

## SANDRA FORTINI

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## CONTACTS

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## PREVIOUS POSITIONS

*Researcher at Bocconi University* 1995 – 2003  
*Researcher at the Institute for the Applications of Mathematics and Informatics, Italian Council of Research, Milano* 1994 – 1995  
*Research Assistant at the Institute for the Applications of Mathematics and Informatics, Italian Council of Research, Milano* 1990 – 1993

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## EDUCATION

*M.Sc. in Applied Stochastic Systems with Distinction, University College of London* 1993  
*Laurea in Matematica cum Laude, Università degli Studi di Milano* 1989

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## EDITORIAL ACTIVITY

Associate Editor of *Sankhya, Series A, Probability and Mathematical Statistics*.

<http://sankhya.isical.ac.in/index.html>

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## SELECTED PUBLICATIONS

- “On a notion of partially conditionally identically distributed sequences” with S. Petrone and P. Sporysheva. *Stochastic Processes and their Applications*. To appear. DOI: 10.1016/j.spa.2017.06.008.
- “Predictive Characterization of Mixtures of Markov chains” with S. Petrone. *Bernoulli* 2017, Vol. 23, No. 3, 1538-1565.
- “Predictive Distribution (de Finetti’s View)” with Petrone S. *Wiley StatsRef*. 2016. DOI: 10.1002/9781118445112.stat07831.
- “Hierarchical Reinforced Urn Processes” with Petrone S. *Statistics & Probability Letters*. 82, 1521 - 1529. 2012.
- “Central Limit Theorem with Exchangeable Summands and Mixtures of Stable Laws as Limits” with Ladelli L. and Regazzini E. *Bollettino dell’Unione Matematica Italiana*. 9, IV, 515 - 542. 2012.
- “Predictive Construction of Priors in Bayesian Nonparametrics” with Petrone S. *Brazilian Journal of Probability and Statistics*. 26, 4, 423 - 449. 2012.
- “Recursive Equations for the predictive distributions of some determinantal processes” with Cifarelli D. M.. *Statistics & Probability Letters* 81, 8-15. 2011.
- “A Poisson Approximation for Coloured Graphs Under Exchangeability” with Cerquetti A. *Sankhyā* 68 183-197. 2006.
- “A note on one-dependent trigonometric determinantal probability measures” with Cifarelli D.M. *SIS – Atti della XLII Riunione Scientifica*. 2006.

- “A characterization for mixtures of Semi Markov processes” with Epifani I. and Ladelli L. *Statistics & Probability Letters* **60** (4): 445-457. 2002.
  - “On mixtures of distributions of Markov chains” with Ladelli L., Petris G. and Regazzini E. *Stochastic Processes and their Applications*, **100**, 147-165. 2002.
  - “On the use of the concentration function in Bayesian robustness” with Ruggeri F. *Robust Bayesian Analysis. Lecture Notes in Statistics*, pp.109-126. Springer-Verlag. New York. 2000.
  - “Exchangeability, predictive distributions and parametric models” with Ladelli L. and Regazzini E. *Sankhya, A, Vol 62-1*, pp. 86-109. Calcutta 2000.
  - “On parametric models for invariant probability measures” with Berti P., Ladelli L. and Regazzini E. *Quaderni di Statistica. Portici*, Vol. 2, pp. 39-57; *addendum in Vol. 3* pp. 231-232. 2000.
  - “Differential properties of the concentration function” with Ruggeri F.. *Sankhya, A, Vol. 59*, pp. 345-364. 1997.
  - “Discussion of "Bayesian robustness for classes of bidimensional priors with given marginals" by B. Liseo, E. Moreno e G. Salinetti. *Lecture Notes in Math. Stat., IMS*, Vol. **29**, pp. 116-117. Hayward, 1996.
  - “A central limit problem for partially exchangeable random variables” with Ladelli L. and Regazzini E. *Teor. Verojatnost. i Primenen. (Theory Probab. Appl.)*, Vol. **41**, Num. 2, pp. 353-379. 1996.
  - “Concentration function and sensitivity to the prior” with Ruggeri F. *Journal of the Italian Statistical Society*, Vol. **4**, pp. 283-297. 1995.
  - “On defining neighbourhoods of measures through the concentration function” with Ruggeri F. *Sankhya, serie A, Vol. 56, Parte 3*, pp. 444 - 457. 1994.
  - “Concentration functions and Bayesian robustness” with Ruggeri F. *J. Stat. Plann. Inference*, Vol. **40**, Num. 2/3, pp. 205 - 220. 1994.
  - “Some results on the number of coincidences under exchangeability” with Cerquetti A. *SIS – Atti della XLII Riunione Scientifica*. 2004.
  - “Concentration function and coefficients of divergence for signed measures” with Ruggeri F. *J. Ital. Stat. Soc. Vol. 2, No. 1*, pp. 17 - 34. 1993.
  - “Spherical symmetry: an elementary justification” with Eaton M. and Regazzini E.. *J. Ita. Stat. Soc.*, Vol. **2**, No. 1, pp. 1 -16. 1993.
  - “Non monotonicity of approximation in LP”. *Istituto Lombardo (Rend. Sc.) A* **124** pp. 73-83.1990.
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## SCIENTIFIC SOCIETIES MEMBERSHIP

- Institute of Mathematical Statistics (IMS)
  - Società Italiana di Statistica (SIS)
  - Unione Matematica Italiana (UMI)
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## INSTITUTIONAL ACTIVITIES

- Member of the Department Council 2010 – 2011
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## CURRENT TEACHING

### PhD (in English)

- Probability I 2005 –
- Introduction to Probability 2010-
- Stochastic processes I 2017 –

### M.Sc.

- Financial Econometrics and Empirical Finance 2007 –

### Bachelor (Course Director)

- Quantitative Methods for Finance, *Bachelor of Economics and Finance* 2007 –

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## PREVIOUS TEACHING AT BOCCONI

### PhD (in English)

- Probability II 2005 – 2009
- Introduction to Statistics 2006 – 2010

### Bachelor

- Sample Surveys, *Bachelor for Economics and Management for Arts, Culture and Communication, course director* 2005 – 2007
- Probability 1999 – 2003
- Statistics 1997 – 2002
- Mathematics 2002 – 2004

### Master Programs (in English)

- Basic Probability for Finance, *Master of Quantitative Finance and Risk Management* 1999 – 2004
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## OTHER TEACHING ACTIVITIES

- Statistics. *Corso di Gestione Aziendale, Libero Istituto Universitario Carlo Cattaneo, 1991 – 1992*
  - Mathematical Analysis Exercises, *Bachelor in Engineering, Politecnico di Milano 1989 – 1992*
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## LECTURE NOTES

- “Modelli Statistici per le Applicazioni Finanziarie”. *Lecture Notes - Metodi Quantitativi per la Valutazione Finanziaria. Le Dispense del Pellicano – Egea. 2010*
- “Probability. Lecture Notes - PhD in Economics and Finance”. *PhD School. Bocconi University. 2010*
- “Statistics Exercises and Solutions, PhD in Economics and Finance” with *May C and Simoni A. Bocconi PhD School. 2010.*
- “Statistics Lecture Notes - PhD in Economics, Finance and Management”. *PhD School. Bocconi University. 2009.*
- “Appunti sulla Stima dei Modelli Lineari Lecture Notes - Metodi Quantitativi per le Applicazioni Finanziarie CLEF”. *Egea, 2008*
- “Esercizi di Probabilità” with *Cerquetti A. [www.unibocconi.it](http://www.unibocconi.it) 2004*