# Marta Catalano

marta.catalano@warwick.ac.uk Department of Statistics, University of Warwick CV4 7AL, Coventry, United Kingdom +44(0)2476523869

https://martacatalano.github.io

### **Academic Positions**

Sep 2021 – Present	Harrison Early Career Assistant Professor, Statistics Department, Warwick University.
Feb 2021 – Sep 2021	Postdoctoral Researcher, University of Torino. Supervisor: Pierpaolo De Blasi.
Sep 2020 – Present	Research Affiliate, "de Castro" Statistics Initiative, Collegio Carlo Alberto, Torino.
Jun 2020 – Present	Research Affiliate, BayesLab, Bocconi Institute for Data Science and Analytics (BIDSA).

### Education

2016 - 2021	Ph.D. in Statistics, Bocconi University (Milan, Italy).
	Advisors: Antonio Lijoi and Igor Prünster.
	Thesis: On Complex Dependence Structures in Bayesian Nonparametrics: a Distance-based Approach.
2016 - 2017	Master in Big Data Analytics & Social Mining, University of Pisa and CNR (Italy). Grade: Excellent. Advisor: Paolo Ferragina. Thesis: Information Retrieval on Arpi Dataset.
2012 - 2015	M.Sc. in Mathematics, Sapienza University of Rome (Italy). Grade: 110/110 with honors.
	Advisors: Domenico Fiorenza and Paolo Papi. Thesis: Planar 2-algebras and Khovanov Homology.
2012 - 2013	Erasmus Program, École Normale Supérieure de Lyon (France).
2009 - 2012	B.Sc. in Mathematics, Sapienza University of Rome (Italy). Grade: 110/110 with honors.

## **Publications**

#### ▶ Preprints

1. Catalano, M., Lavenant, H., Lijoi, A., Prünster, I. (2022+). A Wasserstein Index of Dependence for Random Measures. Submitted.

#### ▶ Peer-reviewed Journals

- 1. Catalano, M., De Blasi, P., Lijoi, A., Prünster, I. (2022). Posterior Asymptotics for Boosted Hierarchical Dirichlet Process Mixtures. *Journal of Machine Learning Research*, 23 (80), 1-23.
- 2. Catalano, M., Lijoi, A., Prünster, I. (2021). Measuring Dependence in the Wasserstein Distance for Bayesian Nonparametric Models. *The Annals of Statistics*, 49 (5), 2916-2947. [Winner of the ASA-SBSS 2021 Student Paper Competition]
- Catalano, M., Lijoi, A., Prünster, I. (2020). Approximation of Bayesian Models for Time-to-event Data. Electronic Journal of Statistics, 14, 3366-3395.

### ▷ CONFERENCE PROCEEDINGS AND BOOK CHAPTERS

- 1. Catalano, M., Lijoi, A., Prünster, I. (2021). Transport Distances on Random Vectors of Measures: Recent Advances in Bayesian Nonparametrics. In *Advances in Probability and Mathematical Statistics*, Springer, 59-70.
- Catalano, M., Lijoi, A., Prünster, I. (2019). Bayesian Model Comparison based on Wasserstein Distances. Book of Short Papers of the Italian Statistical Society, Pearson, 167-172.

# Awards and Funding

$Finalist,2021\ L.J.\ Savage\ Award\ 'Theory\ and\ Methods'\ sponsored\ by\ ASA,\ ISBA\ and\ NBER-NSF.$
Travel grant, BNP 2022 Networking Event.
Travel grant, ISBA 2022 World Meeting.
j-ISBA Blackwell-Rosenbluth Award.
IMS New Researcher Travel Award.
ASA-SBSS 2021 Student Paper Competition.
Research fellowship (2 months), University of Torino.
Travel grant, WiML workshop co–located with NeurIPS 2020.
Special financial support (6 months), Bocconi University.
Travel grant, O'Bayes 2019 conference.
Travel grant, BNP12 conference.
Ph.D. scholarship (4 years), Bocconi University.
Merit-based partial tuition waiver, Pisa University.
Excellence path (merit-based additional training activities), Sapienza University.
Student award (merit-based 3 years full tuition waiver), Sapienza University.

# Seminars, Presentations and Schools

▷ SEMINARS	S
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May 2022	StatML CDT, Imperial College London & University of Oxford (London, UK).
May 2022	S3AI, JK Universität Linz (May 2022) (virtual).
May 2022	School of Mathematics, University of Edinburgh (Edinburgh, UK).
Mar 2022	Department of Economics and Finance, Luiss (Rome, Italy).
Mar 2022	School of Mathematics, Cardiff University (Cardiff, UK).
Feb 2022	Department of Mathematics, University of Warwick (Coventry, UK).
Nov 2021	Department of Statistics, University of Warwick (Coventry, UK).
Nov 2021	Department of Statistical Science, University College London (London, UK).
May 2021	Department of Economics, University of Bergamo (Bergamo, Italy, virtual).
Feb 2021	Department of Statistics and Data Science, Cornell University (Ithaca, NY, virtual).

