

Bruno Jullien  
September 2020

Toulouse School of Economics  
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French Citizen

### **Academic Appointments**

Senior Researcher (Directeur de Recherche), CNRS, Toulouse School of Economics

Co-director of TSE Digital Center

Leader of the academic group "Industrial Organization", TSE

ANITI Chair 'AI and Competition', Artificial and Natural Intelligence Toulouse  
Institute

Research Fellow, MaCCI

Research Fellow, CEPR

Research Fellow, CESifo

International Research Fellow, CMPO

### *Other activities*

Member of the Recruitment Committee, TSE

Member of the Executive Committee of European Association for Research in  
Industrial Economics (EARIE), 2016 - present

Member of Scientific Committee, Florence School of Regulation, Communication &  
Media

Member of MaCCI Advisory board, 2017 - present

### **Education**

Harvard University, Ph.D. Economics, 1988

ENSAE, "Statisticien Economiste", 1984

DEA, Analyse et Politique Economique, Ecole des Hautes Etudes en Sciences Sociales,  
1984

Ecole Polytechnique, 1979-1982

### **Awards and Honors**

European Research Council Advanced Grant, 2015-present

Fellow of the Econometric Society since 2014

ACE Award for Best Paper in Competition Policy (2012): "Why Do Intermediaries Divert Search?".

Best Article published in Journal of Industrial Economics (2011): "Advertising, Competition and Entry in Media Industries"

CNRS Bronze Medal (1998)

Officier de l'Ordre des Palmes Académiques.

Sloan Dissertation Fellowship (1987-1988)

Prize Louis Arman, Ecole Polytechnique (1982)

### **Past appointment**

Scientific Director, Toulouse School of Economics, 2014-2015.

Deputy Director, Toulouse School of Economics, 2009-2010.

Director, GREMAQ (CNRS UMR 5604), 1997-2005.

Research Fellow, CREST-LEI, INSEE, 1991-1996.

Research Fellow, CEPREMAP, 1988-1995.

Research assistant, Harvard University, 1986/87.

Professor cc, Ecole Polytechnique, 1992-2005.

Honorary Visiting Professor, University of Bristol, 2010-2015

Visiting Professor, University of Bristol, 2007-2009.

Visiting Professor, European University Institute, 2000.

Visiting Professor, Wuhan University, 2003.

Part-time Visiting Professor, University of Lausanne, 1993/94.

Associate Professor, ENSAE, 1990-1996.

Chargé de Conférence, EHESS, 1990-1992.

### *Other past services:*

Department Council of TSE, Economic Advisory Group on Competition Policy (DG Comp, EU, 2013-2016), Steering Committee of Association of Competition Economics (2013-2016), Standing Committee of the European Econometric Society, the Council of ASSET, Commission de Spécialistes de Sciences Economiques de l'Université des Sciences Sociales de Toulouse, Commission de Spécialistes de Gestion de l'Université des Sciences Sociales de Toulouse, Council of ADRES, Commission de Spécialistes de Sciences Economiques de l'Université Aix-Marseille II, Comité Directeur de l'AFSE, Research Council and Academic Council of University Toulouse 1 Capitole,

### *Editorial activities*

2010-2018; Co-Editor, *Journal of Economics and Management Strategy*.

1996- 2017: Member of the Editorial Board, *Geneva Risk and Insurance Review*.

2007-2010: Co-Editor, *International Journal of Industrial Organization*.

1991-2010: Associate Editor, *Annales d'Economie and Statistics*.

2000-2002: Member of *Economic Policy Panel*.

