# FEDERICO CAMERLENGHI

#### PERSONAL INFORMATION

- Birth: July 20, 1988, Mantova, Italy.
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### **CURRENT POSITION**

• **July 2025 – today:** Full Professor of Statistics (STAT-01/A), Department of Economics, Management and Statistics, University of Milano-Bicocca, Milano, Italy.

#### OTHER AFFILIATIONS

• **December 2016 – today:** Affiliate, BIDSA (Bocconi Institute for Data Science and Analytics), Bocconi University, Milano, Italy.

#### PAST POSITIONS

- November 2022 June 2025: Associate Professor of Statistics (STAT-01/A), Department of Economics, Management and Statistics, University of Milano-Bicocca, Milano, Italy.
- November 2019 October 2022: Senior assistant Professor (RTDb), Department of Economics, Management and Statistics, University of Milano-Bicocca, Milano, Italy.
- January 2018 October 2019: Junior assistant Professor (RTDa), Department of Economics, Management and Statistics, University of Milano-Bicocca, Milano, Italy.
- January 2017 December 2017: Postdoctoral fellow, Department of Statistical Sciences, University of Bologna, Bologna, Italy.
- January 2016 December 2016: Postdoctoral fellow, Department of Decision Sciences, Bocconi University, Milano, Italy.
- May 2019 October 2022: Affiliate, Collegio Carlo Alberto (Piazza V. Arbarello 8, Torino) for the participation to the ERC consolidator grant NBEB-SSP (PI Prof. Stefano Favaro).
- July 2014 December 2019: Affiliate, de Castro Statistics Initiative, Collegio Carlo Alberto, Moncalieri, Torino, Italy.

## **EDUCATION**

- October 2012 November 2015: Ph.D. in Mathematics and Statistics, University of Pavia, Pavia, Italy. Supervisors: Prof. Antonio Lijoi and Prof. Igor Prünster. Thesis defense: December 1, 2015.
- November 2012 December 2016: Student of the Biomedical University Residence, Pavia, Italy.
- October 2010 September 2012: Master of Science in Mathematics, University of Milano, Milano, Italy. Degree: 110/110 cum laude.
- October 2007 September 2010: Bachelor of Science in Mathematics, University of Modena and Reggio Emilia, Modena, Italy. Degree: 110/110 cum laude.

#### HONORS AND AWARDS

## Awards:

- 2023: National Scientific Qualification (ASN) to the role of Full Professor in the area 13/D1 STATISTICS from 05/06/2023 to 05/06/2034.
- 2022: Early-Career Scholar Award for Contributions to Statistics "Premio a giovani studiosi e studiose per contributi alle discipline statistiche", assigned yearly by the Italian Statistical Society (SIS) to the best statistician in Italy under the age of 40.
- 2019: Winner of the award "Premio Giovani Talenti 2019", University of Milano Bicocca and Accademia Nazionale dei Lincei, Italy.
- **December 2018**: Joint recipient of a European Research Council (ERC) Consolidator Grant. Research team: Federico Camerlenghi, Emanuele Dolera, Stefano Favaro (PI).
- 2016: Savage award in Theory and Methods, for outstanding doctoral dissertations in Bayesian Econometrics and Statistics sponsored by ASA (American Statistical Association), ISBA (International Society for Bayesian Analysis) and NBER-NSF.
- 2016: award for the best Ph.D. thesis in Statistics, assigned by the Italian Statistical Society.
- 2012: Ph.D. Scholarship, University of Pavia, Italy.
- Received the merit-based tuition refund scholarship (granted to the top students of the Faculty of Science at the University of Modena and Reggio Emilia) for the academic years 2007-2008, 2008-2009, 2009-2010.
- Received the merit-based Student Prize "Premio di Studio" at the University of Modena and Reggio Emilia in the academic years 2007-2008, 2008-2009, 2009-2010.
- Received the merit-based Student Prize "Premio di Laurea" at the University of Modena and Reggio Emilia for the academic year 2009-2010: first place among all the students of the Faculty of Science.

