

FRANCESCO QUATRARO

CURRICULUM VITAE



Professional Addresses

Dipartimento di Economia e Statistica ‘S. Cagnetti de Martiis’
Università degli Studi di Torino
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Current Appointments

Associate Professor of Economics (since December 2014)

Department of Economics and Statistics Cagnetti de Martiis
University of Torino (Italy)

Member of Scientific Committee of the SEEDS research centre

Research Associate at the BRICK, Collegio Carlo Alberto

Research Associate at the GREDEG CNRS, University of Nice Sophia Antipolis

Past Professional Experiences

September 2010 – December 2014 **Maitre des Conferences (Associate Professor) of Economics (since September 2010)**

Habilité à Diriger des Recherches

Prime d’Excellence Scientifique

Université de Nice “Sophia Antipolis”, CNRS-GREDEG.

April 2007 – August 2010

Post-Doc Fellow

CNRS-GREDEG, Université de Nice “Sophia Antipolis” (France)

January 2008 – May 2010

Assistant Director

Bureau of Research on Innovation, Complexity and Knowledge (BRICK), Collegio Carlo Alberto (Italy)

November 2006 – February 2010

Research Associate

Department of Economics “S. Cagnetti de Martiis”, University of Torino (Italy)

October 2006 – April 2007

Visiting Research Fellow

CRIC , The Victoria University of Manchester (UK)

October 2005 – April 2006

Visiting Research Fellow

Columbia Business School, Columbia University of New York (US)

April 2005 – September 2005

Visiting Research Fellow

CRIC , The Victoria University of Manchester (UK)

May 2002 – September 2003 **Research Fellow**
Department for the Study of Mediterranean Societies, University
of Bari (Italy)

Education and Qualification

2013-2017 **Italian Qualification as Full Professor**
Economics

2011 **Habilitation à Diriger des Recherches (HDR)**
Université de Nice Sophia Antipolis
Sciences Economiques

2003-2007 **PhD, Economics**
University of Torino,
Supervisor: Cristiano Antonelli

2003-2004 **PhD Training Courses**
Sant'Anna School of Advanced Studies of Pisa,

1996-2001 **Laurea Summa cum Laude**
School of Communication Studies
University of Torino

Honors and fellowships

2011-2015 **Prime d'Excellence Scientifique (PES)**
Ministère de l'Enseignement Supérieur et de la Recherche, France

2009 **Salvatore Vinci prize,**
Awarded by the University of Naples "Parthenope", Italy.

2007 **Marie Curie Training Fellowship** to attend the PREPARE Summer
School on Spatial Econometrics.

2005 **Giorgio Rota Prize,**
Awarded by the Unione Industriali of Turin, Italy.

2003 **PhD Fellowship,** University of Turin, Italy.

2001 **Best Bachelor Dissertation award,** Scientific Park Tecnopolis
CSATA, Bari, Italy.

Research Interests

Microeconomics, Macroeconomics, Industrial Dynamics, Economics of Innovation, Regional Economics,
Applied Economics

Research Grants

2014 WIFO (Austria) – WWWfor Europe Milestone leader
Euros 50000,00

2012 Mairie de Nice – Comité Doyen Lépine
Euros 4000,00.

Participation to Research Project and Reports

2012-2017	<u>Co-director</u> of the research project “Gouvernance d’entreprise et innovation”, CNRS-GREDEG.
2011-2014	<u>Deputy Coordinator</u> of the project: Policy Incentives for the Creation of Knowledge: Methods and Evidence (PICK-ME). EU 7 th Framework Programme. <i>EU Directorate for Research</i> . Grant Agreement Number: 266959.
2012-2016	<u>Milestone Leader</u> . WWWforEurope — Welfare, Wealth and Work for Europe. Grant number 290647. Cooperation Program / Theme 8 / Socio-economic Sciences and Humanities (SSH)
2005-2010	Integrated Project EURODITE (Regional Trajectories to the Knowledge Economy: A Dynamic Model). EU 7 th Framework Programme Contract no. 006187.
2005-2010	Member of the DIME network of excellence within the EU 7 th Framework Programme.
2009-2010	Knowledge Intensive Sectors: Models and Evidence, funded by the <i>French National Agency for Research (ANR)</i> , contract number: ANR JCJC06_141306.
2010	The Economics of Structural Change in Knowledge, International Centre for Economic Research (ICER).
2007	The Economics of Network Services in Piedmont, <i>Report to the Piedmont Consortium for Information Systems (CSI Piemonte) (Italy)</i>
2006	A cross-regional analysis of technological performances in the Italian North-West, <i>Report to MIUR Research Projects of National Interest (Italy)</i>
2005	Technological Knowledge Production and Economic Performances in Piedmont and Valle d'Aosta, <i>Fondazione Rosselli</i>
2003	Technological knowledge and localised learning: What perspectives for a European Policy? (TELL) <i>EU Directorate for Research</i> , research contract No. HPSE-CT2001-00051.