### **Recent keynotes and invited lectures**

Invited Lecture, Jornadas de Economía Industrial, Madrid, September 2019  
Keynote Lecture: 2nd doctoral workshop on the Economics of Digitization, May 2018  
Keynote Lecture: VIII Workshop on Institutions, Individual Behavior and Economic Outcome, Media Economics, June 2017  
Invited Lecture, Asian Pacific Industrial Organization Conference, Melbourne, 12 December 2016  
Keynote lecture, 17th CEPR-JIE Conference on Applied Industrial Organization; London, 19-21 May 2016  
Keynote lecture, 2nd annual BECCLE Competition Policy Conference - 21. April 2016, Bergen  
Keynote lecture, FSR C&M Scientific Seminar on the Economics, Law and Policy of Communications and Media, Florence, 2015  
Keynote lecture, BEREC Workshop on oligopoly analysis and regulation, Bern, 2015  
Keynote lecture, 7<sup>th</sup> Taller de Organización Industrial, Chile, 2014  
Keynote lecture, Eighth Postal Economics Conference, Toulouse, 2014  
Keynote lecture, CESifo Area Conference on Applied Microeconomics, Munich (March 2012).  
Keynote lecture, 2nd Workshop on the Economics of ICTs, Evora, Portugal (March 2011).  
Invited Speaker, EARIE, Stockholm (September 2011).  
Special Invited Speaker at the Eight International Conference on Competition and Regulation (CRESSE, 2013).  
Special Invited Speaker at the Sixth International Conference on Competition and Regulation (CRESSE, 2011).  
Invited Lecture, The economics of Information & Communication Technologies, Paris  
Invited Lectures, Universidad Del Rosario, Bogota, Colombia (2007).

### **Teaching experience**

University of Toulouse (Master and PhD): Industrial Organization, Competition Policy, and Competition & Market Strategies, since 2007.  
2013: Universidade do Porto, Two-Sided Markets  
2003: Wuhan University, Industrial Organization.  
2000: European University Institute, Contract Theory.  
1996-2006: University of Toulouse (Master and PhD), Microeconomics, Industrial Organization, Economics of risk and uncertainty.  
1990-2003: Ecole Polytechnique, Microeconomics, Industrial Organization, Economic and Competition Law, Game Theory, Corporate Governance.  
1990-1996: ENSAE, Macroeconomics, Industrial Organization.  
1993-1994, University of Lausanne (Master), Microeconomics.  
1990-1992: EHESS (Master), Microeconomics, Economics of risk and uncertainty.  
1991-1993: Institut National des Télécommunications, Microeconomics.

**PhD supervision (with placement)**

Laurent Linnemer (1996), Professeur de Universités (University of Montpellier).  
Isabelle Kabla (1999), Administrateur INSEE.  
Pierre Dubois (1999), Professeur des Universités (University of Toulouse).  
Martin Besfamille (2000), Professor at Universidad Torcuato Di Tella, Argentina.  
Frederic Loss (2001), Maître de Conférence at CNAM.  
Alexia Gaudeul (2003), Lecturer at University of East Anglia  
Sylvain Bourjade (2005), Professor at ESC Toulouse.  
Andrea Amelio (2007), Chief Economist Team at DG COMP, European Commission.  
Emilio Calvano (2008), Assistant Professor at University of Bocconi  
David Sauer (2012), consultant at Deloitte  
Carlos Canon (2012), Federal Bank of Mexico  
Anna D'Annunzio (2013), Senior Research Economist at Telenor, Norway  
Jorge Florez (2015): Professor at University of Rosario, Colombia  
Jimena Ferraro (2016): Office of Health Economics, UK  
Anastasya Parakhonya (2018), University of Durham, UK  
Ying Lei Toh (2018): Federal Reserve, US  
Xavier Lambin (2019): Grenoble Ecole de Management  
*Current supervisions:* Willy Lefez, Rossi Abi Rafeh, Luise Eisfeld

**Organization of conferences**

2019: "Economics of Platform Workshop", Bologna  
2018: "Economics of Platform Workshop", Roma  
2017: "Economics of Platform Workshop", Berlin  
2016: "Advances in the Economics of Organization and the New Economy", Toulouse  
2009: "Fifth bi-annual Conference on The Economics of the Software and Internet Industries", Toulouse  
2008: "The Economics of the Health Care and the Pharmaceutical Industry", Toulouse.  
2008: "The Theory and Empirics of Risk Sharing", Toulouse  
2007: "Regulation, Competition and Investment in Network Industries", Brussels  
2007: "Workshop on Risk Sharing", Toulouse  
2006: Chairman of program committee, Econometric Society European Congress  
2006: "Competition Policy in Two-Sided Markets", Toulouse  
2004: "Regulation of Media Markets", Toulouse  
2004: "The Economics of Electronic Communication Markets", Toulouse  
2003: "Competition policy in international markets", Toulouse  
2003: "The economics of software and internet industries (2<sup>nd</sup>)", Toulouse  
2001: "The economics of software and internet industries", Toulouse.  
1999: "Economics and Psychology", Toulouse  
1994: "International conference in the economics of mobile communications".  
1990: "Financial contracts and the theory of the firm", Banque de France.