#### Travel awards:

- **2016**: travel award grant from the Biomedical University Residence (Pavia) to attend the Statalk Computational tools for Statistical Modeling, Roma, September 2016.
- 2016: ISBA travel award to attend ISBA world meeting 2016, Santa Margherita di Pula (CA), Italy.
- 2015: travel award grant from the Biomedical University Residence (Pavia) to attend the 10<sup>th</sup> conference on Bayesian nonparametrics (BNP10), Raleigh, USA.
- 2015: US National Science Foundation travel award to attend O-Bayes15, Valencia, Spain.
- **2014**: travel award grant from the Biomedical University Residence (Pavia) to attend the ISBA 2014 world meeting, Cancun, Mexico.
- **2013**: travel award to attend the ERC School on Geometric Measure Theory and Real Analysis, organized by the "Centro De Giorgi" (Pisa, Italy).

## VISITING PERIODS

- **February 25 March 26, 2024**: Department of Biostatistics, University of California Los Angeles, California, USA (invited by Prof. Michele Guindani).
- March 29 May 31, 2023: Department of Biostatistics, University of California Los Angeles, California, USA (invited by Prof. Michele Guindani).
- April 4 May 4, 2016: Department of Statistics, University of Michigan, USA (invited by Prof. Xuanlong Nguyen).

## **TALKS & POSTER PRESENTATIONS**

- June 23 27, 2025: keynote lecture at the 14th International Conference on Bayesian nonparametrics (BNP14), Los
  Angeles, US. Title of the keynote lecture: Discrete random structures for feature sampling models: theory and
  applications.
- **June 13 14, 2025**: plenary lecture at StaTalk 2025, University of Milano-Bicocca, Italy. Title of the plenary lecture: *Unveiling the unseen: the power of being Bayesian.*

