

# Marta Catalano

marta.catalano@unito.it  
<https://martacatalano.github.io>

## Current Academic Positions

|                    |   |
|--------------------|---|
| Feb 2021 – Present | Postdoctoral researcher at the University of Torino.  |
| Sep 2020 – Present | Research affiliate of the “de Castro” statistics initiative at Collegio Carlo Alberto, Torino.      |
| Jun 2020 – Present | Research affiliate of the Bayes Lab at the Bocconi Institute for Data Science and Analytics (BIDSA) |

## Education

|                     |  |
|---------------------|--|
| 2016 – 2021 (Feb 1) | <b>Ph.D. in Statistics</b> at Bocconi University (Milan, Italy).<br>Advisors: Antonio Lijoi and Igor Prünster.<br>Thesis: <i>On complex dependence structures in Bayesian nonparametrics: a distance-based approach.</i> |
| 2016 – 2017         | <b>Master in Big Data Analytics &amp; Social Mining</b> at Pisa University and CNR (Italy).<br>Advisor: Paolo Ferragina.<br>Thesis: <i>Information retrieval on Arpi dataset.</i> Grade: Excellent.                      |
| 2012 – 2015         | <b>M.Sc. in Mathematics</b> at Sapienza University of Rome (Italy).<br>Advisors: Domenico Fiorenza and Paolo Papi.<br>Thesis: <i>Planar 2-algebras and Khovanov homology.</i> Grade: 110/110 with honors.                |
| 2012 – 2013         | <b>Erasmus program</b> at École Normale Supérieure de Lyon (France).   |
| 2009 – 2012         | <b>B.Sc. in Mathematics</b> at Sapienza University of Rome (Italy).<br>Advisor: Domenico Fiorenza.<br>Thesis: <i>Crystallographic groups.</i> Grade: 110/110 with honors.  |

## Publications

### ▷ PREPRINTS

1. Catalano, M., De Blasi, P., Lijoi, A., Prünster, I. (2020+). Posterior asymptotics for boosted hierarchical Dirichlet process mixtures. *Submitted*.
2. Catalano, M., Lijoi, A., Prünster, I. (2020+). Measuring dependence in the Wasserstein distance for Bayesian nonparametric models. *Under revision*. [Winner of the **ASA-SBSS 2021** Student Paper Competition]

### ▷ REFEREED JOURNALS

1. 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

1. Catalano, M., Lijoi, A., Prünster, I. (2020). Transport distances on random vectors of measures: recent advances in Bayesian nonparametrics. *Special Volume of the XV CLAPEM*. Birkhäuser. To appear.
2. Catalano, M., Lijoi, A., Prünster, I. (2019). Bayesian model comparison based on Wasserstein distances. *Book of Short Papers of the Italian Statistical Society*. Pearson.

## Presentations, Conferences and Schools

### ▷ SEMINARS

Feb 2021 | Department of Statistics and Data Science, Cornell University (Ithaca, NY, virtual).

### ▷ INVITED PRESENTATIONS

|          |   |
|----------|---|
| Aug 2021 | Joint Statistical Meeting (Seattle, WA).  |
| Jun 2021 | EcoSta 2021 4th International Conference on Econometrics and Statistics (virtual).                      |
| Jun 2021 | 2020 ISBA 15th World Meeting of the International Society of Bayesian Analysis (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 One World Symposium 2020 (virtual).

## ▷ CONTRIBUTED POSTERS

Dec 2020 | 15th Workshop for Women in Machine Learning co-located with the 34th Conference on Neural Information Processing Systems (virtual).  
Dec 2020 | Joint Affinity Groups at the 34th Conference on Neural Information Processing Systems (virtual).  
Jun 2019 | Objective Bayes Methodology Conference (Warwick, UK).  
Jun 2019 | 12th International Conference on Bayesian Nonparametrics (Oxford, UK).

## ▷ OTHER CONFERENCES

Jul 2018 | Bayesian Young Statisticians Meeting (Warwick, UK).  
Jun 2018 | 2020 ISBA 14th World Meeting of the International Society of Bayesian Analysis (Edinburgh, UK).  
Jun 2017 | 10th International Workshop on Bayesian Inference in Stochastic Processes (Milan, Italy).

## ▷ 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).

## Awards and Funding

Jan 2021 | Winner of the ASA-SBSS 2021 Student Paper Competition.  
Dec 2020 | Research fellowship (2 months), University of Torino.  
Nov 2020 | Travel grant, WiML workshop co-located with NeurIPS 2020.  
Sep 2020 | *Special financial support* (6 months), Bocconi University.  
Jun 2019 | Travel grant, O'Bayes 2019 conference.  
Jun 2019 | Travel grant, BNP12 conference.  
Sep 2016 | Ph.D. scholarship (4 years), Bocconi University.  
Apr 2016 | Merit-based Master partial tuition waiver, Pisa University.  
2009 – 2012 | *Excellence path* (merit-based additional training activities), Sapienza University.  
2009 – 2012 | *Worthy student* (merit-based 3 years full tuition waiver), Sapienza University.

## Teaching

▷ Teaching Assistant M.Sc. course ECO0152 *Numerical and Statistical Methods for Finance* at University of Torino (AY 2020/2021).  
▷ Teaching Assistant M.Sc. course 20179 *Data Analysis* at Bocconi University (AY 2020/2021, 2019/2020, 2018/2019, 2017/2018).  
▷ Teaching Assistant B.Sc. course 30401 *Mathematics and Statistics* at Bocconi University (AY 2018/2019, 2017/2018).

## Editorial work

Reviewer for *the Annals of Statistics*, *Biometrika*, *Journal of the American Statistical Association* and *Statistics & Probability letters*.

## Professional activities

Jan 2021 – Present | Board member of the Young Italian Statistical Society (ySIS).  
Dec 2020 | Volunteer and Poster Mentor for the WiML workshop co-located with NeurIPS 2020.  
Jan 2020 – Present | Coordinator of the biweekly internal seminar series at the Bayes Lab.  
Sep 2019 | Volunteer for the 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).