### **Recent participation to scientific committees**

MaCCI Annual conference (2018), EARIE (2009, 2011, 2013, 2017 and 2018), "Workshop on the Economics of ICTs" (2018, 2015 and 2010), 20th INFER conference (2018), ICT Paris Conference" (2015 and 2017), Congress of AFSE (2011 and 2013), "Platform Markets: Regulation and Competition Policy" (2010), ESEM (2010), 8th INRA-IDEI Conference on Industrial Organization and the Food Processing Industry (2010), ZEW Conference on the Impact of Regulation on Investment and Innovation Incentives (2008), 5th Workshop on Media Economics (2007)

### **Referee for**

Econometrica, Journal of Political Economics, American Economic Review, Review of Economic Studies, The RAND Journal of Economics, Journal of Industrial Economics, Journal of Economics, Journal of Economic Theory, Economic Letter, Journal of Public Economics, Economic Journal, European of Economic Review, International Journal of Industrial Organization, Journal of Economics, Journal of Economic Dynamics et Control, Journal of Economics et Management Sciences, Annales d'Economie et de Statistique, Revue d'Economie Politique....

### **Refereed Publications (English)**

1. "The Economics of Platforms: A Theory Guide for Competition Policy", *Information Economics & Policy*, with Wilfried Sand-Zantman, 2020. <https://doi.org/10.1016/j.infoecopol.2020.100880>
2. "Dynamic Competition with Network Externalities: Why History Matters", *The RAND Journal of Economic*, 51: 3-31., with Hanna Halaburda and Yaron Yehezkel, 2020. doi:[10.1111/1756-2171.12304](https://doi.org/10.1111/1756-2171.12304)
3. "Creating platforms by hosting rivals", *Management Science*, with Andrei Hagiu and Julian Wright, 2020. <https://doi.org/10.1287/mnsc.2019.3356>
4. "Information Management and Pricing in Platform Markets", *The Review of Economic Studies*, Volume 86, Issue 4, Pages 1666–1703, with Alessandro Pavan, 2019. <https://doi.org/10.1093/restud/rdy040>
5. "Horizontal Mergers in Multi-Sided Markets: Insights from Cournot Competition", *Journal of Economics & Management Strategy*, 28: 109– 124, with J. Correia-da-Silva, Y. Lefouili, J. Pinho, 2019.
6. "Horizontal Mergers and Innovation", *Journal of Competition Law & Economics*, Volume 14, Issue 3, Pages 364–392, with Y. Lefouili, 2018.
7. "Internet Regulation, Two-Sided Pricing, and Sponsored Data", *International Journal of Industrial Organization*, Volume 58, Pages 31-62, with Wilfried Sand-Zantman, 2018.