#### Invited talks:

- January 12 16, 2026: invited speaker at the workshop "Nonparametric Bayesian Inference Computational Issues", ICERM, Brown University in Providence, USA. (to be held)
- **September 8 10, 2025**: the mathematics of subjective probability (MSP2025), University of Milano-Bicocca, Italy. Title of the talk: *Predictive characterizations for feature allocation models*. (to be held)
- June 8 12, 2025: Objective Bayes Methodology Conference (O'Bayes 2025), Stavros Niarchos Foundation Cultural Center (SNFCC), Athens, Greece. Title of the talk: Bayesian calculus and predictive characterizations of extended feature allocation models.
- December 14 16, 2024: 18th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), London, UK. Title of the talk: Predictive inference for ecological problems.
- June 10 14, 2024: 4th Italian meeting on Probability and Mathematical Statistics, Rome, Italy. Title of the talk:
   Predictive inference via Bayesian nonparametrics.
- August 22 25, 2023: 25th International Conference on Computational Statistics (COMPSTAT 2023), London, UK. Title of the talk: Dependent nonparametric priors based on finite point processes.
- August 1 3, 2023: 6th International Conference on Econometrics and Statistics (EcoSta 2023), Tokyo, Japan. Title
  of the talk: Dependent nonparametric priors based on finite point processes.
- **June 19 23, 2023**: Conference "Approximation Methods in Bayesian Analysis", CIRM, Marseille, France. Title of the talk: *Normalized random measures with interacting atoms for Bayesian nonparametric mixtures*.
- December 13 16, 2022: IMS International Conference on Statistics and Data Science (ICSDS 2022), Florence, Italy.
   Title of the talk: Normalized random measures with interacting atoms for Bayesian mixtures.
- **September 6 10, 2022:** Objective Bayes Methodology Conference (O'Bayes 2022), University of California Santa Cruz, USA. Title of the talk (with discussion): *Nested nonparametric processes*.
- **June 22 24, 2022:** 51st meeting of the Italian Statistical Society (SIS2022), Caserta, Italy. Title of the talk: *Dependent nonparametric priors*, talk in connection with the Early-Career Scholar Award for Contributions to Statistics.
- **December 10, 2021**: Disclosure control meeting, organized online in Japan. Title of the talk: *Nonparametric disclosure risk assessment.*
- **July 29 August 2, 2019:** 21st European Young Statisticians Meeting, Belgrade, Serbia. Title of the talk: *Hierarchical Nonparametric Processes*.
- June 18 21, 2019: SIS 2019 Smart Statistics for Smart Applications, Milan, Italy. Title of the talk: Hierarchies of nonparametric priors.
- **December 14 16, 2018:** 11<sup>th</sup> international conference of the ERCIM, Pisa, Italy. Title of the talk: Bayesian prediction with heterogeneous populations: an application to feature sampling.
- **September 9 13, 2018:** Japanese Joint Statistical Meeting 2018, Tokyo, Japan. Title of the talk: *Full Bayesian inference for dependent nonparametric priors*.
- **July 29 August 3, 2017:** Joint Statistical Meeting (JSM 2017), Baltimore, USA. Title of the talk: *Hierarchical and nested random probability measures with statistical applications.*
- **June 19 22, 2017:** First Italian meeting on probability and mathematical statistics, Torino, Italy. Title of the talk: Dependent hierarchical processes for multi-armed bandits.
- **June 13 17, 2016**: ISBA 2016 world meeting, Santa Margherita di Pula (CA), Italy. Title of the talk: *Nested processes based on completely random measures*.
- June 8 10, 2016: 48th Scientific Meeting of the Italian Statistical Society, Salerno, Italy. Title of the talk: Hierarchical
  and nested random probability measures with statistical applications. (Specialized session for the Best Ph.D. Thesis
  prize)
- **December 12 14, 2015**: 8<sup>th</sup> international conference of the ERCIM WG on computational and methodological Statistics, University of London, UK. Title of the talk: *Nonparametric hierarchical models based on completely random*

#### measures.

• September 12, 2014: Workshop on Random Structures and Models in Medicine, Biotechnology, Material Science and Environment, Department of Mathematics, Milano. Title of the talk: Estimation of the mean density of random closed sets: theoretical results and numerical experiments.

#### Contributed talks:

- **June 26 July 1, 2022:** 2022 ISBA world meeting, Montreal, Canada. Title of the talk: *Scaled process priors for the BNP estimation of the unseen genetic variation.*
- **June 21 25, 2021**: 50<sup>th</sup> Scientific Meeting of the Italian Statistical Society, held virtually, Italy. Title of the talk: Bayesian nonparametric prediction: from species to features.
- **December 14 16, 2019**: 12<sup>th</sup> international conference of the ERCIM WG on computational and methodological Statistics, University of London, UK. Title of the talk: *Missing mass estimation in feature sampling.*
- **June 24 28, 2019:** 12<sup>th</sup> conference on Bayesian nonparametrics (BNP12), Oxford, UK. Title of the talk: *Bayesian Prediction in Feature Models.*
- **June 26 30, 2017:** 11<sup>th</sup> conference on Bayesian nonparametrics (BNP11), Paris, France. Title of the talk: *Dependent nonparametric priors for partially exchangeable data.*
- **January 23 25, 2017**: YES VIII workshop on uncertainty quantification, EURANDOM, Eindhoven, The Netherlands. Title of the talk: *Hierarchical hazard rates for partially exchangeable survival times*.
- **March 1 4, 2016**: 12<sup>th</sup> German Probability and Statistics Days, Rhur-Universität Bochum, Germany. Title of the talk: On the "Minkowksi content"-based estimator of the mean density of lower dimensional random closed sets.

