# Federico Bianchi

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ORCiD: 0000-0002-7473-1928

Born: 29 July, 1987 — Como, Italy

Citizenship: Italian

# Current and past positions

2020	Adjunct Professor of Social Network Analysis Graduate School in Social and Political Sciences, University of Milan, Italy
2020	Post-Doctoral Researcher in Sociology Behave Lab, Department of Social and Political Sciences, University of Milan, Italy
2017 - 2020	Post-Doctoral Researcher in Economic Sociology GECS – Research Group on Experimental and Computational Sociology, Department of Economics and Management, University of Brescia, Italy

# Visiting periods

2019 Institute for Analytical Sociology, Linköping University, Sweden

Host: Károly Takács

2017 Department of Computer Science, Universitat de València, Spain

Host: Francisco Grimaldo Moreno

Department of Sociology / ICS, University of Groningen, The Netherlands

Host: Andreas Flache

# Education

Ph.D., Economic Sociology and Labour Studies, with distinction

University of Milan, University of Brescia, University of Eastern Piedmont (Italy)

Dissertation: The Social from the Economic. The Emergence of Solidarity within

Networks of Economic Exchange

Supervisor: Flaminio Squazzoni

2013 M.A., Sociology, cum laude, University of Turin (Italy)

Dissertation: Interests and Identity in Collective Action: A Social Simulation Approach

(recommended for publication)

Advisors: Filippo Barbera, Pietro Terna

B.A., Philosophy, cum laude, University of Milan (Italy)

2008 – 2009 Erasmus Student, University of Tübingen (Germany)

## **Publications**

2019

## Peer-reviewed publications

Cousin, Grégoire, **Federico Bianchi**, and Tommaso Vitale. From Roma Autochthonous Homophily to Socialization and Community Building in the Parisian Metropolitan Region Shantytowns. *Journal of Ethnic and Migration Studies*. In press. doi: 10.1080/1369183X.2020.1736993.

**Bianchi, Federico**, Andreas Flache, and Flaminio Squazzoni. Solidarity in Collaboration Networks when Everyone Competes for the Strongest Partner. A Stochastic Actor-Based Simulation Model. *The Journal of Mathematical Sociology.* 44(4): 249-266. doi: 10.1080/0022250X.2019.1704284

**Bianchi, Federico**. Making Bonds of Solidarity from Economic Exchange. A Review Essay. *Sociologica*. 14(1): 207-225. doi: 10.6092/issn.1971-8853/9727.

Squazzoni, Flaminio, Petra Ahrweiler, Tiago Barros, **Federico Bianchi**, Aliaksandar Birukou, Harry J. J. Blom, Giangiacomo Bravo, Stephen Cowley, Virginia Dignum, Pierpaolo Dondio, Francisco Grimaldo, Lynsey Haire, Jason Hoyt, Phil Hurst, Rachael Lammey, Catriona MacCallum, Ana Marušić, Bahar Mehmani, Hollydawn Murray, Duncan Nicholas, Giorgio Pedrazzi, Iratxe Puebla, Peter Rodgers, Tony Ross-Hellauer, Marco Seeber, Kalpana Shankar, Joris Van Rossum, and Michael Willis. Unlock Ways to Share Data on Peer Review. *Nature*. 578(7796): 512–514. doi: 10.1038/d41586-020-00500-y.

**Bianchi, Federico**, Francisco Grimaldo, and Flaminio Squazzoni. The  $F^3$ -Index. Valuing Reviewers for Scholarly Journals. *Journal of Informetrics*. 13(1): 78–86. doi:

## 10.1016/j.joi.2018.11.007.

Bianchi, Federico, Francisco Grimaldo, Giangiacomo Bravo, and Flaminio Squazzoni. The Peer Review Game: An Agent-Based Model of Scientists Facing Resource Constraints and Institutional Pressures. *Scientometrics*. 116(3): 1401–1420. doi: 10.1007/s11192-018-2825-4.

**Bianchi, Federico**, Niccolò Casnici, and Flaminio Squazzoni. Solidarity as a Byproduct of Professional Collaboration: Social Support and Trust in a Coworking Space. *Social Networks*. 54: 61–72. doi: 10.1016/j.socnet.2017.12.002.

