti. *Mathematical Social Sciences*, vol. 56, issue 1, pp.44–74, 2008.
15. Playing off-line games with bounded rationality: with M. Scarsini et T. Tomala. *Mathematical Social Sciences*, vol. 56, issue 2, pp.207–223, 2008.
16. “Repeated games with incomplete information”, chapter of the *Encyclopedia of Complexity & System Science*, Springer 2009. <http://sites.google.com/site/jrenaultsite/publications>. Editor-in-chief: Meyers, Robert A. ISBN: 978-0-387-75888-6.
17. Uniform value in Dynamic Programming. *Journal of the European Mathematical Society*, vol.13, pp.309–330, 2011.

18. General Properties of Long-Run Supergames, with T. Tomala. *Dynamic Games and Applications*: vol. 1, Issue 2, pp. 319-350, 2011.
19. On the existence of a limit value in some non expansive optimal control problems, with M. Quincampoix (U. Brest). *SIAM Journal on Control and Optimization* 2011, vol. 49, pp. 2118-2132.
20. The value of repeated games with an informed controller. *Mathematics of Operations Research*, 37: 154–179, 2012.
21. Dynamic Sender-Receiver Games, with E. Solan (U. Tel-Aviv) and N. Vieille (HEC). *Journal of Economic Theory*, vol. 148, p.502-534, 2013.
22. Secure message transmission on directed networks, with L. Renou (University of Leicester) and T. Tomala (HEC). *Games and Economic Behavior*, vol. 85, p.1-18, 2014.
23. General limit value in Dynamic Programming. *Journal of Dynamics and Games*, vol. 1, Number 3, p. 471-484, 2014.
24. The value of Markov chain games with lack of information on both sides. with F. Gensbittel, *Mathematics of Operations Research* 40(4), pp. 820-841, 2015.
25. On Representation Formulas for Long Run Averaging Optimal Control Problem, with R Buckdahn and M. Quincampoix. *Journal of Differential Equations* 259, 5554-5581, 2015.
26. On values of repeated games with signals with H. Gimbert , S. Sorin, X. Venel and W. Zielonka. *Annals of Applied Probability*, vol. 26, No 1, 402-424, 2016.
27. Limit Value for Optimal Control with general means, with X. Li and M. Quincampoix. *Discrete and Continuous Dynamical System - A*, vol. 36 number 4, pp.2113-2132, 2016.
28. The repairman problem revisited, with C. Crampes. *Annals of Economics and Statistics* 121-122, 2016, pp. 7-24.
29. Uniform Folk Theorems in Repeated Anonymous Random Matching Games, with Joyee Deb, NYU and Julio Gonzalez-Diaz, U. Santiago de Compostela. *Games and Economic Behavior*, vol. 100, 1–23, 2016.
30. A distance for probability spaces, and long-term values in Markov Decision Processes and Repeated Games. With X. Venel (U. Paris 1), *Mathematics of Operations Research* 42 (2), 349–376, 2017.
31. Optimal Dynamic Information Provision, with E. Solan and N. Vieille. *Games and Economic Behavior*, vol.104, 329-349, 2017.
32. Zero-sum revision games, with F. Gensbittel, S. Lovo et T. Tomala. *Games and Economic Behavior*, vol. 108 Special Issue in Honor of Lloyd Shapley, 504-522, 2018.

33. Repeated Games with Incomplete Information. In: Meyers R. (eds) Encyclopedia of Complexity and Systems Science. Springer, Berlin, Heidelberg, 2018. (augmented version of (16)).
34. How many markets for wholesale electricity when supply is partially flexible ? with C. Crampes. Energy Economics, vol 81, p 465-478, 2019.
35. Limit Equilibrium Payoffs in Stochastic Games, with B. Ziliotto. Mathematics of Operations Research 45(3), p. 889-895, 2020.
36. Representation formulas for limit values of long run stochastic optimal controls, with R. Buckdahn, J.Li et M. Quincampoix. SIAM journal of Control and Optimization 58 (4), p.1846-1873, 2020.
37. Acyclic gambling games, with R. Laraki. Mathematics of Operations Research 45(4), 2020, p.1237-1257.
38. Hidden Stochastic Games and Limit Equilibrium Payoffs, with B. Ziliotto. Games and Economic Behavior, (124), p.122-139, 2020.
39. Strategic information transmission with sender's approval, with F. Forges. International journal of Game Theory, 50, 475-502, 2021.
40. Long information design, with F. Koessler, M. Laclau and T. Tomala. Theoretical Economics 17, 883-927, 2022.
41. Value-Based distance between the information structures, with F. Gensbittel and M. Peski. Theoretical Economics 17, p. 1225-1267, 2022.
42. Competition and Recall in Selection Problems, with F. Gensbittel and D. Pizarro, Dynamic Games and Applications, vol. 14, p.806-845, 2024.
43. Splitting Games over finite sets, with F. Koessler, M. Laclau and T. Tomala. Mathematical Programming, vol.203, p.477-498, 2024.
44. La Théorie des Jeux, in Dictionnaire des Sciences du Jeu, Editions Eres, G. Brougère and E. Savignac Eds, p. 350-357, 2024.

**Books:**

45. "Théorie des Jeux, Introduction à la théorie des jeux répétés" with R. Laraki et T. Tomala. Introduction to repeated games. Editions de l'Ecole Polytechnique, journées X-UPS 2006, 152 pages, ISBN : 978-2-7302-1366-0.
46. "Bases mathématiques de la théorie des jeux", textbook with exercises, 186 pages, Editions de l'Ecole Polytechnique 2013, ISBN : 978-2-7302-1611-1.

47. Mathematical Foundations of Game Theory, with R. Laraki and S. Sorin. Universitext book series, 229 p., Springer 2019. Polish translation, 260 pages : Teoria gier Podstawy matematyczne, Springer 2022.

