

Daniele Durante: Curriculum Vitae

CONTACT INFORMATION	Department of Decision Sciences Bocconi University Via Röntgen, 1, 20136 Milan	✉: daniele.durante@unibocconi.it web: https://danieledurante.github.io/web/
RESEARCH INTERESTS	Network Science, Bayesian Methods, Bayesian Computation, Bayesian Nonparametrics, High-Dimensional Inference, Statistical Learning, Categorical Data, Shrinkage	
CURRENT ACADEMIC POSITIONS	Assistant Professor Bocconi University, Department of Decision Sciences	09/2017 — Present
	Research Affiliate Bocconi Institute for Data Science and Analytics [BIDSA]	09/2017 — Present
PAST ACADEMIC POSITIONS	Post-Doctoral Research Fellow University of Padova, Department of Statistical Sciences	02/2016 — 08/2017
	Adjunct Professor Ca' Foscari University, Department of Economics and Management	12/2015 — 12/2016
	Visiting Research Scholar Duke University, Department of Statistical Sciences	03/2014 — 02/2015
EDUCATION	University of Padova, Department of Statistical Sciences	
	Ph.D. in Statistical Sciences. Department of Statistical Sciences	2013 — 2016
	<ul style="list-style-type: none">• Ph.D. Thesis Topic: <i>Bayesian nonparametric modeling of network data</i>• Advisors: Bruno Scarpa and David B. Dunson	
	M.Sc. in Statistical Sciences. Department of Statistical Sciences	2010 — 2012
AWARDS	B.Sc. in Statistics, Economy and Finance. Department of Statistics	2007 — 2010
	Leonardo da Vinci Medal. Italian Ministry of University and Research	2020
	Bocconi Research Excellence Award	2020
	Bocconi Innovation in Teaching Award	2020
	National Scientific Qualification for Associate Professor in Statistics [13/D1]	2018
	Mitchell Award. International Society for Bayesian Analysis	2018
	Doctoral Thesis Award in Statistics. Italian Statistical Society	2018
	Theory-Methods Editor's Invited Paper [JASA]. American Statistical Association	2017
EDITORIAL ACTIVITY	Byar Award. Biometrics Section. American Statistical Association	2015
	Lifetime Members Junior Award. International Society for Bayesian Analysis	2014
	Laplace Award. Bayesian Statistical Sciences Section. American Statistical Association	2013
	Associate Editor	
	Biometrika	08/2019 — Present
	Journal of Computational and Graphical Statistics	09/2018 — Present
Referee		
Journal of the Royal Statistical Society, B; Annals of Statistics; Annals of Applied Statistics; Journal of the Royal Statistical Society, C; Biometrics; Biometrika; Bayesian Analysis; Journal of the American Statistical Association; Computational Statistics & Data Analysis; Statistics and Computing; Journal of Computational and Graphical Statistics; Journal of Multivariate Analysis; Network Science; Journal of Machine Learning Research; Statistica Neerlandica; Sankhya A; Statistical Science; NeurIPS.		

Positions in Scientific Societies

Member of the IMS committee on nominations. Institute of Mathematical Statistics	2020
Chair of the J-ISBA Section. International Society for Bayesian Analysis	2018
Chair of the Y-SIS Section. Italian Statistical Society	2018
Laplace Award committee member. American Statistical Association	2018
Chair-Elect of the J-ISBA Section. International Society for Bayesian Analysis	2017
Secretary of the Y-SIS Section. Italian Statistical Society	2017

Membership to Scientific Societies

American Statistical Association [ASA], International Society for Bayesian Analysis [ISBA], Italian Statistical Society [SIS], Institute of Mathematical Statistics [IMS].

Organization of Scientific Events

Chair of Stats under the Stars 5. Milan	2019
Chair of Stats under the Stars 1. Padova	2015
Organizing committee of Stats under the Stars 2. Salerno	2016
Organizing committee of BAYSM2018 meeting. Warwick	2018
Organizing committee of Statistica e Data Science per il Business. Padova	2015
Local committee of SIS2019 Conference. Milan	2019
Scientific committee of SIS2018 Conference. Palermo	2018
Scientific committee of StartUpResearch. Siena	2017

Sessions Organized at Conferences

Session organized at COMPSTAT2020. Bologna	2020
Session organized [with J-ISBA] at IV COBAL. Lima	2019
Session organized [with Y-SIS] at ERCIM2018. Pisa	2018
Session organized [with J-ISBA] at ISBA2018. Edinburgh	2018
Session organized [with J-ISBA] at JSM2017. Baltimore	2017