- Bianchi, Federico, and Flaminio Squazzoni. Is Three Better than One? Simulating the Effect of Reviewer Selection and Behavior on the Quality and Efficiency of Peer Review. In L. Yilmaz, W. K. V. Chan, I. Moon, T. M. K. Roeder, C. Macal, and M. D. Rossetti (Eds.), *Proceedings of the 2015 Winter Simulation Conference* (pp. 4081–4089). Piscataway, NJ: IEEE Press. doi: 10.1109/WSC.2015.7408561.
- Bianchi, Federico, and Flaminio Squazzoni. Agent-Based Models in Sociology. Wiley Interdisciplinary Research: Computational Statistics. 7: 284-306. doi: 10.1002/wics.1356.

# Invited book chapters

- Bianchi, Federico, and Flaminio Squazzoni. Modelling and Social Science. Problems and Promises. In E. A. Moallemi, and F. J. de Haan (Eds.), *Modelling Transitions. Virtues, Vices, and Visions of the Future* (pp. 60–73). London: Routledge.
- Bianchi, Federico, and Flaminio Squazzoni. J. S. Coleman. Scambio economico e risorse sociali: fiducia e reputazione. In F. Barbera, and I. Pais (Eds.) Fondamenti di sociologia economica (pp. 101–113). Milano: EGEA.

**Bianchi, Federico**, Simone Gabbriellini, and Flaminio Squazzoni. I modelli ad agenti. In F. Barbera, and I. Pais (Eds.) *Fondamenti di sociologia economica* (online materials). Milano: EGEA.

## Book reviews

Federico Bianchi. Review of Simulating Knowledge Dynamics in Innovation Networks, by N. Gilbert, P. Ahrweiler, and A. Pyka (Eds.). Journal of Artificial Societies and Social Simulation 18(4).

### Other publications

VV.AA. Intangibles di impresa e valore: competenze per l'innovazione. Adriano Olivetti Foundation, Working Paper on Knowledge Society Series, 6/2013.

# Conferences and seminars

## Papers at peer-reviewed conferences

Bianchi, Federico, Niccolò Casnici, and Marco Castellani, "Differences in ability attribution between native and migrant students. Preliminary results from a network study of an Italian secondary school" (IV Convegno SISEC - Società Italiana di Sociologia Economica, University of Turin, Turin, Italy, 30 January - 1 February).

Bianchi, Federico, Niccolò Casnici, and Marco Castellani, "Status and Segregation of Adolescents with Migratory Background in Friendship Networks. Evidence from an Italian Secondary School" (ARS '19 - Seventh International Workshop on Social Network Analysis, Vietri sul Mare, Italy, 28 - 31 October).

Bianchi, Federico, Aliakbar Akbaritabar, Niccolò Casnici, Alessandra Marengoni, and Flaminio Squazzoni, "Capitale sociale e reti personali nella prevenzione del decadimento cognitivo delle persone anziane" (III Convegno SISEC - Società Italiana di Sociologia Economica, University of Naples Federico II, Naples, Italy, 31 January - 2 February).

Casnici, Niccolò, Federico Bianchi, and Marco Castellani, "Integrazione e rendimento scolastico nell'istruzione secondaria: uno studio longitudinale nella provincia di Brescia" (III Convegno SISEC - Società Italiana di Sociologia Economica, University of Naples Federico II, Naples, Italy, 31 January - 2 February).

Bianchi, Federico, Andreas Flache, and Flaminio Squazzoni "Solidarity and Competition: Simulating Social Support Between Competing Collaboration Partners" (ISA XIX World Congress of Sociology, Toronto, Canada, 15 July - 21 July).

Bianchi, Federico, Andreas Flache and Flaminio Squazzoni, "Solidarity and Competition: Simulating Social Support Between Competing Business Partners" (XXXVIII Sunbelt Conference of the International Network for Social Network Analysis, Utrecht University, Utrecht, The Netherlands, 27 June - 1 July).