#### Invited seminars:

- **February 9, 2024**: Invited seminar at the Department of Mathematics, Imperial College London, UK. Title of the talk: *Normalized random measures in Bayesian nonparametrics.*
- May 10, 2023: Invited seminar at the Department of Biostatistics, University of California Los Angeles, California, USA. Title of the talk: Scaled process priors for the BNP estimation of the unseen genetic variation.
- April 6, 2023: Invited seminar at the Department of Statistics, University of California Irvine, California, USA. Title of the talk: Scaled process priors for the BNP estimation of the unseen genetic variation.
- **December 5, 2022:** Invited webinar organized by the UMI PRISMA group. Title of the talk: *Normalized random measures with atoms' interaction.*
- November 18, 2022: Invited seminar at the Department of Statistical Sciences, University of Padova, Padova, Italy.
   Title of the talk: Bayesian Nonparametric priors for genomic variant discoveries.
- April 20, 2022: invited webinar organized by the BNP (Bayesian nonparametrics) section of ISBA (International Society for Bayesian Analysis). The title of the talk (presented jointly with Lorenzo Masoero): Bayesian nonparametric priors for genomic variant discoveries.
- April 21, 2021: Invited discussion of the online session Developments in Bayesian nonparamterics, organized by YoungStatS.
- **September 8, 2016:** Department of Economics, Sapienza University, Roma, Italy. Title of the talk: *Distribution theory for hierarchical processes with statistical applications.*

#### Poster presentations:

- June 24 29, 2018: ISBA 2018 world meeting, Edinburgh, UK.
- June 20 22, 2018: 49th meeting of the Italian Statistical Society, Palermo, Italy.
- December 9, 2016: Workshop on practical Bayesian nonparametrics at NIPS 2016, Barcelona, Spain.
- June 22 26, 2015: 10th conference on Bayesian nonparametrics (BNP10), Raleigh, USA.
- June 1 5, 2015: 11th international workshop on Objective Bayes Methodology (O-Bayes 15), Valencia, Spain.

## Residential research programs:

• **July 9 – August 3, 2024:** Invited Participant, *Interpretable Inference via Principled BNP Approaches in Biomedical Research and Beyond*, Institute of Mathematical Sciences (IMS), National University of Singapore (Singapore).

#### ORGANIZATION OF CONFERENCES & SESSIONS

#### Sessions:

- December 14 16, 2024: co-organizer of the session <u>Modern challenges in Bayesian nonparametric inference</u> at the 18<sup>th</sup> International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), London, UK.
- July 1 7, 2024: co-organizer of the session <u>Are likelihoods and priors necessary to address Bayesian inference?</u> at the 2024 ISBA world meeting, Venice, Italy.
- **June 10 14, 2024**: organizer of the invited session <u>Dependence structures in Bayesian nonparametrics</u> at the 4th Italian meeting on Probability and Mathematical Statistics, Rome, Italy.
- December 16 18, 2023: co-organizer of the invited session <u>Modern challenges in Bayesian inference</u> at the 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023), Berlin, Germany.
- June 21 23, 2023: organizer of the invited session <u>Bayesian contributions to statistical learning</u> at the Intermediate Meeting of the Italian Statistical Society (SIS 2023) "Statistical Learning, Sustanaibility and Impact Evolution", Ancona, Italy
- December 17 19, 2022: organizer of the invited session <u>Computational and methodological advances in Bayesian</u> nonparametrics at the 15<sup>th</sup> international conference of the ERCIM WG, London, UK.
- **December 18 20, 2021:** organizer of the invited session <u>Bayesian nonparametrics: Modeling and computation</u> at the 14th international conference of the ERCIM, London, UK.
- **December 14 16, 2019:** organizer of the invited session <u>Bayesian Inference via Discrete Nonparametric Priors</u> at the 12<sup>th</sup> international conference of the ERCIM, London, UK.
- December 14 16, 2018: organizer of the invited session <u>Computational and Methodological Advances in Bayesian Nonparametrics</u> at the 11<sup>th</sup> international conference of the ERCIM, Pisa, Italy. The session was sponsored by jISBA.
- June 20 22, 2018: co-organizer of the specialized session <u>Young contributions to Statistical Learning</u> at the 49<sup>th</sup> meeting of the Italian Statistical Society, Palermo, Italy. The session was sponsored by ySIS, young group of the Italian Statistical Society.