Outreach Videos and Multimedia Projects

The Geometry of Relationships. TEDx talk. Montebelluna	2018
My Statistician Friend. International Year of Statistics ASA. United States	2013
The Statistical Calendar. ISTAT. Rome	2012

Positions in Bocconi Boards and Committees

Coordinator of the DEC Seminars Series	2019 — Present
Coordinator of the BIDS Seminars Series	2018 — Present
Program committee member of the MSc in DS&BA	2018 — Present
Faculty board member of the Ph.D. in Statistics	2017 — Present
Mentor at the IGIER-BIDS Visiting Student Initiative	2019 — Present
Doctoral thesis committee member of the Ph.D. in Statistics: Marta Crispino [2018], Michele Peruzzi [2019], Amir Khorrami Chokami [2019] and Tommaso Rigon [2020]	

Bocconi Students Supervised

Niccolò Anceschi [Ph.D.], Sirio Legramanti [Ph.D.], Augusto Fasano [Ph.D.], Sharlin Utke [MSc], Edoardo Manieri [MSc], Pierre Cattin [MSc], Marta Guidolin [MSc], Mario Damiano Russo [MSc], Alessandro Zito [MSc], Lorenzo Mussetti [BSc], Stefano Moneta [BSc], Guglielmo Gattiglio [BSc], Leonardo Natale [BSc].

Bocconi Events and Projects

Invited speaker for the Bocconi Snack News project [Bologna]	2019
Invited speaker for the Bocconi Ph.D. BEAT program	2019
Chair of the hackathon Stats under the Stars 5	2019

Bocconi Innovation in Teaching

In 2019, I have proposed and then developed in collaboration with BUILT a platform for online data-analytics challenges that can be used by Bocconi students as a gaming and learning experience in the context of the Data Science courses. See **Bocconi Data Science Challenges**.

Collaborations with the Bocconi Magazine VIA SARFATTI 25

L'algoritmo della luna che prevede il futuro [N.10, 2019], Come studiare le reti di connessione [N.03, 2018], Il cervello? Un social network biologico. Comprenderlo aiuterà l'AI [N.12, 2017]

FUNDINGS AND GRANTS

Unit coordinator (CO-PI) of the PRIN [MIUR] project “Unfolding the SEcrets of LongEvity: Current Trends and future prospects [SELECT]”. PI: Stefano Campostrini **2019 — 2021**

Member of the research group of the ERC project “Individual Decisions and Macroeconomic Robustness [INDIMACRO]”. PI: Massimo Marinacci **2017 — 2019**

Member of the research group of the project funded by the University of Padova “Bayesian Inference on Brain Network Data”. PI: Bruno Scarpa **2016 — 2017**

Member of the research group of the ONR project “Bayesian Learning for High-Dimensional Low Sample Size Data”. PI: David Dunson **2014 — 2017**