**Proceedings:**

48. Strategic Transmission of Information: a characterization. Proceedings of the : 8ème International symposium on dynamic games and applications, p.513-522, 1998.
49. Transmission stratégique de l'information: une caractérisation (in French). "Actes des sixièmes journées du groupe MODE", p.204-208, L.3.M.A., Université de Poitiers, Atlantique 1999. ISBN 2-911320-10-7.
50. Value of repeated Markov chain games with lack of information on one side. Proceedings Volume of Game Theory and Applications (conference satellite ICM 2002), ISBN 7-5436-1301-8, p.653-658.
51. Co-editor, with D. Ramsey, of the Annals of the International Society of Dynamic Games Vol 17: Games of Conflict, Evolutionary Games, Economic Games, and Games Involving Common Interest, Birkhauser. ISBN 978-3-030-56533-6, 346 pages, 2020.
52. Competition and Recall in Selection Problems, with F. Gensbittel and D. Pizarro. SAGT 2022.

**Prepublications:**

53. A Folk Theorem for Finitely Repeated Games with Public Monitoring, with J. Hörner, 2023.
54. Assistance to electricity consumers with price misperception, with C. Crampes, 2024.
55. Convergence of Optimistic Gradient Descent Ascent in Zero-Sum and General-Sum Bilinear Games, with E. de Montbrun, 2024.
56. Games played by exponential weights algorithms, with M. D'Andrea and F. Gensbittel, 2024.

**In progress:**

- Assistance to electricity consumers with price misperception, with C. Crampes.
- Strategic Experimentation with privately observed payoffs, with E. Solan and N. Vieille.
- Multi-Servers and Congestion Games, with G. Fournier, M. Scarsini and B. Ziliotto.
- How to fairly share items arriving sequentially? with F. Gensbittel and D. Pizarro.
- Perfect Nash equilibria via Gauge functions and Wasserstein distances, with A. Blanchet and F. Lutzeler.
- Competing Mechanisms, with A. Attar.

### Miscellaneous:

- A tutorial on zero-sum stochastic games, arXiv:1905.06577, 2019.
- Co-editor and preface: Special Issue in Honor of the 60th birthday of Sylvain Sorin. With J. Hofbauer and R. Laraki, *Journal of Dynamics and Games*, Vol. 1, Number 3, p. i-iv, 2014.
- On the works of Lloyd Shapley (Sur les travaux de Lloyd Shapley), *TSE Students Magazine*, 2013.
- Habilitation for research direction: “Autour des jeux répétés” (optimisation et contrôle de processus dans les interactions dynamiques, et quelques problèmes combinatoires). Université Paris-Dauphine, November 2007, 108 pages.
- Research document: Repeated Games with Public Signal and Bounded Recall: with M. Scarsini et T. Tomala. Ceremade DP 2006-8.
- Participation in the seminar Oiko NOMIA - Blaise Pascal (1996-2000, ENS Ulm, organized by G. Debreu), and in the collective Oiko NOMIA project, devoted to the study of mathematical models of social and economic interactions (Université Paris I). Redaction of 3 unpublished chapters: Zero-sum games (12 pages), Refinements of Nash Equilibria for Strategic Games (12 pages), Games in extensive form (the finite case) (25 pages).

See <https://sites.google.com/site/jrenaultsite/publications>

## 2 Animation of research

Toulouse School of Economics: member of the Mathematics and Statistics department. Creation and direction of the group “Decision mathematics” in 2010.

- Referee for: the international journals *Mathematics of Operations Research (MOR)*, *SIAM Journal on Control and Optimization (SICON)*, *Mathematical Programming*, *Econometrica (ECTA)*, *American Economic Review (AER)*, *Theoretical Economics*, *Journal of Economic Theory (JET)*, *Journal of Mathematical Economics (JME)*, *Games and Economic Behaviour (GEB)*, *Bulletin of the Brazilian Mathematical Society*, *Journal of Mathematical Analysis and Applications (JMAA)*, *Bulletin of the London Mathematical Society*, *IEEE Transactions on Automatic Control (IEEE-TAC)*, *Journal of Computational and Applied Mathematics (JCAM)*, *International Journal of Game Theory (IJGT)*, *Mathematical Social Sciences*, *Journal of Applied Probability*, *RAIRO - Operations Research*, *The Review of Economic Studies (RESTUD)*, *Order*, *Information Processing Letters*, *Journal of Systems and Software (JSS)*, *Acta et Commentationes*, *Comptes Rendus de l'Académie des Sciences*, *Technique et Science Informatiques*, *Dynamic Games and Applications*. Also Reviewer for *Zentralblatt Math* from 2004 to 2010. Referee for the conference “The Economics of Energy and Climate Change” TSE 2015, for the 24th and 25th EC (Economics and Computation) Conference 2023, 2024.

- Expert for the “projet blanc” ANR in 2009, for the WWTF (Wiener Wissenschafts, Forschungs und Technologiefonds, Austria) in 2009, for the Israel Science Foundation in 2011, 2015, 2018, 2023, for HEC in 2012, for the Chilean National Science and Technology Commission 2018, for ERC 2019.

- Member of the GDR (Research groups of CNRS) MOA (Mathematics of Optimization and Application) since 2009, and JEMMA since 2008. Member of the board of the MODE (Mathematics of Optimization and Decision) group of the french SMAI (Society for Applied and Industrial Mathematics), 2008-2013. Member of the PGM0 PhD prize committee 2017 (“Programme Gaspard Monge pour l’optimisation, la recherche opérationnelle et leurs interactions avec les sciences des données”).