8. "Mergers, Investments and Demand expansion", *Economics Letters*, Volume 167, Pages 136-141, with Marc Bourreau, 2018.
9. "Vertical Foreclosure and Multi-Segment Competition", *Economics Letters*, Volume 169, Pages 31-34, with Markus Reisinger et Patrick Rey, 2018
10. "An Offer You Can't Refuse: Early Contracting with Endogenous Threat", *The RAND Journal of Economics*, 48(3), 733-748, with Jerome Pouyet and Wilfried Sand-Zantman, 2017.
11. "Tying in Two-Sided Markets with Multi-Homing: Corrigendum and Comment", *The Journal of Industrial Economics*, Vol. 65, Issue 4, 872-886, with Jay Pil Choi and Yassine Lefouili, 2017.
12. "Reputation and Prices on the e-Market: Evidence from a Major French Platform", *International Journal of Industrial Organization*, 45, 59-75 with Gregory Jolivet and Fabien Postel-Vinay, 2016.
13. "Health Insurance and Diversity of Treatment: A Policy Mix Perspective", *Journal of Health Economics*, 47, 50-63, with David Bardey and Jean-Marie Lozachmeur, 2016.
14. "Product design and decision rights in vertical structures", *Research in Economics*, 70, 558-568, with Pierre Dubois, 2016
15. "Search Diversion and Platform Competition", *International Journal of Industrial Organization*, 33, 48–60, with Andrei Hagiu, 2014.
16. "New, Like New or Very Good? Reputation and Credibility", *The Review of Economic Studies*, 81(4): 1543-1574, with In-Uck Park, 2014.
17. "Termination Fees Revisited", *International Journal of Industrial Organization*, 31(6), 738-750 avec Patrick Rey et Wilfried Sand-Zantman, 2013.
18. "Tying and Freebies in Two-Sided Markets", *International Journal of Industrial Organization*, 30, 436–446, with Andrea Amelio, 2012.
19. "The Market for Lawyers: On the Value of Information on the Quality of Legal Services", *The RAND Journal of Economics*, Vol. 43, No. 4, 677–705, with Elisabetta Iossa, 2012.
20. "Why Do Intermediaries Divert Search?", *The RAND Journal of Economics*, vol 42, Issue 2, 337–362, with Andrei Hagiu, 2011.
21. "Competition in Multi-Sided Markets: Divide-and-Conquer", *American Economic Journal: Microeconomics*, 3: 1–35, 2011.
22. "The Roles of Reputation and Transparency on the Behavior of Biased Experts", *The RAND Journal of Economics*, Vol. 42 (3), 575–594, with Sylvain Bourjade, 2011.

23. "Retail Price Regulation and Innovation: Reference Pricing in the Pharmaceutical Industry", *Journal of Health and Economics*, vol. 29, n. 2, 303-316, with David Bardey and Antoine Bommier, 2010.
24. "Public and Private Investments in Regulated Network Industries: Coordination and Competition Issues", *Review of Network Economics*, vol 9, issue 4, with Jérôme Pouyet and Wilfried Sand-Zantman, 2010.
25. "Advertising, Competition and Entry in Media Industries", *The Journal of Industrial Economics*, vol. 57(1), 7-31, with C. Haritchabalet and C. Crampes, 2009.
26. "Formal and Informal Risk Sharing in LDCs: Theory and Empirical Evidence", *Econometrica*, Vol. 76, 4, 679-726, with Pierre Dubois and Thierry Magnac, 2008.
27. "Resale Price Maintenance and Tacit Collusion", *The RAND Journal of Economics*, Vol 38, 4, Winter 2007, 983-1001, with Patrick Rey, 2007.
28. "Screening Risk-Averse Agents under Moral Hazard", *Economic Theory*, 1, 151-191, with Bernard Salanié and François Salanié, 2007.
29. "Auction and the Informed Seller Problem", *Games and Economic Behavior*, 56, 2, 225-258, with T. Mariotti, 2006.
30. "Asymmetric Information in Insurance: Some Testable Implications", *The RAND Journal of Economics*, Vol37, 4, 783-798, with Pierre André Chiappori, Bernard Salanié and François Salanié, 2006.
31. "Chicken and Egg: Competition among Intermediation Service Providers", *The RAND Journal of Economics*, Vol 34, 2, 309-328, with Bernard Caillaud, 2003.
32. "Competing Cybermediaries", *European Economic Review, papers and proceedings*, Vol 45, 4/6, 797-808, with B. Caillaud, 2001.
33. "Modeling Time Inconsistent Preferences", *European Economic Review, papers and proceedings*, 44, 1116-1124, with B. Caillaud, 2000.
34. "Corporate Demand for Insurance with Optimal Financial Contracting", *Economic Theory*, 16 (1), 77-105, with B. Caillaud and G. Dionne, 2000.
35. "Participation Constraints in Adverse Selection Models", *Journal of Economic Theory* 93, 1-47, 2000.
36. "Scientific Progress and Irreversibility: An Economic Interpretation of the Precautionary Principle", *Journal of Public Economics* 75, 229-253, with C. Gollier and N. Treich, 2000.
37. "Estimating Preferences under Risk: The Case of Racetrack Bettors", *Journal of Political Economy* 108, 3, 503-530, with B. Salanié, 2000.
38. "Should More Risk Averse Agent Exert More Effort", *Geneva Papers of Risk and Insurance* 24, 19-28, with Bernard Salanié and François Salanié, 1999.