PUBLICATIONS

Citations from Google Scholar • TOTAL: 407 • — • H-INDEX: 10 • — • I10-INDEX: 10

Refereed Journals

1. Legramanti S., Rigon, T. and **Durante, D.** (2021) Bayesian testing for exogenous equivalence structures in stochastic block-models. *Sankhya A*. In Press.
2. Rigon, T. and **Durante, D.** (2021) Tractable Bayesian density regression via logit stick-breaking priors. *Journal of Statistical Planning and Inference*, 211, 131–142.
3. Legramanti, S., **Durante, D.** and Dunson, D. B. (2020) Bayesian cumulative shrinkage for infinite factorizations. *Biometrika*, 107, 745–752.
4. **Durante, D.** (2019) Conjugate Bayes for probit regression via unified skew-normal distributions. *Biometrika*, 106, 765–779.
5. **Durante, D.** and Rigon, T. (2019) Conditionally conjugate mean-field variational Bayes for logistic models. *Statistical Science*, 34, 472–485.
6. **Durante, D.**, Canale, A. and Rigon, T. (2019) A nested expectation-maximization algorithm for latent class models with covariates. *Statistics & Probability Letters*, 146, 97–103.
7. Rigon T., **Durante, D.** and Torelli, N. (2019) Bayesian semiparametric modelling of contraceptive behavior in India via sequential logistic regressions. *Journal of the Royal Statistical Society: Series A*, 182, 225–247.
8. **Durante, D.** and Dunson, D. B. (2018) Bayesian inference and testing of group differences in brain networks. *Bayesian Analysis*, 13, 29–58.
9. Canale, A., **Durante, D.** and Dunson, D. B. (2018) Convex mixture regression for quantitative risk assessment. *Biometrics*, 74, 1331–1340.
10. Russo, M., **Durante, D.** and Scarpa, B. (2018). Bayesian inference on group differences in multivariate categorical data. *Computational Statistics & Data Analysis*, 126, 136–149.
11. **Durante, D.**, Dunson, D. B. and Vogelstein, J. T. (2017) Nonparametric Bayes modeling of populations of networks. *Journal of the American Statistical Association*, 112, 1516–1530 (with discussion).
12. **Durante, D.**, Mukherjee, N. and Steorts, R. C. (2017) Bayesian learning of dynamic multilayer networks. *Journal of Machine Learning Research*, 18, 1–29.
13. Wang, L., **Durante, D.**, Jung, R. E. and Dunson, D. B. (2017) Bayesian network-response regression. *Bioinformatics*, 33, 1859–1866.
14. **Durante, D.** (2017) A note on the multiplicative gamma process. *Statistics & Probability Letters*, 122, 198–204.
15. **Durante, D.**, Paganin, S., Scarpa, B. and Dunson, D. B. (2017) Bayesian modelling of networks in complex business intelligence problems. *Journal of the Royal Statistical Society: Series C*, 66, 555–580.
16. **Durante, D.** and Dunson, D. B. (2016) Locally adaptive dynamic networks. *Annals of Applied Statistics*, 10, 2203–2232.
17. **Durante, D.** and Dunson, D. B. (2014) Nonparametric Bayes dynamic modelling of relational data. *Biometrika*, 101, 883–898.
18. **Durante, D.** and Dunson, D. B. (2014) Bayesian dynamic financial networks with time-varying predictors. *Statistics & Probability Letters*, 93, 19–26.
19. **Durante, D.**, Scarpa, B. and Dunson, D. B. (2014) Locally adaptive factor processes for multivariate time series. *Journal of Machine Learning Research*, 15, 1493–1522.

International Conference Proceedings, Book Chapters and Discussions [PEER-REVIEWED]

19. **Durante, D.** and Guindani, M. (2020) Bayesian methods in brain networks. *Wiley StatsRef-Statistics Reference Online*, 1–10.
20. Aliverti, E. and **Durante, D.** (2019) Spatial modeling of brain connectivity data via latent distance models with nodes clustering. *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 12, 185–196.
21. Canale, A., **Durante, D.**, Paci, L. and Scarpa, B. (2018) Connecting statistical brains. *Significance*, 15, 38–40.
22. **Durante, D.** (2017) Discussion of “Sparse graphs using exchangeable random measures”. *Journal of the Royal Statistical Society: Series B*, 79, 55–56.
23. **Durante, D.** and Dunson, D.B. (2014) Bayesian logistic Gaussian process models for dynamic networks. *AISTAT Conference Proceedings*, 33, 194–201.
24. **Durante, D.**, Scarpa, B. and Dunson, D. B. (2013) Locally adaptive Bayesian multivariate time series. *NIPS Conference Proceedings*, 26, 1664–1672.

National Conference Proceedings, Book Chapters and Discussions [PEER-REVIEWED]

25. **Durante, D.** and Dunson, D. B. (2016) Bayesian nonparametric modeling of dynamic international relations. *Proceedings of the XLVIII Conference of the Italian Statistical Society*.
26. **Durante, D.** and Dunson, D. B. (2015) Bayesian regression with network predictors. *Proceedings of the XLVII Conference of the Italian Statistical Society*.
27. **Durante, D.**, Vidotto, D. and Vettori, S. (2015) La bussola del ricercatore statistico. In Campostrini S., Ghellini, G. and Tuzzi, A. [Eds.] *Con Senso di Misura, Riflessi Statistici da Alcuni Allievi di Lorenzo Bernardi*. CLEUP, 25–36.
28. **Durante, D.** (2014) Analysis of Italian financial market via Bayesian dynamic covariance models. In Lanzarone, E. and Ieva, F. [Eds.] *The Contribution of Young Researchers to Bayesian Statistics*. Springer, 63, 171–177.
29. **Durante, D.** (2012) Qualitative latent variables: a comparison between SEM and LCA. *Quaderni di Statistica*, 14, 97–100.

Edited Books

1. Argiento, R., **Durante D.** and Wade, S. [Eds.] (2019) Bayesian Statistics and New Generations. *Springer Proceedings in Mathematics and Statistics*, Springer.
2. Canale, A., **Durante D.**, Paci, L. and Scarpa, B. [Eds.] (2018) Studies in Neural Data Science. *Springer Proceedings in Mathematics and Statistics*, Springer.