### PhD supervision

- Xavier Venel, TSE, 2008-2012. Obtained the Dodu prize at the SMAI MODE 2012 Congress. Now associate professor at LUISS, Roma, on leave from Maître de Conférences at University Paris 1.

- Bruno Ziliotto, TSE, 2012-2015. For the thesis B. Ziliotto has been awarded the PGM0 Prize 2016, the Ozenne Prize 2016 of the Toulouse Academy, and the Lloyd Shapley Lecture at the Fifth World Congress of the Game Theory Society, Maastricht 2016: “The Lloyd Shapley Lecture is given at each World Congress of the Game Theory Society by a distinguished game theorist aged 40 or under at the time of the Lecture.” Now a CNRS researcher at TSE-IMT.

- Sylvain Gibaud, UT3, 2014-2017. Co-supervised with Laurent Miclo (initially with Xavier Bressaud). Now “professeur agrégé” in high school.

- Tristan Garrec, TSE, 2015-2019. PGM0 Prize 2020. Now founder and CTO of the startup Bifrost for decision-making in reinsurance.

- Maurizio d’Andrea, ANITI-TSE, 2020-2023: Learning Algorithms in Game-Theoretic Contexts. Co-supervised with F. Gensbittel. Now post-doc at LUISS, Roma.

- Etienne de Montbrun, ANITI-TSE, 2020-2023: Game Theory and Online Learning: Gradient Descent Ascent, Optimization, Approximation and Certification. Co-Supervised with S. Gerchinovitz. Now “professeur agrégé” in high school.

- Member of the PhD Thesis Committees of Paul Jourdan, INRA (2020-23), Nhat Thang LE, TSE (2022-), Enrico Mattia Salonia (2020-) and Michele Bisceglia (2020-).

**Post-doc supervision:** Zibo Xu, HEC and TSE, March-June 2014 (now assistant professor, SUTD, Singapore); Tommaso Cesari, with S. Gerchinovitz, 2019-2021: Bandits, Games and Deep Learning, now assistant professor at Ottawa; Dana Pizarro, with F. Gensbittel, 2020-2022: Posted-price mechanisms, dynamic pricing and multi-players prophet inequalities, now assistant professor at Toulouse Business School.

**Jury member:** 6 HDR (habilitation as research director, maths 4, computer science 2) and 16 PhD thesis (maths 10, economics 3, computer science 2 and transportation science 1).

HDR: Bruno Ziliotto (2022, Paris-Dauphine, Jeux en temps discret et applications aux équations d’Hamilton-Jacobi), Youcef Askoura (2021, Paris 1, Contribution à l’étude des fonctions vectorielles et à quelques problèmes mathématiques issus de la théorie des jeux et de l’économie), Miquel Oliu-Barton



(2020, Paris Dauphine : A journey to the land of stochastic games, referee), Panayotis Mertikopoulos (2019, LIG Grenoble : Online optimization and learning in games: theory and applications), Thang Kim Nguyen (2019, Sorbonne Université, Primal-Dual Approaches in Online Algorithms, Algorithmic Game Theory and Online Learning), Guillaume Vigeral (2017, Paris-Dauphine: Asymptotic problems in zero-sum repeated games ; structure of the set of Nash equilibria in finite games).

PhD: Luc Attia (2024, Paris-Dauphine, referee), Eric Munday (2023, University of Edinburgh, Computer Science, External Examiner), Aditya Aradhya (2020, Maastricht University, Economics), Andrés Salamanca (2017, TSE Economics: Incentives in Cooperation and Communication), Antoine Hochart (2016, CMAP Ecole Polytechnique, referee), Xiaoxi Li (2015, Paris 6, Contributions à l'étude des propriétés asymptotiques en contrôle optimal et en jeux répétés), Miquel Oliu-Barton (2013, Paris 6, Jeux dynamiques à information incomplète en temps discret et continu), Nicolas Wagner (2012, Ecole Nationale des Ponts et Chaussées, Doctoral school "Ville, Transports et Territoires": Equilibre dynamique sur un réseau de transport: propriétés mathématiques et applications économiques, referee), Mario Bravo (2012, Paris 6, Dynamiques d'apprentissage et d'évolution en théorie des jeux), Cheng Wan (2012, Paris 6, Contributions to Congestion Game Theory and Evolutionary Game Theory), Vianney Perchet (2010, Paris 6, Approchabilité, calibration et regret dans les jeux à observations partielles), Vassili Vergopoulos (2010 TSE Economics: Essays on non-consequentialist dynamic choice under ambiguity, Jury president), Aimé Lachapelle (2010, Paris-Dauphine, Modélisation mathématique de la congestion), Guillaume Vigeral (2009, Paris 6, Asymptotic properties of zero-sum repeated games), Nguyen Kim Thang (2009, Ecole Polytechnique, Computer Science: Pure Equilibria: Existence and Inefficiency & Online Auction), Galit Ashkenazi (2008, Tel-Aviv University, Topics in Repeated Discounted Games with Imperfect Monitoring).

**Conference and seminar organizations:** 25 research events so far, including: 3 seminar series, the workshop on Learning in Games, University Paul Sabatier Toulouse (2024), the 6th Workshop on Stochastic Methods in Game Theory, with M. Scarsini in Erice (2017), the Game Theory international conference, Stony Brook ~ 200 participants (2016), the international conference "Games Toulouse 2011" ~ 130 participants, and the co-chairing of the scientific committee of the 18th symposium of the International Society of Dynamic Games, Grenoble 2018. More precisely:

Co-organizer, with S. Gerchinovitz, J. Nair, B. Prabhu and B. Pradelski, of the Workshop on Learning in Games, University Paul Sabatier Toulouse, July 1-3, 2024.

Member of the scientific committee of the 20th International Symposium on Dynamic Games and Applications, Valladolid July 2024, and of the French German Spanish Optimization conference, Gijon June 2024.