#### Conferences:

- September 4 5, 2025: member of the Scientific program committee of the SISBayes workshop 2025, University of Padova, Italy.
- December 14 16, 2024: member of the Scientific Program Committee at the 18<sup>th</sup> International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), London, UK.
- **September 11 15, 2023,** member of the international organizing committee scientific program committee of the European Young Statistician Meeting (EYSM 2023), Ljubljana, Slovenia (held in virtual mode).
- September 1 3, 2021: member of the scientific committee of <u>Bayesian Young Statisticians Meeting</u> BAYSM 2021, online conference.
- **June 25 27, 2017**: member of the local organizing committee of Start up Research, Certosa di Pontigniano, Siena, Italy. Start up Research was a satellite event of the SIS conference on Statistics and Data Science.

#### **SCHOOLS**

- **June 16 20, 2014**: Applied Bayesian Statistics School (ABS14). Applied Bayesian Nonparametrics, Como, Italy. Lecturers: Micheal Jordan, Francois Caron.
- **September 30 October 4, 2013:** ERC School on Geometric Measure Theory and Real Analysis, organized by the "Centro De Giogi" (Pisa, Italy). Lecturers: Vladimir Bogachev, Roberto Monti, Emanuele Spadaro, Davide Vittone.
- July 1 19, 2013: Summer School in Cortona, Italy. Introduction to Distributional Approximation and Stein's Method. Lecturers: Larry Goldstein, Yosef Rinott. Final grade: A.

#### TEACHING ACTIVITY

### Ph.D. courses:

- Instructor, jointly with Prof. Bernardo Nipoti, of the reading group Bayesian Nonparametric Mixture Models, Ph.D. in Economics and Statistics, University of Milano-Bicocca, Italy. (aa.yy. 2020/2021, 2021/2022; 15 hours per year for the whole reading group).
- Instructor, jointly with Prof. Bernardo Nipoti, of the reading group *The Dependent Dirichlet Process and Related Models*, Ph.D. in Economics, Statistics and Data Science, University of Milano-Bicocca, Italy. (a. y. 2022/2023; 15 hours for the whole reading group).
- Instructor for the courses *Probability 1* (15 hours) and *Probability 2* (15 hours), Ph.D. in Economics, Statistics and Data Science, University of Milano-Bicocca, Milan, Italy. (aa.yy. 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2023/2024; 30 hours per year).
- Instructor for the course *Probability* (32 hours), PhD in Economics, Statistics and Data Science, University of Milano-Bicocca, Milan, Italy. (a.y. 2024/2025).

#### Ordinary courses:

- Co-instructor for the course Advanced Mathematics and Statistics, BEMACS (Bachelor of Science in Economics, Management and Computer Science), Bocconi University, Milano, Italy. (aa.yy. 2018/2019, 2019/2020, 2020/2021, 2021/2022; 21 hours per year)
- Teaching assistant for the course Statistica 2 (Statistics 2), bachelor's degree in "Scienze Statistiche ed Economiche", University of Milano-Bicocca, Milano, Italy. The course has been held in the academic years: 2018/2019 (14 hours), 2019/2020 (20 hours), 2020/2021 (20 hours), 2021/2022 (20 hours), 2024/2025 (12 hours).
- Instructor for the course Probabilità Applicata (Applied Probability), master's degree in "Scienze Statistiche ed Economiche", University of Milano-Bicocca, Milano, Italy. (aa.yy. 2022/2023, 20234/2024, 2024/2025; 42 hours per year).
- Instructor for the course *Metodi per le Indagini Campionarie M (Sampling Methods)*, master's degree in "Scienze Statistiche ed Economiche", University of Milano-Bicocca, Milano, Italy. (aa.yy. 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2023/2024, 2024/2025; 42 hours per year).
- Instructor for the course Principi di Inferenza (Principles of Inference), master's degree in "Economia del Turismo",
   University of Milano-Bicocca, Milano, Italy. (aa.yy. 2022/2023, 2023/2024, 2024/2025; 21 hours per year).
- Instructor of the reading group *Processi di punto e relative applicazioni (Point processes and related applications)* for the students attending the program "Young Talents" at the second year of the master's degree "Scienze Statistiche ed Economiche", University of Milano-Bicocca, Milano, Italy. The course is delivered during the period October-December 2024 (15 hours).