Manuscripts Under Review and In Preparation

1. Legramanti S., Rigon, T., **Durante, D.** and Dunson, D.B. (2020) Extended stochastic block models. *arXiv:2007.08569* [In review]
2. Cao, J., **Durante, D.** and Genton, M. (2020) Scalable computation of predictive probabilities in probit models with Gaussian process priors. *arXiv:2009.01471* [In review]
3. Fasano, A., and **Durante, D.** (2020) A class of conjugate priors for multinomial probit models which includes the multivariate normal one. *arXiv:2007.06944* [In review]
4. Fasano, A., **Durante, D.** and Zanella, G. (2020) Scalable and accurate variational Bayes for high-dimensional binary regression models. *arXiv:1911.06743* [In review]
5. Fasano, A., Rebaudo, G., **Durante, D.** and Petrone, S. (2019) A closed-form filter for binary time series. *arXiv:1902.06994* [In review]

PRESENTATIONS

Seminars

[2020] Department of Statistics, **Rice University**. USA [online]

[2019] Department of Statistics, Computer Science and Applications, **University of Florence**. Italy — Computer, Electrical and Mathematical Science and Engineering Division, **King Abdullah University of Science and Technology** [KAUST]. Saudi Arabia

[2018] Department of Computer and Information Science, **Linköping University**. Sweden — Department of Statistical Sciences, **University of Padova**. Italy

[2017] School of Mathematics and Statistics, **University College of Dublin**. Ireland — Department of Statistical Science, **Duke University**. USA — Department of Statistical Science, **University College of London**. UK — Department of Decision Sciences, **Bocconi University**. Italy — School of Basic Sciences, **EPFL**. Switzerland

[2016] Department of Statistical Science, **Università Cattolica**. Italy — Department of Mathematics and Statistics, **Lancaster University**. UK

Invited Presentations

[2021] EAC-ISBA 2021 [International Society for Bayesian Analysis]. Dali, China
 [2021] ISNPS 2021 Symposium on Nonparametric Statistics. Paphos, Cyprus

[2019] IISA 2019 Conference [International Indian Statistical Association]. Mumbai, India
 [2019] ERCIM 2019 Conference on Computational and Methodological Statistics. London, UK
 [2019] 44th Spring Lecture Series. Fayetteville, USA

[2018] ERCIM 2018 Conference on Computational and Methodological Statistics. Pisa, Italy
 [2018] SIS 2018 Conference [Italian Statistical Society]. Palermo, Italy
 [2018] The Mathematics of Subjective Probability [MSP] 2018 Conference. Milan, Italy

[2017] IISA 2017 Conference [International Indian Statistical Association]. Hyderabad, India
 [2017] ERCIM 2017 Conference on Computational and Methodological Statistics. London, UK
 [2017] Workshop on Bayesian Inference and Stochastic Processes BISP10. Milan, Italy
 [2017] 11th Conference on Bayesian Nonparametrics BNP11. Paris, France
 [2017] ARS'17 International Workshop on Social Network Analysis. Naples, Italy

[2016] Workshop on Network Science and its Applications SNAW02. Cambridge, UK
 [2016] ISBA 2016 [International Society for Bayesian Analysis]. Sardinia, Italy
 [2016] SIS 2016 Conference [Italian Statistical Society]. Salerno, Italy

[2015] SIS 2015 Conference [Italian Statistical Society]. Treviso, Italy
 [2015] JSM 2015 Conference [American Statistical Association]. Seattle, USA
 [2015] ARS'15 International Workshop on Social Network Analysis. Capri, Italy

Contributed Presentations and Poster Presentations

[2018] ISBA 2018 Conference. Edinburgh, UK. [2014] ISBA 2014 Conference. Cancun, Mexico.
 [2014] SBP2014. Washington, USA. [2014] AISTAT 2014. Reykjavik, Iceland. [2013] JSM 2013 Conference. Montreal, Canada. [2013] BAYSM2013. Milan, Italy.

TEACHING EXPERIENCE

Excellence in Teaching Certificates

BEAT—Bocconi Excellence in Advanced Teaching by BUILT
 Bocconi University [2018 Edition]

Courses Taught

Bocconi University

Machine Learning [MSc]	2018 — Present
Topics in Statistical and Machine Learning [Ph.D.]	2017 — Present
Applied Survival (Duration) Data Analysis [Ph.D.]	2017 — 2018
Advanced Mathematics and Statistics – Module 2 [BSc]	2017 — 2018
Statistics – Module 1 (Theory and Methods) [BSc]	2017 — 2018

Ca' Foscari University

Data Analysis [BSc]	2015 — 2016
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University of Padova

Advanced Case Studies	2016 — 2017
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