Co-chair (with David Ramsey, U. Limerick) of the scientific committee of the 18th symposium of the International Society of Dynamic Games, Grenoble July 9-12, 2018.

Organization, with M. Scarsini and R. Smorodinsky, of the 6th Workshop on Stochastic Methods in Game Theory. Erice (Sicily), May 5-13, 2017. 52 speakers.

Chairman of a session at the "8ème journée Franco-Chiliennes d'Optimisation", IMT Toulouse July 5-7, 2017.

Corresponding member (UT1-TSE) of the organization committee for the 20th World Congress of

the International Federation of Automatic Control, Toulouse, IFAC 2017.

Organization, with P. Hernández, of the Game Theory international conference, Stony Brook, July 2016, ~ 200 participants.

Member of the organizing committee for the applied maths SMAI-MODE 2016 in Toulouse, March 23-25.

Co-organizer (with O. Gossner, M. Laclau, V. Perchet, T. Tomala, W. Zielonka) of the “French Symposium on Game Theory”, 26-30 mai 2015 at Université Paris VII.

Member of the Program Committee of the 16th International Symposium on Dynamic Games and Applications. Dynamic Games Society, Amsterdam July 9-12, 2014. Organisateur de la session: Continuous Time Games (speakers: J. Steg, Z. Xu et C. Bobtcheff).

Co-organizer of the international conference in Game Theory “MAGTA 2014”, June 30-July 4, Roscoff 2014.

Member of the scientific committee for the applied maths SMAI-MODE 2014 congress in Rennes, 26-28 mars 2014. Organizer of 2 sessions “Games and Economics”.

Co-organizer of the conference “Games and Strategy in Paris” (June 11-13, 2012, Sylvain Sorin 60’s birthday).

Cofounder of the Optimization seminar SPOT “Séminaire Pluridisciplinaire d’Optimisation de Toulouse”, 2012, UT1-TSE-CERFACS-ENSEEIH-T-LAAS-CNRS-ISAIE-IRIT-ENSEEIH-T-ENAC-INSAT-IMT.

Member of the scientific committee for the applied maths SMAI-MODE 2012 congress in Dijon (28-30 mars 2012).

Main organizer of the international conference on game theory “Games Toulouse 2011”, September 12-16, 2011 at TSE. 50 invited speakers, around 130 participants. Other organizers: R. Laraki (X), M. Quincampoix (Brest), S. Sorin (Paris 6), T. Tomala (HEC) and X. Venel (PhD, Toulouse 1).

Member of the organizing committee of the 15th French-German optimization conference (with invited country Austria), Toulouse September 19-23, 155 participants, 2011. Member of the International Program Committee of the international conference “Applications of Game Theory, Policies and Decisions”, Hyderabad/Jaipur (Inde), 12-14 December 2011.

Main organizer of the Workshop “Advances in Game Theory”, Ecole Polytechnique, 21-22 septembre 2009, with R. Laraki and T. Tomala. Invited speakers: J. Flesch (Maastricht Univ.), J. Duparc (U. Lausanne), M. Babaioff (Microsoft Research), A. Neyman (Hebrew U. Jerusalem).

Organizer, with Adrien Blanchet, of the MAD seminar “Mathématiques de la décision” (Decision mathematics) at TSE (January 2010-June 2011).

Organizer of 2 Game Theory sessions in the 2010 conference of the French Operations Research society, ROADEF. February 2010, Manufacture des Tabacs, UT1 Capitole.

Organizer of the mini-symposium “Jeux Dynamiques” (Dynamic Games) at the SMAI congress on 2009, May 25, with invited speakers P. Cardaliaguet (Brest), B. de Meyer (Paris 1) et G. Vigeral (Paris 6).

Organizer of the 2008-2009 working group/seminar “Advances in Game Theory” at Ecole Polytechnique every friday morning: <http://sites.google.com/site/jrenaultsite/advances-in-game-theory>. 29 Fridays, 32 speakers with 2 hours seminars:

Co-organizer (2000-2003, together with O. Gossner, Paris X, N. Vieille, Hec and X, and D. Rosen-

berg, Paris XIII then R. Laraki, X-CNRS) of the Game Theory seminar “Théorie des Jeux et Applications” (now “Paris Game Theory Seminar”) of the Institute Henri Poincaré.

### 3 Conferences - Seminars - Visits (since 2009-2010)

*Invited talks in person abroad* are in italic.

2024-25:

Workshop in honor of Françoise Forges, Paris Dauphine, scheduled December 16-17, 2024

*Micro-Theory seminar, Glasgow University*, scheduled December 3, 2024.

2023-24:

Games and Artificial Intelligence Multidisciplinary Workshop, Metz, June 27-28, 2024.

Mediterranean Game Theory Symposium, Marseille, May 28-31, 2024.

Dynamic Games Workshop, Fréjus, May 26-28, 2024.

*Game Theory Days*, UM6P, Rabat Maroc, January 22-24, 2024.

ANITI Days, November 17, 2023, ENSEEIHT Toulouse.

2022-23:

Alpine Game Theory Symposium, June 27-30, Grenoble.

Workshop on Optimization and machine Learning, June 26-27, Toulouse.

Workshop “Behavior and Strategies in Information Design and Communication”, HEC Paris, May 25-26.

Seminar, Wuhan University, April 20, 2023. (online)

One World Game Theory Seminar, February 6, 2023. (online)

Economics Micro Theory seminar, Carnegie Mellon University/Pitt, November 17, 2022. (online)

2021-22:

*Stochastic Games : Theory and Computational Aspects*. Stony Brook University, July 22-23, 2022.

Signaling in Social Interactions: a Multidisciplinary Approach: 8-9 June 2022, Université Paris 2.

Journées SMAI-MODE 2022, June 1-3, Limoges.