Teaching

2014-2015

- Political Economy (40h)
- Labour Economics (24h)
- Global Economy and Multinational Corporations (36h)

2013-2014

- Économétrie de séries temporelles et données en panel. 30h, CM, M1.
- Microéconomie. 30h, CM, M1.
- Analyse des données. 30 h, CM, M1.
- Economie régionale et spatiale. 30h, CM, L3.
- Analyse empirique des dynamiques régionales. 18h, M2 recherche.
- Analyse empirique des dynamiques régionales. 21h, M2 pro

2012-2013

- Économétrie de séries temporelles et données en panel. 30h, CM, M1.
- Microéconomie. 30h, CM, M1.

- Analyse des données. 20 h, CM, M1.
- Economie régionale et spatiale. 30h, CM, L3.
- Analyse empirique des dynamiques régionales. 18h, M2 recherche.

2011-2012

- Économétrie. 30h, M1.
- Systèmes d'innovation et territoires. 30h, CM, L3.
- Economie régionale et spatiale. 20h, CM, M1.
- Innovation et économie géographique. 21 h, M2 recherche.

2010-2011

- Analyse Microéconomique. 30 h, CM, L1.
- Econométrie. 30 h, CM.
- Systèmes d'innovation et territoires. 20 h, CM, M1.

Papers in refereed journals

1. Quatraro, F. and Vivarelli, M., 2014, Drivers of entrepreneurship and post-entry performance of newborn firms in developing countries. *World Bank Research Observer*, forthcoming, doi: 10.1093/wbro/lku012.
2. Quatraro, F., 2014, Co-evolutionary patterns in regional knowledge bases and economic structure: evidence from European Regions, *Regional Studies*, forthcoming, doi: 10.1080/00343404.2014.927952.
3. Colombelli, A., Krafft, J. and Quatraro, F., 2014, The emergence of new technology-based sectors in European regions: A proximity-based analysis of nanotechnology, *Research Policy*, 43, 1681-1696.
4. Krafft, J., Quatraro F. and Saviotti P.P., 2014, Knowledge characteristics and the dynamics of technological alliances in Pharmaceuticals: Empirical evidence from Europe, US and Japan, *Journal of Evolutionary Economics* 24, 587-622.
5. Colombelli, A., Krafft, J. and Quatraro, F., 2014, High Growth Firms and Technological Knowledge: Do gazelles follow exploration or exploitation strategies?, *Industrial and Corporate Change*, 23(1), 261-291.
6. Krafft, J., Quatraro F. and Saviotti P.P., 2014, The dynamics of knowledge-intensive sectors' knowledge base: Evidence from Biotechnology and Telecommunications, *Industry and Innovation* 21, 215-242.
7. Antonelli, C. and Quatraro F., 2014, The effects of biased technological changes on total factor productivity: A rejoinder and new empirical evidence, *Journal of Technology Transfer*, 39(2), 281-299.
8. Colombelli A. and Quatraro, F., 2014, The persistence of firms' knowledge base: A quantile approach to Italian data, *Economics of Innovation and New Technology*, 23, 585-610.
9. Krafft, J., Qu, Y., Quatraro, F. and Ravix, J.L., 2014, Corporate governance, value and performance of firms: New empirical results on convergence from a large international database, forthcoming, *Industrial and Corporate Change*, 23(2), 361-397.
10. Ghisetti, C. and Quatraro, F., 2013, Beyond inducement in climate change: Does environmental performance spur environmental technologies? A regional analysis of cross-sectoral differences,

Ecological Economics, 96, 99-113.

