Laura Bondi | Curriculum Vitae

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🏛 Academic Positions

MRC Biostatistics Unit, Cambridge University — **Cambridge, UK**

Research Associate — *Sep. 2021 – Present*

I work within the Precision Medicine and Inference for Complex Outcomes (PREM) group with Dr. Brian Tom and Prof. Sylvia Richardson. I am part of the "STEpUP OA" collaboration, led by the Kennedy Institute at Oxford University, that aims at identifying molecular pathways of osteoarthritis (OA). From a methodological side, I am currently working on issues related to variable selection and outcome prioritisation in outcome-guided Bayesian clustering.

🎓 Education

Bocconi University — **Milan, Italy**

Ph.D. in Statistics — *Sep. 2017 – Feb. 2022*

Final mark: summa cum laude. Advisor: Prof. Marco Bonetti. Thesis's title: *"Statistical models for the natural history of breast cancer"*.

Università degli Studi di Padova — **Padua, Italy**

M.Sc. in Statistical Sciences — *Jan. 2015 – Mar. 2017*

Main fields of interest: Biostatistics, Data Mining, Causal Inference, Mathematical Statistics. Thesis's supervisors: Prof. Irene Gijbels (KU Leuven) and Prof. Alessandra Brazzale. Thesis's title: *"Kernel estimation of quantile regression curves using copula modelling"*. Final mark: 110/110 summa cum laude.

Università degli Studi di Padova — **Padua, Italy**

B.Sc. in Mathematics — *Oct. 2011 – Dec. 2014*

Main fields of interest: Probability and Applied Mathematics. Final mark: 108/110.

📘 Academic Experience

Articles in refereed journals

Bondi L, Bonetti M, Grigorova D, Russo A (2023). Approximate Bayesian Computation (ABC) for the natural history of breast cancer with application to data from a cohort of disease-free women in Milan. Statistics in Medicine. In press.

Refereed conference proceedings

Bondi L, Bonetti M, Hofvind S (2023). A model for the natural history of breast cancer: application to Norwegian screening data. Book of Short Papers of the Italian Statistical Society.

Bondi L, Bonetti M, Piccarreta R (2022). An exploration of Approximate Bayesian Computation (ABC) and dissimilarities. Book of Short Papers of the Italian Statistical Society.

Working papers

Bondi L, Bonetti M, Pagano M (2023+). Unbiased estimation of the sparsity index in Poisson size-biased sampling. Under review.

Bondi L, Tom B, Richardson S (2023+). A generalized Bayes framework for outcome-guided clustering. Work in progress.

The STEp-UP OA Consortium (2023+). Supportive evidence for novel biodiscovery in osteoarthritis through the STEpUP OA Consortium. Work in progress.

Teaching activities

Bocconi University   **Milan, Italy**
Teaching Assistant   *A.y. 2018/2019-2020/2021*
I helped in the teaching activity of the courses "*Advanced Mathematics and Statistics*" and "*Statistics*" for the bachelor degrees in *Economics, Management and Computer Science*, *Economics and Management for Arts, Culture and Communication* and *Economics and Management* proposing and solving exercises, supervising and scoring exams.

Affiliations

Affiliations: International Biometric Society (IBS) - Italian Region, International Society for Clinical Biostatistics (ISCB), Italian Statistical Society (SIS).

Talks, conferences and workshops

STEpUP OA   **Oxford, UK**
Invited Talk   *January 2023*
STEpUP OA Annual Consortium Meeting 2023.

ISBA 2022   **Montreal, Canada**
Contributed Talk   *June 2022*
International Society for Bayesian Analysis (ISBA) World Meeting.

SIS 2022   **Caserta, Italy**
Contributed Talk   *June 2022*
51st Scientific Meeting of the Italian Statistical Society.

CMStatistics 2021   **London, UK**
Contributed Talk   *December 2021*
14th International Conference of the ERCIM WG on Computational and Methodological Statistics.

ISCB 2021   **Virtual**
Contributed Talk   *July 2021*
42nd Conference of the International Society for Clinical Biostatistics.

IBS-EMR 2021   **Virtual**
Invited Talk   *April 2021*
Conference of the Eastern Mediterranean Region, International Biometric Society.

IBC 2020   **Virtual**
Poster Session   *August 2020*
30th Conference of the International Biometric Society.

Data Research Camp   **Venice, Italy**
Workshop   *July 2019*
It was a 3-day meeting where small research groups of young scholars, advised by senior researchers, were asked to develop innovative methods and models to analyze a common dataset. I worked in a group supervised by Professor David Rossell (Pompeu Fabra University).

🏆 Awards

Premio Maria Chiara Magri   *April 2023*
I was awarded a prize in memory of Maria Chiara Magri (for more details, see `https://epiprev.it/page/premio-maria-chiara-magri`, in Italian only).

ISBA Travel Award   *June 2022*
Junior Travel Support to attend the 2022 ISBA World Meeting in Montreal.

🖥️ Programming Skills

Advanced: R, LaTeX

Basic: Stata, SAS, MATLAB, C, Python

🔗 Outreach and Scolarships

PhD student representative   **Milan, Italy**
Bocconi University   *Nov. 2018 - Nov. 2021*
I have been elected PhD student representative in the Department of Decision Sciences for three academic years.

Modern Methods in Biostatistics and Epidemiology   **Cison di Valmarino (TV), Italy**
Summer School   *June 2019*
I attended the course "Statistical methods for population-based cancer survival analysis" by Professors Paul Dickman (Karolinska Institutet) and Paul Lambert (Leicester University and Karolinska Institutet).

Bocconi University PhD BEAT program   **Milan, Italy**
Bocconi Excellence in Advanced Teaching program   *Oct.-Dec. 2018*
I attended the PhD BEAT program whose aim is to support PhD students to explore new pedagogical methodologies and teaching practices, and to help them in personal development to provide enhanced learning experiences in the classrooms.

Bocconi Summer School in Advanced Statistics and Probability   **Como, Italy**
Summer School   *July 2018*
I attended the Bocconi Summer School in Advanced Statistics and Probability: Graphical Models.

Bocconi University Phd Scholarship   **Milan, Italy**
Scholarship   *Sep. 2017 - Aug. 2021*
Visiting period at KU Leuven   **Leuven, Belgium**
Visiting Student   *May-July 2017*
I have been invited by Professor Irene Gijbels to spend a period in Leuven as a visiting research student.

Erasmus+ Scholarship   **Leuven, Belgium**
Scholarship   *Sep. 2016 - Feb. 2017*
I have been awarded with a merit-based scholarship by the Erasmus+ program to spend a semester at Katholieke Universiteit Leuven (KU Leuven) to write my master's thesis.

Università degli studi di Padova Scholarship for Academic Achievement   **Padua, Italy**
Scholarship   *Oct. 2012*
I have been awarded with a merit-based scholarship designed to encourage students of scientific subjects.

Italian Mathematical Olympiad   **Cesenatico, Italy**
Award   *May 2011*
I have been awarded with a bronze medal at the Italian Mathematical Olympiads, having ranked in the top 150 among over 300,000 Italian high school students in solving math problems. It was a three-step competition, with the national final taking place in Cesenatico, Italy.

🌐 Language Skills

Italian: Mothertongue

English: Fluent, C1 level (IELTS 7.5, November 2016).