Bianchi, Federico, Francisco Grimaldo and Flaminio Squazzoni, "The F<sup>3</sup>-Index. A Rating and Ranking Algorithm for Reviewers of Journal Articles" (PEERE International Conference on Peer Review, National Research Council, Rome, Italy, 7-9 March).

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "Solidarietà fragile. Una simulazione di reti di collaborazione e supporto reciproco tra professionisti concorrenti" (Secondo Convegno SISEC - Società Italiana di Sociologia Economica, Catholic University of the Sacred Heart, Milan, Italy, 25-27 January).

Bianchi, Federico, Andreas Flache and Flaminio Squazzoni, "Solidarity and Competition: Simulating Social Support Between Competing Business Partners" (Social

2017

Simulation Conference 2017, University College Dublin, Dublin, Ireland, 25-29 September).

Squazzoni, Flaminio, and Federico Bianchi, "Simulating Peer Review: Prospects and Challenges" (Social Simulation Conference 2017, University College Dublin, Dublin, Ireland, 25-29 September).

D'Ambrosio, Gabriella, Federico Bianchi and Flaminio Squazzoni, "Social Selection and Innovation Diffusion in Marital Instability: An Empirically Calibrated Agent-Based Model of Partnership Change in Italy 1991-2011" (Social Simulation Conference 2017, University College Dublin, Dublin, Ireland, 25-29 September).

Bianchi, Federico, Andreas Flache and Flaminio Squazzoni, "Solidarity and Competition: Simulating Social Support Between Competing Collaboration Partners" (INAS 2017 Conference of the International Network of Analytical Sociologists, University of Oslo, Oslo, Norway, 8-9 June).

Bianchi, Federico, Andreas Flache and Flaminio Squazzoni, "Solidarity and Competition Between Collaboration Partners: An Agent-Based Computer Simulation Study of Multiplex Networks Using SOAMs" (ARS '17 - Sixth International Workshop on Social Network Analysis, Naples, Italy, 15-17 May).

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "Da collaborazione a solidarietà. Fiducia e supporto tra professionisti in uno spazio di *coworking*" (Primo Convegno SISEC - Società Italiana di Sociologia Economica, Sapienza University of Rome, Rome, Italy, 26-28 January).

Bianchi, Federico, Andreas Flache and Flaminio Squazzoni, "Does Competition Always Undermine Solidarity? Cohesion and Integration of Support Networks among Business Partners" (4<sup>th</sup> Doctoral Workshop in Economics of Innovation, Complexity and Knowledge, Collegio Carlo Alberto, Turin, Italy, 15-16 December).

2016

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "From Collaboration to Solidarity among Peers. A Multivariate ERGM of Support and Trust Between Collaborating Freelance Workers" (2<sup>nd</sup> European Conference on Social Networks, Paris Institute of Political Studies, Paris, France, 14-17 June).

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "Coworking and Solidarity among Peers. A Full Network Study of the Emergence of Support Between Co-working Freelancers" (INAS 2016 Conference of the International Network of Analytical Sociologists, Utrecht University, Utrecht, The Netherlands, 3-5 June).

Bianchi, Federico and Flaminio Squazzoni, "Transparency Comes at a Serious Cost. An Agent-Based Model of Open versus Confidential Peer Review in Science" (INAS 2016 Conference of the International Network of Analytical Sociologists, Utrecht

University, Utrecht, The Netherlands, 3-5 June, 2016).

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "Coworking and Social Support among Peers. A Multivariate ERGM of Economic and Social Exchange Between ICT Freelancers" (XXXVI Sunbelt Conference of the International Network for Social Network Analysis, Newport Beach (CA), USA, 4-10 April).

Bianchi, Federico, Niccolò Casnici and Flaminio Squazzoni, "Coworking and Social Support among Peers: A Multiplex Network Study of a Coworking Space" (3<sup>rd</sup> Doctoral Workshop in Economics of Innovation, Complexity and Knowledge, Collegio Carlo Alberto, Turin, Italy, 21-22 January).