### $\triangleright$ Invited presentations

Jun 2022	2022 ISBA 16th World Meeting of the International Society of Bayesian Analysis (Montreal, Canada).
Apr 2022	BNP Networking Workshop (Nicosia, Cyprus).
Nov 2021	BIRS-CMO Workshop on Foundations of Objective Bayesian Methodology (Oaxaca, Mexico).
Nov 2021	Junior Bayes Beyond the Borders (virtual).
Oct 2021	OxWaSP Annual Workshop (virtual).
Aug 2021	Joint Statistical Meetings (virtual).
Jun 2021	2021 ISBA 15th World Meeting of the International Society of Bayesian Analysis (virtual).
Jun 2021	EcoSta 2021 4th International Conference on Econometrics and Statistics (virtual).
Apr 2021	One World YoungStatS webinar (virtual).
Dec 2020	13th International Conference of the ERCIM WG on Computational and Methodological Statistics (virtual).
Nov 2020	BAYSM:O Bayesian Young Statisticians Meeting: Online (virtual).
Dec 2019	XV CLAPEM 2019 Latin American Congress of Probability and Mathematical Statistics (Mérida, Mexico).
Jun 2019	SIS 2019: Smart Statistics for Smart Applications (Milan, Italy).
Jun 2019	Second Italian Meeting on Probability and Mathematical Statistics (Vietri sul Mare, Italy).

#### ▶ Contributed presentations

Aug 2020	Bernoulli-IMS	${\rm One}$	World	Symposium	2020	$({\rm virtual}).$
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▶ Posters	
Dec 2020	15th Women in Machine Learning Workshop co–located with NeurIPS 2020 (virtual).
Dec 2020	Joint Affinity Groups, NeurIPS 2020 (virtual).
Jun 2019	Objective Bayes Methodology Conference (Warwick, UK).
Jun 2019	12th International Conference on Bayesian Nonparametrics (Oxford, UK).
⊳ Schools	
Jul 2018	Bocconi Summer School on Graphical Models (Como, Italy).
	Instructors: S. Lauritzen (University of Copenhagen) and R. Evans (University of Oxford).
Jul 2017	Bocconi Summer School on Statistical Causal Learning (Como, Italy).
	Instructors: B. Schölkopf (Max Planck Institute for Intelligent Systems, Tübingen), I. Tolstikhin (Google AI,
	Zürich) and D. Lopez-Paz (Facebook AI Research, Paris).

# Teaching

- ⊳ Module Leader, B.Sc. course Bayesian Forecasting and Intervention, University of Warwick (AY 2021/2022).
- ▶ Teaching Assistant, M.Sc. course Numerical and Statistical Methods for Finance, University of Torino (AY 2020/2021).
- ▷ Teaching Assistant, M.Sc. course Data Analysis, Bocconi University (AY 2020/2021, 2019/2020, 2018/2019, 2017/2018).
- ▶ Teaching Assistant, B.Sc. course Mathematics and Statistics, Bocconi University (AY 2018/2019, 2017/2018).

# **Editorial** work

- ▷ Reviewer for Annals of Statistics, Biometrika, Electronic Journal of Statistics, Journal of Business & Economic Statistics, Journal of the American Statistical Association, Statistics & Probability letters.
- ▶ Program Committee Member of the 2021 NeurIPS Workshop Your Model is Wrong: Robustness and Misspecification in Probabilistic Modeling.

## Professional activities

Jan 2022 – Present	Treasurer, BNP section of ISBA.
Jun 2021 – Dec 2021	Chair, ISBA ad-hoc Committee for Junior Awards.
Jun 2021	Organizing Committee Member, Junior Live Presentations ISBA@CIRM Mirror Workshop
Jan 2021 – Present	Board Member, Young Italian Statistical Society (ySIS).
Dec 2020	Volunteer and Poster Mentor, WiML workshop co–located with NeurIPS 2020.
${\rm Jan}\ 2020 - {\rm Sep}\ 2021$	Coordinator, biweekly internal seminar series, BayesLab.
Sep 2019	Volunteer, European Researchers' Night.

## Memberships

Member of the American Statistical Association, Bernoulli Society, Complex Data Modeling Research Network (MiDas), Institute of Mathematical Statistics, International Society for Bayesian Analysis, Italian Statistical Society (SIS).