## Teaching assistantship and tutorship:

- Tutor for the course of *Inference* (Bayesian Statistics) at the department of Statistical Sciences, University of Bologna, Bologna, Italy. (a.y. 2016/2017)
- Teaching seminars for the course *Analisi Matematica 1 (Mathematical Analysis 1)* at the department of "Ingegneria Edile-Architettura", University of Pavia, Pavia, Italy. The undersigned has delivered 10 class seminars for the a.y. 2014/2015 and 16 class seminars for the a.y. 2015/2016.
- Teaching seminars for the course Analisi Matematica 2 (calculus for functions in several variables) at the department
  of "Ingegneria Industriale e dell'Informazione", University of Pavia, Pavia, Italy. The undersigned has delivered 18
  class seminars for the a.y. 2013/2014.

## LOCAL ADMINISTRATIVE DUTIES

- **2020 today**: board member of the program committee of the Ph.D. program in Economics, Statistics and Data Science (ECOSTATDATA), University of Milano Bicocca, Milano, Italy.
- 2024 today: coordinator (jointly with Tommaso Rigon) of the program "Young Talents" for the second-year students

- of the master's degree in "Scienze Statistiche ed Economiche" (CLAMSES), University of Milano-Bicocca, Milano, Italy.
- **2024 today**: member of the committee RCP ("Ricostruzione carriere pregresse") for the admission to the master's degree in "Scienze Statistiche ed Economiche" (CLAMSES), University of Milano-Bicocca, Milano, Italy.
- **2024 today**: committee member for the approval of study plans, master's degree in "Scienze Statistiche ed Economiche" (CLAMSES), University of Milano-Bicocca, Milano, Italy.
- **2024 today**: primary contact for the enrolment in individual courses at the master's degree in "Scienze Statistiche ed Economiche" (CLAMSES), University of Milano-Bicocca, Milano, Italy.

## **EDITORIAL ACTIVITIES**

- **2024 today**: Associate Editor of Statistical Methods & Applications.
- 2023 today: Associate Editor of Electronic Journal of Statistics.
- Co-editor of the volume: New Frontiers in Bayesian Statistics BaYSM2021 Online, September 1-3, Springer Proceedings in Mathematics & Statistics.
- Referee for the following scientific journals: Annals of Statistics; Bayesian Analysis; Bernoulli; Biometrika; Computational Statistics & Data Analysis; Electronic Journal of Statistics; IEEE Transactions on Information Theory; International Journal of Approximate Reasoning; Journal of Computational and Graphical Statistics; Journal of Machine Learning Research; Journal of the American Statistical Association; Journal of Statistical Planning and Inference; Journal of the Royal Statistical Society series B; Proceedings of the Royal Society A; Scandinavian Journal of Statistics; Statistics and Computing; Statistics and Probability Letters; Statistical Methods and Applications; Statistica Sinica.

## PROFESSIONAL SERVICES

- November 2024– today: elected member of the SISBayes board, the Bayesian group of the Italian Statistical Society.
- 2019: Chair of the junior ISBA board (junior section of the International Society for Bayesian Analysis).
- 2018: Chair-elect member of the junior ISBA board (junior section of the International Society for Bayesian Analysis).
- 2017: Chair of the board of the young group of the Italian Statistical Society (ySIS).
- 2016: Member of the board of the young group of the Italian Statistical Society (ySIS).