Bianchi, Federico and Flaminio Squazzoni, "Is Three Better than One? Simulating the Effect of Reviewer Selection and Behavior on the Quality and Efficiency of Peer Review" (Winter Simulation Conference 2015, Huntington Beach (CA), USA, 6-9 December).

Bianchi, Federico and Flaminio Squazzoni, "Is Three Better than One? Simulating the Effect of Reviewer Selection and Behavior on the Quality and Efficiency of Peer Review" (Social Simulation Conference 2015 - 11 <sup>th</sup> Conference of the European Social Simulation Association, University of Groningen, Groningen, The Netherlands, 14-18 September).

Bianchi, Federico and Gianluca Pozzoni, "Methodological Individualism Between Explanation and Theory Building" (ENPOSS - European Network for the Philosophy of the Social Sciences Third Conference, UNED - Universidad Nacional de Educación a Distancia, Madrid, Spain, 10-12 September).

#### Invited seminars and lectures

"Social relationships and social networks", 2 December, invited lecture within the course "Foundations of Economic Sociology", Graduate School in Social and Political Sciences, University of Milan, Milan, Italy.

"Scambio economico e solidarietà", 19 November, invited lecture within the course "Economia della cooperazione e del terzo settore", Department of Economics and Management, University of Brescia, Brescia, Italy. (Italian)

"Solidarity from economic exchange. Studying collaboration, support, and segregation through network analysis and agent-based modelling", 5 December, Institute for Analytical Sociology, Department of Management and Engineering, Linköping University, Norrköping, Sweden.

"Building solidarity from economic exchange: trust and support between collaboration and competition", 26 February, Computational Social Science – Research Center for Educational and Network Studies (CSS-RECENS), HAS Centre for Social Sciences, Hungarian Academy of Sciences, Budapest, Hungary.

"L'economia circolare", Gruppo di Iniziativa Territoriale Banca Etica - Brescia, Brescia, Italy. (Italian)

"Collaboration, trust and support within exchange networks: integrating network analysis and ABM simulation", ResFron (Research Frontiers in Economic Sociology and Labour Studies) Seminar, 19 March, Department of Political and Social Sciences, University of Milan, Milan, Italy.

## Conference organization

"La Social Network Analysis come strumento per la comprensione delle attuali trasformazioni socio-economiche", session at the *V Convegno SISEC - Conference of* the Italian Society of Economic Sociologists, 9 - 12 June, University of Catania, Catania, Italy — Co-organizer with Niccolò Casnici and Antonello Podda.

"Agent-based models of social networks. Integrating agent decision-making with network dynamics", workshop at the *Social Simulation Week 2020*, 15-17 September — Co-organizer with Filip Agneessens, Andreas Flache, and Károly Takács.

Social Simulation Week 2020, 14-18 September, University of Milan, online event — Member of Local Committee.

Social Simulation Conference 2020, 14-18 September, University of Milan, Milan, Italy — Member of Programme Committee. [Cancelled]

STI 2020 – 25th International Conference on Science, Technology and Innovation Indicators, 2-4 September, AArhus, Denmark — Member of Scientific Committee. [Cancelled]

 $6^{th}$  International Conference on Computational Social Science, 17-20 July, virtual conference — Member of the Programme Committee.

"Bridging micro and macro through social network analysis and agent-based computational simulations", session at the 2020 Sunbelt Virtual Conference, 13-17 July — Co-organizer with Andreas Flache, Gianluca Manzo, and Károly Takács.

MABS 2020 – The 21<sup>st</sup> International Workshop on Multi-Agent-Based Simulation, 9-13 May, Auckland, New Zealand — Member of Programme Committee.

2<sup>nd</sup> PEERE International Conference on Peer Review 2020, 11-13 March, Universitat de València, Valencia, Spain — Member of Programme Committee. [Cancelled]

"Social Network Analysis for the study of socio-economic phenomena", session at the *IV Convegno SISEC - Conference of the Italian Society of Economic Sociologists*, 30 January - 1 February, University of Turin, Turin, Italy — Co-organizer with Alberta Andreotti, Niccolò Casnici, and Antonello Podda.