11. Colombelli, A., Krafft, J. and Quatraro, F., 2013, Properties of knowledge base and firm survival: Evidence from a sample of French manufacturing firms, *Technological Forecasting and Social Change*, 80, 1469-1483.
12. Antonelli, C. and Quatraro F., 2013, Localized Technological Change and Efficiency Wages: the Evidence across European Regions, *Regional Studies*, 47, 1686-1700.
13. Antonelli C., Patrucco P. and F. Quatraro, 2011, Pecuniary Knowledge Externalities: Evidence from European Regions, *Economic Geography*, 87, 23-50.
14. Krafft J., Quatraro F. and P., Saviotti, 2011, The Knowledge Base Evolution in Biotechnology: A Social Network Analysis, *Economics of Innovation and New Technology*, 20, 445-475.
15. Quatraro, F., 2011, ICT Capital and Services Complementarities. The Italian Evidence, *Applied Economics*, 43, 2603-2613.
16. Quatraro, F., 2010, Knowledge Coherence, Variety and Productivity Growth: Manufacturing Evidence from Italian Regions, *Research Policy*, 39, 1289-1302.
17. Antonelli, C., Krafft, J. and Quatraro, F., 2010, Recombinant knowledge and growth: The case of ICTs, *Structural Change and Economic Dynamics*, 21, 50-69.
18. Antonelli, C. and Quatraro, F., 2010, The Effects of Biased Technological Change on Total Factor Productivity. Empirical Evidence from a Sample of OECD Countries, *Journal of Technology Transfer*, 35, 361-383.
19. Quatraro, F., 2009, Innovation, structural change and productivity growth. Evidence from Italian regions, 1980-2003, *Cambridge Journal of Economics*, 33, 1001-1022.
20. Quatraro, F., 2009, The diffusion of regional innovation capabilities: Evidence from Italian patent data, *Regional Studies*, 43, 1333-1348.
21. Antonelli, C., Patrucco P.P. and Quatraro, F., 2008, The governance of localized knowledge externalities, *International Review of Applied Economics*, 22, 479-498.
22. Quatraro F., 2007, Change vs. Decline: A Comparative Analysis of the Evolution of TFP in Italian Regions, with a Particular Attention to the case of Turin, *International Review of Economics*, 54, 86-105.
23. Quatraro, F., 2006, Technological Change and Productivity Growth in Italian Regions, 1982-2001, *Region et Developpement*, 24, 139-164.
24. Quatraro, F., 2005, A Schumpeterian Approach to Innovation Clustering in a Low-tech Technology in a Peripheral Region: The Case of Garments in Mezzogiorno, *Innovation: Management, Policy & Practice*, 7, 435-450.
25. Quatraro, F., 2005, An Ethno-Linguistic Approach to the Role of Services in Knowledge Transfer: The Case of the Innovation Relay Centre of Southern Italy, *Prometheus*, 23, 437-458.

Submitted Working Papers

1. Colombelli A. and Quatraro, F., New Firm Formation and the properties of local knowledge bases: Evidence from Italian NUTS 3 regions. *Major revision*.
2. Ghisetti, C. and Quatraro, F., Is green knowledge improving environmental productivity? Sectoral Evidence from Italian Regions. *Major revision*.
3. Antonelli, C. and Quatraro, F., Technological congruence: directed technological change and productivity growth. The regional evidence. *Revised and resubmitted*.
4. Crespi, F., Ghisetti, C. and Quatraro, F., Environmental and Innovation policies for the evolution of

green technologies: a survey. *Submitted*.

5. Colombelli, A., Krafft, J. and Quatraro, F., Eco-innovation and firm growth: Do green gazelles run faster? Microeconomic evidence from a sample of European firms. *Submitted*.
6. Bianchini, S., Krafft, J., Quatraro, F. and Ravix, J.L., Corporate Governance, Innovation and Firm Age: Insights and New Evidence. *Submitted*.

Work in Progress

1. Cross-border knowledge flows in European Regions (with Stefano Usai)
2. The emergence of green technologies in regional contexts: the case of Biofuels (with Francesco Crespi and Valeria Costantini)
3. Adoption of green technologies and Social Corporate Responsibility: a Microeconomic Analysis (with Alessandra Colombelli)
4. Corporate governance and high growth firms (with Alessandra Colombelli and Jackie Krafft)
5. Understanding Serial Innovators: The role of exploration and exploitation (with Alessandra Colombelli and Francesco Crespi)
6. Market value and innovation in green technologies (with Alessandra Colombelli and Claudia Ghisetti)
7. Temporary jobs and firms' innovation dynamics (with Francesco Devicienti and Claudia Vittori)
8. Innovation and worker-mobility based competence transfer: Evidence from Italian matched employer-employee data (with Francesco Devicienti and Fabio Berton and Matteo Richiardi)
9. Key Enabling Technologies and Smart Specialization patterns. European evidence from patent data. (con Sandro Montresor)
10. Academic patenting and absorptive capacity: general evidence and an in depth analysis of green patents (with Gianluca Orsatti and Michele Pezzoni)