Workshop ”Dynamic Games” in Quimper, October 19-22, 2021.

MADS seminar, TSE, September 16, 2021.

2020-21:

Paris Game Theory Seminar, June 14, 2021. Online

Relax workshop on Games, Chennai, February 1-4, 2021. Online

University Paris 1 Theory seminar, October 19, 2020. In person.

2019-2020:

One World Game Theory Seminar, June 29, 2020 (online)

(*Visit to Wuhan University, March 18-31, 2020, invited by Xiaoxi Li.* cancelled due to Covid-19)

(*Relax workshop on Games, Chennai March 16-19, 2020.* cancelled due to Covid-19)

*Visit to Roma Tor Vergata University, teaching “Games and Information”, 12 hours, February 2-8, 2020.*

Workshop “Dynamics and Information”, Tel-Aviv, January 29-30, 2020.

Workshop “Dynamic games, discrete time, continuous time”, Fréjus, October 8-10, 2019.

2018-2019:

Workshop “Information Design and Splitting Games”, Paris 1 June 17-19, 2019.

Summer School PANORISK, Nantes, June 13-14, 2019.

*Micro-Theory seminar, Glasgow University, February 5, 2019.*

2017-2018:

Co-chair ISDG Symposium, Grenoble July 9-12, 2018.

Paris Symposium on Game Theory, invited speaker, June 11-15 2018.

*Workshop Games, Dynamics and Optimization 2018, Vienna March 13-15, 2018.*

Economic Theory seminar, TSE March 2018.

Workshop “Jeux Dynamiques”, Fréjus October 17-19, 2017.

Workshop “Stochastic control, BSDEs and new developments”, Roscoff September 11-15, 2017.

2016-2017:

*Plenary speaker, 28th Stony Brook International Conference on Game Theory, in honor of Pradeep Dubey and Yair Tauman, 17-21 Juillet 2017.*

*Plenary speaker, 11th Workshop of the International Society of Dynamic Games, Banach Center, Varsovie 13-15 Juillet 2017.*

Organizer, with M. Scarsini (Luiss-Roma) and R. Smorodinsky (Technion- Haifa), of the 6th Workshop on Stochastic Methods in Game Theory, Erice (Sicily) May 5-13, 2017.

*Seminar, Quantitative Economics Department, Maastricht University, 16-03-2017.*

Paris Game Theory seminar, November 28, 2016.

Roy seminar, Paris School of Economics, October 17, 2016.

2015-2016:

Organization, with P. Hernández, of the 27th Stony Brook International Conference, July 17-21, 2016.

*Workshop “Competition and Incentives”, Humboldt University, Berlin, June 9-10, 2016.*

*Victor Domansky Memorial conference, St Petersburg, May 23-24, 2016.*

*Workshop KMT (Kolmogorov meets Turing), 18 mai 2016, LUISS Rome.*

*Visit at LUISS, Roma. Invited Professor, May 9 - June 3 2016.*

Workshop Collective behaviour in the big data area: can we enhance collective intelligence in human groups ?, IAST-TSE April 14,15, 2016.

*Seminar at London School of Economics, March 17 2016.*

Seminar LAMPS (Laboratoire de Mathématiques et de Physique), Université de Perpignan, 4 Février 2016.

Workshop Geometry, Evolution and Learning in Games, Luchon January 4-8, 2016.

*Workshop and Tutorial on Stochastic Games, NUS and Institute for Mathematical Sciences, Singapore. November 30-December 4, 2015.*

Workshop on “Incomplete Information : Repeated Games and Cheap-Talk”, Paris School of Economics, November 5-6, 2015.

*Workshop “Networks, Network Games, Game Theory”, Univ. Valencia, November 2-3, 2015.*

2014-2015:

*Conference in Honor of Abraham Neyman, The Hebrew University of Jerusalem, June 16-19, 2015.*

*Seminar at LUISS, Roma: Department of Economics and Finance. April 29, 2015.*

*The Second Singapore Joint Economic Theory Workshop, National University of Singapore and SUTD, April 14, 2015.*

*Seminar at SUTD, Singapore University of Technology and Design, department Engineering Systems and Design: April 13, 2015.*

Workshop “Strategic Aspect of Information in Games and Financial Markets”. February 6, 2015, Université Paris-Dauphine.

Paris Game Theory Seminar, November 17, 2014.

*Workshop “Optimisation et processus dynamiques en apprentissage dans les problèmes inverses”, Sestri Levante (Italie), September 8-12 2014.*

2013-2014:

Conference “Energy Industry at a Crossroads: Preparing the low-carbon future”, TIGER Forum TSE 6 Juin 2014: Discutant.

Avignon-Montpellier seminar in Optimisation, Contrôle et Dynamique (SAMOCOD): June 3, 2014, Montpellier.

Game Theory seminar of l’Institut de Recherche en Informatique de Toulouse (IRIT), March 17, 2014.

*Third International Conference on Dynamics, Games and Science. University of Porto, February 17-21, 2014.*

Workshop “Mathematical Modelling in Economics”: Game Theory and Economics: an introduction. Toulouse School of Economics, December 18, 2013.

Workshop “Jeux répétés, temps discret, temps continu”, Roscoff October 21-23 2013.

*Plenary speaker of the 16th French German Polish Optimization Congress. September 23-27, 2013, Krakow. <http://www.fgp13.agh.edu.pl/>*

*4th Workshop on Stochastic methods in Game Theory, International School of Mathematics G. Stampacchia, Erice Italie 6-15 septembre 2013.*

2012-2013:

*Workshop Stochastic Dynamic Games with Applications in Economics and Finance, Hausdorff Research Institute for Mathematics, Bonn 17-20 Juin 2013.*

*Seminars at the Center for Rationality, Jerusalem June 2 2013 et at the math department de Tel-Aviv University, June 4 2013.*

Economic Department Seminar, Université of Caen, May 13, 2013.