39. "Pricing Regulation under Bypass Competition", *The RAND Journal of Economics*, vol. 2, 29, 259-279, with N. Curien and P. Rey, 1998.
40. "A Classical Model of Involuntary Unemployment: Efficiency Wages and Macroeconomic Policy", *Journal of Economic Theory*, vol. 78, 2, 263-285, with P. Picard, 1998.
41. "National vs. European Industrial Policies: Bargaining, Information and Coordination of Incentives", *European Economic Review*, vol. 40, n° 1, with B. Caillaud and P. Picard, 1996.
42. "Hierarchical Organization and Incentives", *European Economic Review, Papers and Proceedings*, with B. Caillaud and P. Picard, 1996.
43. "Managerial Incentives Based on Acquisition of Information", *Journal of Economic and Management Sciences* vol. 4, N° 3, 427-444, with B. Caillaud, 1995.
44. "Competing Vertical Structures: Precommitment and Renegotiation", *Econometrica*, vol. 63, No 3, 621-646, with B. Caillaud and P. Picard, 1995.
45. "Measuring the Incidence of Insider Trading: A Comment on Shin", *Economic Journal*, vol 104, N° 427, 1418-19, with B. Salanié, 1994.
46. "Dynamic Duopoly with Learning Through Market Experimentation", *Economic Theory* 3, 517-539, with Ph. Aghion and M.P. Espinoza, 1993.
47. "Optimal Learning by Experimentation", *The Review of Economic Studies*, 58, 621-654, with Ph. Aghion, P. Bolton and C. Harris, 1991.
48. "Ordinal Independence in Nonlinear Utility Theory", *Journal of Risk and Uncertainty* 1, 355-387, with J. Green, 1988.
49. "Competitive Business Cycles in an Overlapping Generations Economy with Productive Investment", *Journal of Economic Theory*, 1988, vol. 46, N°1, 45-65 (reprinted in *Cycles and Chaos in Economic Equilibrium*, Princeton University Press, 1992).

#### **Refereed Publications (French)**

50. "Quel Rôle pour les Acteurs Publics dans l'Incitation Privée aux Investissements?", *Revue Economique*, 69(6), 985-1007, with Jérôme Pouyet and Wilfried Sand-Zantman, 2017.
51. "La régulation en pratique", *Revue d'Economie Politique*, 115(3), 273-284, with J.C. Rochet, 2005.
52. "Economie de l'information et Internet", *Revue Economique*, 52(3), 633-642, with Alexandre Gaudeul, 2001.
53. "E-Commerce: quelques éléments d'économie industrielle", *Revue Economique*, 52(1), 97-118, with Alexandre Gaudeul, 2001.



54. "Common Market with Regulated Firms", *Annales d'Economie et de Statistique*, 47, 65–101, with B. Caillaud and P.P. Combes, 1997.
55. "Information et organisation des processus de décision publique", *Revue d'économie politique*, vol. 106, n° 1, 15–37, with B. Caillaud and P. Picard, 1996.
56. "L'impact des options extérieures sur les échanges en information asymétrique", *Revue économique*, 47(3), 437-446, 1996.
57. "Tarification, Discrimination and Contournement", *Annales des Télécommunications*, vol 50, n° 2, 348–358, with N. Curien and P. Rey, 1995.
58. "Information, stabilité des prix et bien-être", *Annales d'économie et de statistique* 32, 1–16, 1993.

### **Work in progress**

59. "Personalized Pricing and Distribution Channels", TSE Working Paper, n° 19-995, with Markus Reisinger et Patrick Rey.
60. "Language, Internet and Platform Competition", TSE Working Paper 12-336. with Doh-Shin Jeon and Mikhail Klimenko
61. "Privacy Protection, Security and Consumer Retention", TSE Working Paper, n. 18-949, with Yassine Lefouili and Michael Riordan.
62. "Mergers and Demand-Enhancing Innovation", TSE Working Paper, n. 18-907, with Marc Bourreau and Yassine Lefouili,
63. "Mergers and Investments in New Products", TSE Working Paper, n. 18-949, with Yassine Lefouili.
64. "Communication, Feedbacks and Repeated Moral Hazard with Short-lived Buyers", with In-Uck Park, TSE Working Paper 19-1027

### **Chapters in Handbooks**

65. "The advertising-financed business model in two-sided media markets.", in *Handbook of Media Economics, vol 1A*, with Simon Anderson, 2016.
66. "B2B Two-Sided Platforms", in *Handbook of Digital Economy*, Oxford University Press, 2012.
67. "Empirical Evidence on the Preferences of Racetrack Bettors", in *Handbook of Sport and Lottery Markets*, Elsevier, with Bernard Salanié, 2008.
68. "Pricing and other business strategies for e-Procurement platforms", in Dimitri, Spiga and Spagnolo (eds.) *Handbook of Procurement*, Cambridge University Press, 2006.