Not-submitted Working Papers

1. Antonelli C. e F. Quatraro (2007), "Shifting the Bias: How to Disentangle Creative Adoption from Radical Innovation. Empirical Evidence from Italy and the US ". LEI & BRICK Working Paper, N.06/2007.
2. Antonelli C. e F. Quatraro (2007), "Directed Technological Change and Total Factor Productivity. Effects and Determinants in a Sample of OECD Countries, 1971 – 2001". LEI & BRICK Working Paper, N.11/2007.
3. Quatraro, Francesco (2006), "Mind the Gap: Convergence of Technology and Technology of Convergence in Italian Regions, 1982-2001". LEI & BRICK Working Paper, N.03/2006.

Book Chapters

1. Quatraro, F., 2011. Knowledge Structure and Regional Economic Growth: The French case. In Libecap, G.D. and Hoskinson, S. (eds.) *Entrepreneurship and Global Competitiveness in Regional Economies: Determinants and Policy Implications (Advances in the Study of Entrepreneurship, Innovation & Economic Growth, Volume 22)*, Emerald Publishing, Cambridge, pp. 185-217.

2. Colombelli, A. and Quatraro, F., 2012. The European Firm, in Dietrich, M. and Krafft, J. (eds) *Handbook on the Economics and Theory of the Firm*, Cheltenham: Edward Elgar.
3. Krafft, J. and Quatraro, F., 2011. The dynamics of technological knowledge: From linearity to recombination, in Antonelli, C. (ed) *Handbook on System Dynamics of Technological Change*, Cheltenham: Edward Elgar, pp. 181-200.
4. Antonelli, C., Patrucco, P.P. and Quatraro F., 2008. The Economics of Information and Communication Technologies, *International Encyclopedia of Communication*, Oxford: Blackwell Press (ISBN: 9781405131995).
5. Antonelli, C., Patrucco, P. P. and Quatraro, F., 2007. La Grande Onda Schumpeteriana alla fine del XX secolo. Transizioni Tecnologiche e Modelli Economici nel Caso Italiano, in Berta, G. (ed.), *Una Trasformazione in Atto: Il Nord Italia. Annali della Fondazione Giangiacomo Feltrinelli – 2007*, Milano: Feltrinelli.

Books

1. Crespi, F. e Quatraro, F. (eds) (2015). Knowledge, innovation and systemic technology policy. In press. Routledge: London and New York.
2. Francesco Quatraro, 2012, [*The Economics of Structural Change in Knowledge*](#), New York and London, Routledge, (ISBN: 9780415565431; ISBN-10: 041556543X).

Edited volumes / special issues

1. “The dynamics of knowledge and innovation in knowledge-intensive industries”, edited by Jackie Krafft, Francesco Quatraro and Pier Paolo Saviotti, published on *Economics of Innovation and New Technology*, 2011, vol. 20, issue 5 (July).
2. “Systemic Technology Policy: Issues and Instruments”, edited by Francesco Crespi and Francesco Quatraro, *Technology Forecasting and Social Change*, 2013, vol. 80, issue 8.
3. “Emergence and evolution of new industries: The path-dependent dynamics of knowledge creation”, edited by Jackie Krafft, Sebastien Lechevalier, Francesco Quatraro, Cornelia Storz, to appear on *Research Policy*, fall 2014.
4. “Firm age and performance”, edited by Alex Coad, Jacob Ruabaek Holm, Jackie Krafft and Francesco Quatraro, to appear on the *Journal of Evolutionary Economics*, fall 2015.

Book reviews

1. Francesco Quatraro, 2010, "Martin Fransman: The new ICT ecosystem. Implications for Europe", *Journal of Evolutionary Economics*, 20, 321-328.

Conference Presentations/Invitations

- 2014 Grenoble Ecole de Management (January 2014)
- 2013 Department of Economics, University of Padua (December 2013)
- 2013 Invited Seminar on “New Firm Formation and the properties of local knowledge bases: Evidence from Italian NUTS 3 regions”, University of Trieste (May 2013)