Conference in the memory of Jean-François Mertens, IHP Paris January 7, 2013.

*Summer school and workshop on Dynamic Games and Applications, December 19-21 2012, Valparaiso, Center for Mathematical Modeling, Chile.*

*Economic Department Seminar, Leicester University, November 28, 2012.*

Workshop “Jeux répétés, jeux différentiels”, Foljuif October 10-12, 2013.

2011-2012:

*Invited speaker (plenary speaker) at the 23rd International Conference of Game Theory at Stony Brook, USA, July 15-19 July 2012.*

*Invited in the session Dynamics and Games of the 9th AIMS conference on Dynamical Systems, Differential Equations and Applications, Orlando. July 1-5, 2012.*

*Invited talk, Quantitative Economics seminar, Maastricht University, 21-06-2012.*

Invited talk, colloquium of the IMT, Maths Institute of Toulouse, 15-06-2012.

Participant in the annual meeting of the research group GDR MOA (Maths of Optimization and Applications), June 4-7 2012, Guadeloupe.

Invited talk, seminar of the MIP team (Maths for Physics and Industry) of IMT, University Toulouse 3, 22-05-2012.

*Invited talk, Institute of Mathematical Economics seminar, Bielefeld Germany 07-02-2012.*

Invited speaker at the international conference “Optimization, Games, and Dynamics”, IHP Paris, 28-29 November 2011. <http://www.ann.jussieu.fr/plc/ihp2011.html>  
2010-2011:

*Invited speaker, Tel-Aviv international Workshop on Game Theory, June 20-23 2011 (organizers: E. Solan and E. Lehrer)*

Invited talk, Theory seminar, Paris School of Economics - University Paris I, March 18, 2011.

Seminar at LPT (Theoretical Physics Laboratory), University Toulouse 3, June 7, 2011.

*Invited seminar, Bocconi University, Milan May 10 2011.*

*Invited speaker at the Workshop “Stochastic methods in Game Theory”, Erice (Sicile), September 6-8 2010.*

2009-2010:

Presentation in the Stony Brook international conference, July 12-16 2010.

Speaker at the summer school “Transmission d’information, jeux répétés, apprentissage” (Information transmission, repeated games and learning) of the GDR 2932 “Théorie des Jeux: Modélisation mathématique et applications”, Aussois, 31 mai-4 juin 2010.

Speaker at the probability seminar, IMT Toulouse Maths Institute, April 6, 2010.

Invited speaker (plenary session) in the 2010 conference of the MODE group (mathematics of optimization and decision) of SMAI, Limoges, March 24-26 2010.

Participation as invited speaker in the workshops:

- “*Structural aspects of rationality*”, December 13-14 2009, theoretical computer science, Kanpur (Inde).

- “Mechanism Design, Game Theory and Political Economy: In Honor of Roger Myerson”, December 7-8, 2009, Toulouse School of Economics.

3 introductory seminars on Game Theory at TSE: November 5, 12 and 26, 2009.

Visit at LABRI, Laboratoire Bordelais de Recherche en Informatique, may 10-11 2010: collaborations with Hugo Gimbert, Sylvain Sorin, Wieslaw Zielonka, Xavier Vienel, Youssouf Oualhadj. Occasional guest in the team Combinatoire et Optimisation, Université Paris 6, Spring 2010, collaborations with Rida Laraki et Sylvain Sorin.

## 4 Teaching

2017-2020: Head of the math department of Université Toulouse 1 Capitole.

Professor at Université Toulouse 1 Capitole (2009-2023) then at the GE TSE (2024-). Formerly Maître de conférences at Université Paris-Dauphine in applied mathematics since 1999. Temporary position ATER in Paris-Dauphine in 98-99. Vacations (95-96) then “moniteur” (96-98), then vacations (2002-2003 to 2005-2006) at Paris I (UFR Mathématiques et Informatique). Secondary teaching at ENSAE (1996-97 then 1999-2002), at Ecole Polytechnique (2007-2009), at Université Paris 6 (2009-2012), at University of Rome Tor Vergata (2020) and at ISAE-SUPAERO (2021-2024).

Member of the development board of the Master 1 Econometrics-Statistics of TSE - UT1C, 2016-2020.

Organizer of the Pi-Day (workshop with 15mn talks) at the maths department of University Toulouse 1, March 14, 2014.

Conference, with M. Le Breton and Y. He, on the 2012 Economics Nobel prizes L. Shapley et A. Roth. November 22, 2012, Toulouse School of Economics.

Spring 2012: Member of the prospection committee (4 people, leader H. Cremer) for the position of Director of the School Toulouse School of Economics, won by J-Philippe Lesne.

2000-2003: In charge, together with S. Roverato, of the DEUG MASS (1st and 2nd year students in applied maths and social sciences) at Université Paris-Dauphine.

**Lecture notes:** (available at <http://sites.google.com/site/jrenaultsite/enseignement>)

- Mathematical Game Theory 1: zero-sum games, M1 MED (Mathematics and Economic Decisions) TSE, 37 pages, 2024.

- Introduction à la Théorie des Jeux, ISAE-SUPAERO, 65 slides, 2024.

- Basics of Game Theory, M2 ETE TSE, 126 pages, 2020.

- Tutorial on Zero-Sum Stochastic Games, NUS and Institute for Mathematical Sciences, 34 pages, Singapore 2015.

- “Bases mathématiques de la théorie des jeux”, with S. Sorin and R. Laraki. Ecole Polytechnique, 2008. 134 pages, ISBN 978-2-7302-1537-4.

- “Programmation Dynamique et Jeux Stochastiques”, M2 OJME Paris 6 2012, 22 pages.