## SOCIETY MEMBERSHIP

Italian Statistical Society; International Society for Bayesian Analysis; National group for Mathematical Analysis, Probability and their Applications (GNAMPA) of the national institute of Mathematics (INdAM); Institute of Mathematical Statistics.

## RESEARCH PROJECT GRANTS

- Local unit principal investigator, Department of Economics, Management and Statistics, University of Milano-Bicocca. PRIN 2022 PNRR project *Measuring Biodiversity via Bayesian Nonparametrics: Estimation, Clustering and Uncertainty Quantification* funded by the Italian Ministry of University and Research. National coordinator Prof. Igor Prünster. Amount founded for the Bicocca unit: € 105.387,00.
- Member, PRIN 2022 project Discrete random structures for Bayesian learning and prediction, funded by MUR, Milano-Bicocca local unit. Local coordinator Prof. Bernardo Nipoti, National coordinator Prof. Antonio Lijoi. Amount founded for the Bicocca unit: € 41.152,00.
- Member of the project Discrete random structures for Bayesian learning and prediction, funded by the University of Milano-Bicocca, from 02/12/2021 to 01/12/2023 (Fondo di ateneo, quota competitiva). Coordinator: Prof. Bernardo

Nipoti.

- Member, European Research Council (ERC) project (2019-2024): Nonparametric Bayes and empirical Bayes for species sampling problems: classical questions, new directions and related issues. Member of the project until the end of October 2022. Scientific coordinator: Prof. Stefano Favaro.
- Member of the GNAMPA (Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le loro Applicazioni) research project 2021 Stime asintotiche: principi di invarianza e grandi deviazioni, scientific coordinator Prof. Barbara Pacchiarotti (12 months).
- Member of the GNAMPA research project 2017 Bayesian methods for the analysis of exchangeable and partially
  exchangeable sequences of observations, with applications to species sampling problems, scientific coordinator Prof.
  Emanuele Dolera (12 months).
- Member of the GNAMPA research project 2016 Partially exchangeable sequences of observations in Bayesian Statistics, scientific coordinator Prof. Federico Bassetti (12 months).
- Member of the GNAMPA research project 2014 Some problems of statistical inference for partially exchangeable sequences of observations, scientific coordinator Prof. Federico Bassetti (12 months).
- Member of the GNAMPA research project 2013 Markovian quantum evolution, scientific coordinator Prof. Raffaella Carbone (12 months).

#### STUDENT SUPERVISION

## Postdoctoral supervisions:

• Dr. Claudio del Sole, postdoctoral fellow in Statistics at the Department of Economics, Management and Statistics, University of Milano-Bicocca (from November 1, 2024).

### Ph.D. supervisions:

- Riccardo Cogo, Ph.D. student (co-advised with Tommaso Rigon). Expected defence: January 2025.
- Lorenzo Ghilotti, Ph.D. student. Expected defence: January 2026.

## Visiting students:

• Ziyi Song, visiting Ph.D. student (University of California Irvine, US) from January 1 to March 31, 2025.

#### Ph.D. tutorships:

Luca Presicce, Ph.D. student. Expected defence: January 2026.

## Master and Bachelor supervisions:

- Supervisor of 5 master students: Virginia Marino, Sofia Monai, Francesco Mazzetto, Giulio Beltramin, Anna Petranzan; co-supervisor of 1 master student (Laura Accorto);
- Supervisor of 4 bachelor students (Alessandro Caruso, Lorenzo Lobosco, Agostino Tassan Mazzocco, Anna Petranzan).

