

# CURRICULUM VITAE ET STUDIORUM

*Guido Fioretti*  
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**CURRENT POSITION:** Associate Professor of Organization Science at the University of Bologna, Department of Management. Tenured position.

**RESEARCH INTERESTS:** Social and cognitive sciences in individual and collective decision-making.

**TOOLS:** Agent-based models, mathematical network analysis, neural networks, evidence theory, cognitive maps.

## Personal Data:

Born in Terni (Italy) on 23.01.64. Conscription: Civil Service with Caritas.

## Foreign Languages:

Good command of English (IELTS 7.5/9) and German (KDS), basics of French.

## Programming Languages:

C/C++/ObjC, Gauss, Java, NetLogo, Pascal.

## MSc:

In *Electrical Engineering* with a thesis on mathematical economics at Rome University "La Sapienza" on July 15<sup>th</sup>, 1991. Marks average: 25/30. Thesis mark: 10/10. Graduation mark: 102/110.

## Other Courses:

1. *Economic Theory* for 1<sup>st</sup>-year PhD students, Rome University "La Sapienza" 1991/92.
2. *Theories and Mathematical Models for Systems Analysis and Control*, Rome University "La Sapienza" 1992/93.
3. Seminars on *Organizational Action*, University of Milan 2006/07 and 2008/09.

## PhD:

In *Political Economy* at Rome University "La Sapienza", Nov. 1<sup>st</sup> 1991 to Nov 11<sup>th</sup> 1995. Financial support by "La Sapienza". Years 1994 and 1995 at the University of Stuttgart (Dep. of Economics + Dep. of Physics).

## Summer Schools:

1. *International Institute for Applied Systems Analysis*. Laxenburg, Young Scientists Summer Program. June 1<sup>st</sup> to Aug 31<sup>st</sup> 1996.
2. *Santa Fe Institute*, Santa Fe, Complex Systems Summer School. May 31<sup>st</sup> to June 26<sup>th</sup> 1998.
3. *International Centre for Theoretical Physics*. Trieste, EXYSTENCE Thematic Institute (networks, dynamics, sociophysics and economics). May 6<sup>th</sup> to June 1<sup>st</sup>, 2002.

4. *Max Planck Institute for the Physics of Complex Systems*. Dresden, EXYSTENCE Thematic Institute (from many-particle physics to multi-agent systems). August 1<sup>st</sup> to September 4<sup>th</sup>, 2004.
5. *University of Bologna and University of Groningen*. Bertinoro, Longitudinal Network Analysis with SIENA. July 11<sup>th</sup> to 15<sup>th</sup>, 2011.

#### Post-Doctoral Funded Research:

- On the use of neural networks to model investment decision-making. University of Stuttgart (Dep. of Economics + Dep. of Physics). Two CNR–DFG joint fellowships, Sept 15<sup>th</sup> to Dec 14<sup>th</sup> 1995 and Sept 15<sup>th</sup> to Dec 14<sup>th</sup> 1996.
- Economic entries of the *Lexicon of Complexity*. INO, Florence, 1996.
- Historical origin of non-numerical probabilities. Post-doc fellowship at the University of Florence. Jan 15<sup>th</sup> 1997 to Jan 14<sup>th</sup> 1999.
- Mathematical models of information exchange. University of Stuttgart, lecturer Jan 15<sup>th</sup> 1999 to July 31<sup>st</sup> 1999 and CNR-DFG joint fellowship Sept 1<sup>st</sup> 1999 to Nov 30<sup>th</sup> 1999.
- The structure of information fluxes in Prato. IASG, Florence, Dec 1<sup>st</sup> 1999 to July 31<sup>st</sup> 2000.
- Agent-based modelization of information fluxes. ICER, Turin, Sept 1<sup>st</sup> 2000 to July 31<sup>st</sup> 2001.
- Financial fragility and credit rationing. University of Siena, Feb 20<sup>th</sup> 2002 to Oct 20<sup>th</sup> 2003 and Jul 25<sup>th</sup> to Oct 26<sup>th</sup> 2004.
- Bounded rationality constraints on the size of human groups. Consequences for organization science. Scuola Superiore S. Anna and CNR (Institute of Computer Science), Pisa, June 1<sup>st</sup> 2002 to May 31<sup>st</sup> 2003.
- Modelization of strategic interactions in clusters of firms. Contract FIRB, University of Bologna, Dep. of Information Science and Dep. of Management Science, Nov 3<sup>rd</sup> 2005 to Sep 30<sup>th</sup> 2006.