- Mathématiques de la Décision (Decision Maths), L3 Eco Math Ecole d’Economie de Toulouse 2013, 48 pages.

- A mathematical introduction to game theory: 52 slides, 2009 TSE.

- Notes de cours Algèbre 1, L1 Eco Math at Paris-Dauphine, 41 pages, 2004.

### Teaching in Game Theory:

M2 or PhD level:

2021-2024: Introduction to Game Theory, ISAE SUPAERO, path Neuroergonomics and AI. 4h

2009-2022: “Game Theory” Course, M2 TSE, UT Capitole:  $\simeq$  30h.

2020: Games and Information, University of Rome Tor Vergata, 12h, February 2020.

2012: Repeated Games, summer school Dynamic Games and Applications, 4h, Valparaiso, Chile.

2011: Game Theory course at the Franco-Vietnamese research school: Mathematical methods in economics and finance. 6h, Do Son- Hai Phong, Vietnam.

2009-2012: 18h Course “Programmation dynamique et jeux stochastiques”, M2 “Optimisation et Théorie des Jeux. Modélisation en Economie” at Université Paris 6.

2006-2007 et 2007-2008: Course “Théorie des Jeux: Coopération et Equilibres”, 18h, M2 MASEF at Paris-Dauphine.

2002-2006: Course “Jeux et Contrats” in the DEA MMME (Modélisation et Méthodes Mathématiques en Economie, Paris I), with T. Tomala.

1999-2000 et 2000-2001: Course “Théorie des Jeux et Utilisation Stratégique de l’Information” (Game theory and strategic use of information) in the DEA MASE, Paris IX, 21h).

#### M1 or L3 Level:

2016-2022: Mathematical Game Theory 1 (formerly Strategic Optimization, formerly Decision Mathematics 1, new program), M1 Mathematics and Economic Decisions TSE. 30h

2015-2016: Decision Mathematics 2 (new program), M1 Eco Stats TSE. 18h

2012-2016: Course “Mathématiques de la décision”, (Decision mathematics, new course) L3 Eco-maths TSE, 27h, Université Toulouse 1 Capitole.

2012-13: Tutorials “Probability Theory”, M1 TSE, 15h.

2007-2009: Tutorials in Game Theory at Ecole Polytechnique, 9\*2h, for the course by Sylvain Sorin. For 3rd year students in the program “Ingénierie Mathématique de la Finance et des Systèmes Ecologiques”.

2001-2007: Game Theory Course in M1 MASS (applied mathematics for social sciences), Paris-Dauphine,  $\simeq$  30h yearly).

1999: Course “Game Theory and Applications to Industrial Organization”, from October 29 to November 12 at Birzeit University (Cisjordanie) at a level M1 MASS, part of a cooperation program between Birzeit University and the universities of Evry, Paris I, Paris VII and Paris IX. 6\*3h.

Exercices in Game Theory in M1 Econométrie (Paris I, 2nd semester 95/96, 12x1h30), and at ENSAE (3rd year division SEA, 1er semestre 95/96, 6x1h10).

#### **Teaching in Probability and Statistics:**

2022-2024: Tutorials in Probability at TSE, L2 Eco, 30h.

Tutorials in discrete time stochastic processes: (M1 MASS, Paris 9, 1999-2000, 10x1h30), in Probability (L3 MASS, Paris 9, 1999-2000 and 2001-2002, 26x1h30 per year), in Inferential Statistics (L3 MASS, Paris 9, 1998-99, 1999-2000 and 2000-2001, 13x1h30 per year) and also Statistics at IUP “Génie Mathématique et Informatique” (Paris 9, 1st year, 99-2000, 2000-2001 and 2001-2002, 36h including 12h of Software SAS per year). Direction of projects in probabilities and statistics for 3rd year students MASS. Exercices in Statistics (Paris I, 1rd year MASS, 96/97, 14x1h30).

#### **Others :**

2016-2017: Apprentissage des techniques et outils mathématiques pour l’économie (ATOME 2), L1 Eco-Maths, 18h. *Learning techniques and mathematical tools for economics.*

2013-2015: Tutorials “Analyse et Optimisation”, L3 Ecole d’Economie de Toulouse, 10x1h30.

2009-2012: In charge of the mathematics (linear algebra) course at semester 2 for 1st year students in economics and management at Université Toulouse 1 Capitole, 656 registrated students in 2010.



33h or 36h course for 150 students (and 15h tutorials in 2010 only).

2006-2007: Course “Mathématiques appliquées à l’Economie” (Applied mathematics for Economics) L3 Applied Economics, Université Paris-Dauphine. 13x3h.

2005-2006 et 2006-2007: Course/Exercices of mathematics in DUGEAD1 (Management and Applied Economics, Université Paris-Dauphine, 1rd year students): 2005/2006, 28x1h30.

Course: Algebra 1 for 1st year MASS students (from 2000-2001 to 2004-2005, 13x1h30, around 170 students). See above for the written notes.

Tutorials in Analysis and Algebra (1rd year MASS, 98-99, and 2000-01 to 2004-2005, 32x4h30, and 2nd year MASS, 99-2000, 26x1h30). Mathematical reasoning (1st year MASS, 98-99, 13x1h30), Optimization (Paris I, 2nd year MASS, 97/98, 14x1h30), Analysis (1st year MASS, 97/98, 14x2h), Mathematics for students in Economics (Paris I, 95/96 and 96/97, 12x1h30 per year).

Tutorials in Analysis (IUP “Génie mathématique et informatique”, 2nd year, 2004-2005, 7\*3h). Tutorials in convex and fonctionnal analysis (ENSAE, 1st year maths 1999-2000, 2000-2001 and 2001-2002, 13x2h). Exercices in (bi)linear algebra at ENSAE. (1st year economy, 1st semester 96/97, 15x2h). Preparation in mathematics for the Economic entrance examination at ENSAE (Paris I, M1 MASS, 97/98, 28x1h30).