- 2013 DRUID Summer Conference, Barcelona
(21-24 June 2013)
- 2012 The Governance of a Complex World, University of Nice
(November 2012)
- 2012 AISRE Annual Conference, Rome
(14 September 2012)
- 2012 ENEF Annual Meeting, Bologna
(13 September 2012)
- 2011 European Association of Evolutionary Political Economy, University
of Vienna (Austria).
- 2011 Annual Meeting of the “Economia e Politica Industriale” group, held
in Parma, 24-25 June.
- 2011 Workshop on High Growth Firms, organized by the RATIO institute
in Stockholm.
- 2011 GREDEG seminar series, University of Nice Sophia Antipolis.
- 2011 SEIKE Seminar series, organized by the University of Torino and the
BRICK, Collegio Carlo Alberto.
- 2011 European Meeting on Applied Evolutionary Economics (EMAE),
Sant’Anna School of Advanced Studies, Pisa (Italy)
- 2010 European Association of Evolutionary Political Economy, University
of Bordeaux (France)
- 2009 European Association of Evolutionary Political Economy, University
of Amsterdam (Netherlands)
- 2009 Workshop, Erasmus University of Rotterdam (Netherlands)
- 2009 Workshop, Eindhoven University of Technology (Netherlands)
- 2009 Thematic meeting of the French Economic Association, University of
Nice (France)
- 2009 Workshop, University of Lyon Lumiere II (France)
- 2008 Workshop on Knowledge Intensive Industries (organizer)
BRICK, Collegio Carlo Alberto (Italy)
- 2008 European Association of Evolutionary Political Economy, University
of Roma Tre (Italy)
- 2008 Conference on Knowledge and Growth, Toulouse Business School
(France)
- 2008 Workshop, University of Newcastle (UK)
- 2008 ERSA conference, University of Liverpool (UK)
- 2008 Annual conference of the Regional Studies Association, Prague
- 2007 CCC doctoral colloquium, GeorgiaTech, Atlanta (US)
- 2007 EMAEE conference on Innovation, Manchester Metropolitan
University (UK)
- 2007 ERSA conference, University of Paris Cergy Pontoise (France)
- 2006 ERSA conference, University of Volos (GR)
- 2004 Conference of the International Schumpeter Society, Bocconi
University of Milan
- 2003 ASEAT conference, University of Manchester (UK)
- 2003 DRUID conference, Copenhagen (DK)
- 2002 Annual conference of the Regional Studies Association, Pisa (Italy)

Organisation of Conferences and Special Sessions

- 2014 – Conference “The Governance of a Complex World: Innovation and cooperation as entrepreneurial challenges”, University of Torino (Italy)
- 2014 – Geography of Innovation Conference, University of Utrecht (Netherlands)
- 2013 – Conference “The Governance of a Complex World: Innovation and cooperation as entrepreneurial challenges”, Erasmus University of Rotterdam (Netherlands)
- 2012 – GREDEG conference on “The Governance of a Complex World” (Nice)
- 2012 – PICK-ME conference on Demand-Driven Innovation and Economic Policy (Turin)
- 2011 – EAEPE Conference (Wien)
- 2010 – EAEPE Conference (Bordeaux)
- 2010 – Workshop BRICK on “Understanding the Emergence of New Industries” (Turin)
- 2009 – Workshop Communia on “The Organisation, Economics and Policy of Scientific Research”(Turin)
- 2008 – Workshop BRICK on “The dynamics of knowledge and innovation in knowledge-intensive industries”(Turin)

Students supervision

PhD

- Gianluca Orsatti
Academic patenting in green technologies
- Awatif Benkourrad (doctorat en co-tutelle)
Firmes à forte croissance et création d'emploi
- Ait Abdelmalek
Systèmes d'Innovation et Différentiation du Système Economique
- Claudia Ghisetti (PhD student at the University of Bologna)
Supervision of her visiting stay at the GREDEG

Master

- Alessandra Cosmano, Politecnico di Torino
Corporate social responsibility, market value and eco-innovation : The French evidence
- Gianluca Conforti, Università degli Studi di Brescia
Corporate governance and innovation : evidence from the ISS Risk Metrics database
- Carlo Delu, Università degli Studi di Torino
Global Value Chains and the quality of subcontracting relationships: evidence from the automotive industry
- Cheikh Al Ibrahima Mara SECK – M2 Recherche
Les enjeux locaux des dynamiques de création de nouvelles industries : complémentarité et hystérèse

Refereeing

Applied Economics, Economics of Innovation and New Technology, Papers in Regional Science, Journal of Evolutionary Economics, Regional Studies, Research Policy, International Regional Science Review, Economic Geography, Small Business Economics, Ecological Economics

Skills**Computing**

Microsoft Office: Word, Power Point & Excel; Expert level

Stata: Econometric Analysis Software; Expert level

Matlab: Expert level

Pajek: Analysis and visualization of large networks; Expert level

Sampler: Software for lexicographic analysis; Average level

Language

Italian: native;

English: excellent written and spoken;

French: good level written and spoken.