2019 Social Simulation Conference 2019, 23-27 September, Johannes Gutenberg University Mainz, Mainz, Germany— Member of Programme Committee.

"Agent-based models: Linking complex social phenomena to social network dynamics", session at the  $4^{th}$  European Conference on Social Networks, 9-12 September, ETH Zurich / University of Zurich, Zurich, Switzerland — Co-organizer with Andreas Flache and Károly Takács.

17<sup>th</sup> International Conference on Scientometrics & Informetrics, 2-5 September, Sapienza University of Rome, Rome, Italy — Member of Scientific Committee.

 $5^{th}$  International Conference on Computational Social Science, 17-20 July, University of Amsterdam, Amsterdam, The Netherlands — Member of Programme Committee.

MABS 2019 - 20<sup>th</sup> International Workshop on Multi-Agent-Based Simulation, 13-17 May, Montreal, Canada — Member of Programme Committee.

Social Simulation Conference 2018, 20-24 August, Stockholm University, Stockholm, Sweden — Member of Programme Committee.

2018

"Social Behavior, Network Dynamics and Collective Outcomes in Complex Societies", session at the XIX ISA World Congress of Sociology, 15-21 July, Toronto, Canada — Co-organizer with Flaminio Squazzoni.

MABS 2018 - 19<sup>th</sup> International Workshop on Multi-Agent-Based Simulation, 14-15 July, Stockholm, Sweden — Member of Programme Committee.

"Agent-based models: Linking complex social phenomena to social network dynamics", session at the XXXVIII Sunbelt Conference of the International Network of Social Network Analysis, 26 June - 1 July, Utrecht University, Utrecht, The Netherlands — Co-organizer with Filip Agneessens, Jennifer Badham, and Andreas Flache.

PEERE International Conference on Peer Review, 7-9 March, Italian National Research Council, Rome, Italy — Member of Programme Committee.

# Research projects

- 2018 2020 'SOCIABLE The Brescia nexus: SOCIal infrastructure and cognitive ABiLitiEs in an ageing population', Partners: Casa di Industria Foundation, IRCCS Centro San Giovanni di Dio Fatebenefratelli, Socialis Research Centre.
- 2017 2018 'Verso un'economia circolare', Partners: Fondazione Cogeme Onlus, Kyoto Club, Fondazione Nymphe.
- 2015 2018 'PEERE New Frontiers of Peer Review', EU-COST Action TD1306.

# Grants and scholarships

EU-COST Action TD1306 Short-Term Scientifc Mission, "Rating and ranking in peer-reviewed journals".

3-year PhD scholarship in Economic Sociology and Labour Studies, Cariplo Foundation and University of Brescia (Italy).

# Teaching

### Principal instructor

- Social Network Analysis, Graduate School in Social and Political Sciences, University of Milan, Milan (Italy) (30 hours, English).
- Introduction to Research, course for Ph.D. students, University of Brescia, Brescia (Italy), 17 September 10 October (15 hours, English, Instructor).
- Introduction to Research, course for Ph.D. students, University of Brescia, Brescia (Italy), 14 September 4 October (15 hours, English, Instructor).

#### Summer schools

- Behave Summer School in Agent-Based Modelling for Social Scientists, University of Milan, online, 7-16 September (36 hours, English, member of the teaching staff).
- Social Network Analysis Lab with R, III Scuola SISEC 2019 (Summer School of the Society of Italian Economic Sociologists), Pula, Italy, 30 September 5 October (10 hours, Italian, Instructor).

Behave Summer School in Agent-Based Modelling for Social Scientists, University of Milan, Brescia (Italy), 2-11 September (65 hours, English, member of the teaching staff).

Introduction to Social Network Analysis, ECSR-CCA-NASP Spring School "New and Old Data: Cutting-Edge Approaches to Quantitative Social Research", Collegio Carlo Alberto, Turin (Italy), 25-29 March (2 hours, English, Instructor).

Behave Summer School on Agent-Based Modelling for Social Scientists, University of Milan, Brescia (Italy), 3-7 September (35 hours, English, Member of teaching staff).