**Supervision:** of  $\simeq$  24 memoirs or research projects (mostly M1 or M2 level).

## 5 Cursus

**Habilitation conferred to research direction** defended on November 27, 2007 at Université Paris-Dauphine. Title: “Autour des jeux répétés (optimisation et contrôle de processus dans les interactions dynamiques, et quelques problèmes combinatoires)”, i.e. “Around repeated games (optimization and control of stochastic processes in dynamic interactions, and a few combinatorial problems)”. Jury members: J. Abdou (Paris I), P. Cardaliaguet (Brest), F. Forges (Paris-Dauphine), E. Jouini (Paris-Dauphine, coordinator), E. Lehrer (Tel-Aviv, referee), J.F. Mertens (Louvain-la-Neuve, referee), S. Sorin (Paris VI, referee) and N. Vieille (HEC).

**PhD Thesis**(1995-1998) in applied mathematics: “Transmission stratégique d’information et Equilibres de jeux répétés” (Strategic transmission of information and equilibria of repeated games). Supervised at Université Paris I by J. Abdou, at the research center Cermsem (Centre de Recherches en Mathématiques, Statistiques et Economie Mathématique). Defended on October 19, 1998 (mention “très honorable”, proposed for a PhD award).

May-June 2009: Ranked 1st on the professor position PR-0311382J-9002 at University Toulouse 1 (applied maths) and on the prof. position PR-0141408E-120 at Caen University (applied and pure maths, profile: discrete optimization, applied and pure maths). Ranked 2nd on the position PR-0751722P-3541 at Université Paris 6 (applied maths, profile: Graph Theory, Discrete Optimization, Combinatorics).

May-June 1999: Ranked first on the Maître de Conférences (assistant prof) position MCF-0751717J-0395 at Paris I University (applied maths), ranked 3rd on the position MCF-0750736T-0427 at Paris-Dauphine Université (applied maths).

Statisticien-Economist diploma from ENSAE (National School for Statistics and Economic Administration), 1991-1994, SEA division, admission after preparatory classes “Mathématiques Supérieures et Spéciales M” (also admitted in 1991 at ENS Cachan).

Predoctoral DEA “Modélisation et Méthodes Mathématiques en Economie” (Models and Mathematical Methods in Economics), 1994, Université Paris I and Ecole Polytechnique (highest honours). French Agrégation in mathematics (1997), Licence (1993) and Maîtrise (1994) in mathematics at Université Paris VII.

## 6 Miscellaneous

- PEDR (“Prime d’Encadrement Doctoral et de Recherche”) awarded continuously from 2002 to 2023 (renewed in 2006, 2010 under the name of PES, 2015, 2019).
- OVA (Outstanding Vitae Awards) from Toulouse School of Economics, 2010-
- CRCT (Congé pour recherches ou conversions thématiques) of 6 months in 2005-2006 from the CNU.
- DODU price for the best presentation in the conference of the MODE group 1998.
- Member of the Econometric Society and of the Game Theory Society, and sometimes of the SMAI (French Applied Maths Society) and the SMF (French Maths Society).
  
- Elected member of the council of the Ceremade from 1999 to 2005. Member of the mathematics selection committees of Paris-Dauphine, 2001-2008 (vice-president from 2004 to 2006), Paris I (2004-2006), Limoges (2006-2008). Member of the selection committee for an assistant professor position at Paris-Dauphine in 2010, 2011 and 2012, for a professor position in Brest in 2011, for an assistant professor position in pure and applied maths (optimization, game theory, control, effective algebra or number theory) in 2012 at University Paris 6. Member of the selection committees for 2 professor positions (Statistics, Econometrics and Statistics), University Toulouse 1, 2014. Member of the selection committee for the Professor position “Optimization, Control, Combinatorics, Game Theory”, IMJ-PRG University Paris 6 2017. Member of the selection committee for the Maître de Conférences position “Mathematics”, GREQAM Aix-Marseille University 2017, and for a Maths Professor position, AMSE 2023. Candidate evaluation Hebrew University of Jerusalem and Tel-Aviv University 2019.
- Responsible for the Baccalauréat maths examination, bac STG (Sciences et Technologies de la Gestion) 2013. President of a Baccalaureat Jury in 2005 (session STL, Lycée Paul Eluard de St Denis).
  
- Article for the general public: “La vie est un jeu, avec Jérôme Renault” (Life is a game) by the journalist V. Ravinet, for the media Exploreur of University of Toulouse, March 2021.

- An introduction to zero-sum games for high school students: Cercle Sofia Kovalevskaia, Université Toulouse Capitole March 28, 2015 and March 16, 2019.
- Conference “Découvrades”, conferences between art and science at Meteo-France. February 8, 2018: “ Existe-t-il des stratégies gagnantes ? Bluffs, menaces, intelligence ? ”
- Talk at IRES (Research Institute for the teaching of Science): Zero-sum games. January 25, 2018.
- Video presenting the MADS (Decision mathematics and statistics) group of TSE, December 12, 2016.
- Article for the general public “Jeu concurrentiel, quand tout le monde y perd”, written by Umit Allard after an interview for the Dauphine-Groupama chair, January 2010.
- Contribution to the project: “About the creation of an ENS school in Toulouse” , leader Bertrand Girard, 2010-2011.
- Participation in a scientific experience during the French presidential election 2007. Testing the alternative voting system “Majority Judgement”, based on the median, introduced by M. Balinski and R. Laraki.
- Military service in 1994-1995 as a scientific (12 months). Former member of the French youth Chess team (best ranking: 2220 elo).