### **Books, chapters in books, miscellaneous**

69. *Éléments de Microéconomie: exercices et corrigés*, Montchrestien, Paris, with P. Picard, 1991, revised 2002.

70. "Media and Two-Sided Markets", in *Media Markets and Competition Law: Multinational Perspectives*, Editors A. Bavasso, D.S. Evans, D. H. Ginsburg (eds), CPI, Boston, 2019
71. "Issues in on-line advertising and competition policy: a two-sided market perspective", in *Recent Advances in the Analysis of Competition Policy and Regulation*, J. Harrington, Y. Katsoulacos, P. Régibeau (eds), Edward Elgar Publishing Ltd, 2012.
72. "National Champions under Credit Rationing", in *Industrial Policy for National Champions*, C. Gollier, L. Woessmann, and O. Falck (eds), MIT Press, 2010.
73. "Régulation des prix et politique de remboursement des médicaments", *Revue Générale de Droit Médical*, 33, 273-290, with J.M Lozachmeur, C. Crampes, P. Dubois, 2009.
74. "The Economics of Tacit Collusion in Merger Analysis", *The Political Economy of Antitrust*, Vivek Ghosal and Johan Stennek (eds), with M. Ivaldi, P. Rey, P. Seabright and J. Tirole, 2007.
75. "E-commerce, two-sided markets and info-mediation", with A. Gaudeul, in E. Brousseau and N. Curien (eds.), *Internet and Digital Economics*, Cambridge University Press, 2007.
76. "Two-Sided Markets and Electronic Intermediation", in G. Illing and M. Peitz (eds.), *Industrial Organization and the Digital Economy*, MIT Press, 2007.
77. "Pricing and other business strategies for e-procurement platforms." *Handbook of Procurement*, Cambridge University Press, 2006.
78. "Mobile-to-Mobile Call Termination", in *Regulating Mobile Call Termination, Vodafone Policy Paper Series 1*, with Patrick Rey, 2004.
79. "Economie de l'Industrie", Encyclopédie Universalis, 2001.
80. "Analyse économique du système CAT-NAT", *Risques* 34, 1998.
81. "La régulation des monopoles publics", in A. Perrot (ed.), *Concurrence et Réglementation*, Economica, with P.P. Combes and B. Salanié, 1997

## Reports

82. *The Economics of Platforms: A Theory Guide for Competition Policy*, TSE Digital Center, with Wilfried Sand-Zantman, 2019.
83. *Network Effects*, IDEI Report n. 27, with Wilfried Sand-Zantman, 2016.
84. *The Economics of Margin Squeeze*, IDEI Report n. 23, 2013, with Patrick Rey and Claudia Saavedra.
85. *Net Neutralité: développements récents de la littérature économique*, IDEI Report n. 19, 2010.

86. *La régulation des monopoles*, IDEI Report n. 16, 2010, with Wilfried Sand-Zantman
87. *Notes on the Economics of Termination Charges*, IDEI Report n. 6, 2008, avec P. Rey.
88. *Charges de terminaison et concurrence: Quelques leçons de la littérature économique*, rapport n. 4, IDEI, avec P. Rey, 2006.
89. *The Economics of Tacit Collusion*, Report for the DG Competition, European Commission, 2004, with M. Ivaldi, P. Rey, P. Seabright and J. Tirole.
90. *The Economics of Unilateral Effects*, Report for the DG Competition, European Commission, 2004, with M. Ivaldi, P. Rey, P. Seabright and J. Tirole.
91. *Pratique des prix imposés et collusion*, Report for Direction de la Prévision, Ministry of Finance, France, 1997, with Patrick Rey and Thibaud Vergé.