2017

"GECS Summer School in Agent-Based Modelling for Social Scientists", University of Brescia, Italy, 4-8 September (20 hours, English, Teaching Assistant).

"GECS Summer School in Agent-Based Modelling for Social Scientists", University of Brescia, Italy, 20-24 June (20 hours, English, Teaching Assistant).

### Teaching staff

Sociology, undergraduate, Faculty of Political, Economic and Social Sciences, University of Milan, Milan (Italy) (20 hours, Teaching Assistant).

Behavioural Sociology, graduate, Faculty of Political, Economic and Social Sciences, University of Milan, Milan (Italy) (12 hours, Teaching Assistant).

Sociology, undergraduate, Faculty of Political, Economic and Social Sciences, University of Milan, Milan (Italy) (20 hours, Teaching Assistant).

"Agent-Based Modelling", PhD Programme in Economic Sociology and Labour Studies, University of Brescia, Italy (20 hours, English, Teaching Assistant).

## Professional service

Editorial board member, Sociologica – International Journal for Sociological Debate.

### Reviewer for:

Computational and Mathematical Organization Theory, Frontiers in Sociology, Heliyon, Journal of Artificial Societies and Social Simulation, Journal of Ethnic and Migration Studies, Learned Publishing, Research Evaluation, Scientometrics, Social Networks.

Public reviews on Publons.

# Advanced training

Jun, 2018 "Simplifying egocentric network analysis using egor", XXXVIII Sunbelt Conference Workshop, Utrecht, The Netherlands.

May, 2017 "Multilevel longitudinal network analysis", ARS '17 - Sixth International Workshop on Social Network Analysis, Naples, Italy.

Jun, 2016

- "Temporal Exponential Random Graph Models (tERGM)", 2<sup>nd</sup> European Social Network Conference Workshop, Paris, France.
- Jun, 2016 "The analysis of longitudinal social network data using *RSiena*", 2<sup>nd</sup> European Social Network Conference Workshop, Paris, France.
- Apr, 2016 "Exponential family Random Graph Modeling (ERGMs) using *statnet*", XXXVI Sunbelt Conference Workshop, Newport Beach (CA), USA.
- Apr, 2016 "From words to networks: Text-based/semantic network analysis", XXXVI Sunbelt Conference Workshop, Newport Beach (CA), USA.
- Aug, 2015 "Advanced social network analysis: Selection mechanisms and social structure", Essex Summer School in Social Science Data Analysis, University of Essex, UK.
- Aug, 2015 "Mathematics for social scientists II", Essex Summer School in Social Science Data Analysis, University of Essex, UK.
- Sep, 2014 "ESSA Summer School in Social Simulation", ESSA European Social Simulation Association, Autonomous University of Barcelona, Spain.
- Jun, 2014 "PhD Course in Microsociology and Social Psychology", Department of Sociology, Linnæus University, Växjö, Sweden.
- Oct, 2012 "NetLogo EduLABSS School", LABSS Laboratory for Social Simulation, ISTC/CNR, Rome, Italy.

# Membership

INSNA – International Network for Social Network Analysis SISEC – Società Italiana di Sociologia Economica

# Other working experience

- 2015 Business consultant, Goetz Partners (Milan, Italy).
- 2012 2014 Business consultant, L.E.K. Consulting (Milan, Italy).
- $_{\rm Jun,\ 2012}$   $Junior\ Researcher,\ Adriano\ Olivetti\ Foundation$  Economy & Society Division  $_{\rm Jan,\ 2013}$  (Ivrea, Italy).

# Languages

Italian native

English C2 (IELTS 8.5) German C1 (TestDaf)

French A2 Spanish A2

# Computer skills

OS Linux, Mac OS, Windows

ABM Simulation NetLogo

Data Analysis R (tidyverse), Stata, SPSS

Data Visualization ggplot2

Programming Python (basic), Pascal (basic)

Social Network Analysis Gephi, igraph, PNet family, RSiena, sna, statnet,

UCINET

Productivity LibreOffice, IATEX, Markdown, MS Office, OpenOffice,

Pandoc, Prezi

Version control git

Web WordPress, HTML (basic)