#### **PUBLICATIONS**

## Articles in refereed journals:

- M. Beraha, R. Argiento, F. Camerlenghi, A. Guglielmi (2025). Bayesian mixture models with repulsive and attractive atoms. *Journal of the Royal Statistical Society Series B*, accepted for publication.
- A. Colombi, R. Argiento, F. Camerlenghi, L. Paci (2025). Hierarchical mixture of finite mixtures. *Bayesian Analysis*, accepted for publication.
- F. Camerlenghi, E. Dolera, S. Favaro, E. Mainini (2024). Wasserstein posterior contraction rates in non-dominated Bayesian Nonparametric Models. Annales de l'Institut Henri Poincaré - Probabilités et Statistiques, accepted for publication.
- C. Balocchi, F. Camerlenghi, S. Favaro (2024). A Bayesian nonparametric approach to species sampling problems

- with ordering. Bayesian Analysis, to appear.
- F. Camerlenghi, R. Corradin, A. Ongaro (2024). Contaminated Gibbs-type priors. Bayesian Analysis, 19, 347-376.
- F. Camerlenghi, S. Favaro, L. Masoero, T. Broderick (2024). Scaled process priors for Bayesian nonparametric estimation of the unseen genetic variation. *Journal of the American Statistical Association*, **119**, 320-331.
- F. Denti, F. Camerlenghi, M. Guindani, A. Mira (2023). A common atoms model for the Bayesian nonparametric analysis of nested data. *Journal of the American Statistical Association*, **118**, 405-416.
- L. Masoero, F. Camerlenghi, S. Favaro, T. Broderick (2022). More for less: Predicting and maximizing genetic variant discovery via Bayesian nonparametrics. *Biometrika*, **109**, 17-32.
- F. Camerlenghi, S. Favaro (2021). On Johnson's "Sufficientness" Postulates for Feature-Sampling Models. *Mathematics*, special issue "Bayesian Predictive Inference and Related Asymptotics—Festschrift for Eugenio Regazzini's 75th Birthday", 9, 2891.
- F. Ayed, M. Battiston, F. Camerlenghi, S. Favaro (2021). Consistent estimation of small masses in feature sampling. *Journal of Machine Learning Research*, **22**, 1-28.
- F. Camerlenghi, A. Lijoi, I. Prünster (2021). Survival analysis via hierarchically dependent mixture hazards. The Annals
  of Statistics, 49, 863-884.
- F. Camerlenghi, S. Favaro, Z. Naulet, F. Panero (2021). Optimal disclosure risk assessment. *The Annals of Statistics*, **49**, 723-744.
- F. Ayed, M. Battiston, F. Camerlenghi, S. Favaro (2021). On consistent and rate optimal estimation of the missing mass. *Annales de l'Institut Henri Poincaré Probabilités et Statistiques*, **57**, 1476-1494.
- F. Camerlenghi, C. Macci, E. Villa (2020). Asymptotic behavior of mean density estimators based on a single observation: the Boolean model case. Annals of the Institute of Statistical Mathematics, 73, 1011-1035.
- F. Camerlenghi, B. Dumitrascu, F. Ferrari, B. E. Engelhardt, S. Favaro (2020). Nonparametric Bayesian multi-armed bandits for single cell experiment design. *The Annals of Applied Statistics*, **14**, 2003-2019.
- F. Ayed, M. Battiston, F. Camerlenghi (2020). An Information theoretic approach to Post Randomization Methods under Differential Privacy. *Statistics & Computing*, **30**, 1347-1361.
- F. Ayed, M. Battiston, F. Camerlenghi, S. Favaro (2019). A Good-Turing estimator for feature allocation models. *Electronic Journal of Statistics*, **13**, 3775-3804.
- F. Camerlenghi, D.B. Dunson, A. Lijoi, I. Prünster, A. Rodriguez (2019). Latent nested nonparametric priors. *Bayesian Analysis*, **14**, 1303-1356. (with discussion)
- F. Camerlenghi, A. Lijoi, P. Orbanz, I. Prünster (2019). Distribution theory for hierarchical processes. *The Annals of Statistics*, **47**, 67-92.
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