#### Funds obtained as Faculty Member:

- PRIN 2008 (funded by the Italian Ministry of Scientific Research) on *Network Analysis*, coordinated by M. Meneguzzo, University of Rome “Tor Vergata”.
- Post-Doctoral position on *Modelization of Productive Plants by means of Agent-Based Models* from Aug 1<sup>st</sup> 2011 to Oct 31<sup>st</sup> 2012. Funding: University of Bologna, Dep. of Management Science + € 5,000 external contributions.
- Post-Doctoral position on *Modelization of Productive Plants by means of Agent-Based Models* from Oct 23<sup>rd</sup> 2013 to Jun 30<sup>th</sup> 2014. Funding: € 15,400 external contributions.
- DAAD fellowship spent at the University of Hohenheim, 2015, May 1<sup>st</sup> to 30<sup>th</sup>.
- Research funds provided by the University of Bologna depending on scientific productivity, since 2008.

#### Invited Papers at International Conferences and Workshops:

1. Dutch Ministry of Economic Affairs. *Workshop on the Methodology of Industrial Clusters Analysis*. Rotterdam, May 3-4<sup>th</sup>, 2002.
2. University of Padua. *Shackle's Heritage in Economics: Micro and Macro Aspects*. Padua, May 19-20<sup>th</sup>, 2006.
3. University of Bonn. *Johannes von Kries' Conception of Probability, its Roots and Impact*. Bonn, September 13-14<sup>th</sup>, 2012.
4. University of Bournemouth, AISB Workshop (Keynote Speaker). *Emergent Organizations*. Bournemouth, Jan 27-28<sup>th</sup>, 2014.

### Main Teaching Experiences:

1. *Organization Science* (in Italian). University of Bologna, School of Economics, Management and Statistics from 2006/07 to 2018/19, Medical School 2012/13 to 2013/14 and 2017/18 to 2019/20, School of Computer Science, 2014/15 to 2016/17.
2. *Human Resource Development* (in English and Italian). University of Bologna, School of Economics, Management and Statistics, 2008/09 to 2019/20.
3. *Vision, Decision and Leadership* (formerly *Organizational Behavior, Business Narratives and Leadership*) (in English). Aarhus Summer University, 2015-20.
4. *Agent-Based Modelling of Organizations* (in English and German). University of Bozen-Bolzano, School of Economics, 2010/11 and 2011/12; University of Greenwich Summer School, summer 2013.

### Research Topics:

- Uncertainty and non-numerical probabilities according J. Von Kries, and their influence on the economics of J.M. Keynes;
- The forgotten decision theory of G.L.S. Shackle and the mathematics of uncertain reasoning of G. Shafer;
- A computational model of postponing decision-making, with applications to credit rationing and investment decisions;
- Empirical studies of innovation, a field where the above investigations on non-trivial issues in decision-making are very relevant;
- An agent-based revisit of March's *Garbage Can Model of Organizational Choice*, and conceptual linkages between this model and more recent streams of research;
- Firms' recognition of the potentialities of innovations: modelization by means of unsupervised neural networks;
- Miscellanea on organizations understood as self-organizing networks: (1) The production function; (2) Vacancy chains; (3) Flexibility in organizations; (4) Matrix structures;
- The determinants of the slope of the organizational learning curve: mathematical insights and numerical simulations;
- Variety of products in Prato and other industrial districts, empirical investigations and an agent-based model;
- An agent-based model of knowledge networks among small firms, where success accrues to inventions that bridge between existing items of knowledge;
- The maximum size of human groups, depending on communication structures;
- Methodological papers on agent-based modeling in organizational research.