Emanuele Aliverti

Department of Statistical Sciences

University of Padova Room 166 - first floor via Cesare Battisti 241 35121, Padova, Italia ■ emanuele.aliverti@unipd.it

emanuelealiverti.github.io (+39)0498274138

[WEB]
[PHONE]
[ORCID]

[ORCID]

PERSONAL DATA

Born in Como on November 27, 1991. Living in Padova. Italian Citizenship.

CURRENT POSITION

Senior Assistant Professor of Statistics - tenure track

[RTDB]

SSD: SECS-S/01 (Statistics - Statistica)

Department of Statistical Sciences, University of Padova (from 23.12.2022)

PAST EXPERIENCES

Senior Assistant Professor of Statistics - tenure track

[RTDB]

SSD: SECS-S/05 (Social Statistics - Statistica Sociale)

Department of Economics, University Ca' Foscari of Venice (oct-2022 – dec-2022)

Junior Assistant Professor of Statistics - fixed term

[RTDA]

SSD: SECS-S/01 (Statistics - Statistica)

Department of Economics, University Ca' Foscari of Venice (sep-2020 – oct-2022)

Post-doctoral fellow

Assegnista di Ricerca

Department of Statistical Sciences, University of Padova (oct-2019 — aug-2020)

Visiting Scholar

Duke University, Department of Statistical Science (oct-2017 — dec-2018)

EDUCATION

> **PhD in Statistics** (Dottorato di Ricerca in Statistica)

Department of Statistical Science, University of Padova (oct-2016 – sep-2019; def 5.2.2020)

- » Thesis title: "Bayesian modeling of complex dependence structures"
- » Supervisors: Bruno Scarpa e David B. Dunson (co-supervisor)
- > Master's Degree in Statistical Sciences (Laurea Magistrale in Scienze Statistiche)
 Department of Statistical Science, University of Padova (oct-2014 sep-2016)
 - » Thesis title: "Contrastare le reti di terroristi. Un modello di classificazione per reti."
 - » Supervisors: Bruno Scarpa
- > Bachelor's Degree in Sociology (Laurea Triennale in Sociologia)

Department of Sociology, University of Milano-Bicocca (oct-2011 — sep-2014)

- » Thesis title: "Il gradiente sociale nella salute e la crisi finanziaria (2006-2012)."
- » Supervisor: Mario Lucchini
- > Maturità scientifica, Liceo Scientifico Enrico Fermi, Cantù (CO) (sep-2005 jul-2010)

ABILITAZIONE SCIENTIFICA NAZIONALE (ASN)

National Qualification for Associate Professor (ASN II fascia)

- > Statistics (*SC 13/D1*; jan-2022)
- > Demography and Social Statistics (SC 13/D3; jun-2022)

TRAINING AND RESEARCH ACTIVITIES

- Visiting Research Scholar, Department of Statistical Science, Duke University (oct-2017

 mar-2018)
- > "Fairness in Machine Learning Workshop", Google Cambridge, Boston (sep-2018)
- > Visiting Research Scholar, Department of Statistical Science, Duke University (sep-2018 nov-2018)
- > Summer School "Probabilistic Machine Learning", Bocconi University (sep-2019)
- > Collaboration with World Health Organization (WHO) on the project "Italian Health Equity Status Report Initiative" (dec-2021)

TEACHING ACTIVITIES -COURSE COORDINATOR

- > Academic year 2023/24
 - Statistical Methods for Functional Data (in Italian) Laurea magistrale in Scienze Statistiche, University of Padova (9 CFU)
- > Academic year 2022/23
 - Statistical Methods for Functional Data (in Italian) Laurea magistrale in Scienze Statistiche, University of Padova (9 CFU)
 - Statistical Methods for Network Data PhD in Economics, University Ca' Foscari (6 hrs)
 - » Metodi quantitativi per la segmentazione e il posizionamento (in Italian) Laurea magistrale in marketing e comunicazione, University Ca' Foscari (6 CFU)
 - Statistical Model and Methods for Finance module I Laurea Magistrale in Economics, Finance, University Ca' Foscari (6 CFU)
- > Academic year 2021/22
 - Statistical Methods for Risk Analysis Laurea Magistrale in Economia e Finanza, University Ca' Foscari (6 CFU)
- > Academic year 2020/21
 - >> Statistical Methods for Risk Analysis

 Laurea Magistrale in Economia e Finanza, University Ca' Foscari (6 CFU)
 - Social Media (in Italian)
 Laurea magistrale in Scienze Statistiche, University of Padova (9 CFU)
- > Academic year 2019/20
 - Social Media (in Italian)
 Laurea magistrale in Scienze Statistiche, University of Padova (9 CFU)

TEACHING ACTIVITIES -LECTURER

- > Academic year 2023/24
 - » Analisi dei dati (Data Mining) (in Italian) Laurea Magistrale in Scienze Statistiche, University of Padova (40 hours)
- > Academic year 2022/23
 - » Summer School in Network Econometrics Italian Econometric Association (SIdE), Università Ca' Foscari (8 hours)
 - » Analisi dei dati (Data Mining) (in Italian) Laurea Magistrale in Scienze Statistiche, University of Padova (40 hours)
- > Academic year 2021/22
 - » Analisi dei dati (Data Mining) (in Italian) Laurea Magistrale in Scienze Statistiche, University of Padova (40 hours)
 - » Health Data Science Laurea Magistrale in Data Analytics for Business, University Ca' Foscari (20 hours)
- > Academic year 2017/18
 - Statistica per l'Economia e le Scienze Sociali (in Italian)
 Laurea Triennale in Economia, Università di Modena e Reggio Emilia (30 ore)

STUDENTS SUPERVISION

University of Padova

THESIS SUPERVISION, MASTER IN STATISTICS

- » Sara Zanette (in corso)
- » Paolo Dallavalle (in progress)
- » Enrico Scquizzato (in progress)
- » Gianluca Tori (in progress)
- » Maria Gallo (in progress)
- » Angela Andrigo (in progress)
- **»** Beatrice Basso (in progress)
- Enrico Ceccolini (in progress)
 [CO-SUPERVISOR: Christian Capezza]
- » Virginia Murru (2023) "Studio dell'evoluzione di una rete sociale: un'analisi tramite modelli bayesiani per reti"
- » Giulia Pacchetti (2022) "Analisi della traiettoria di tiro da tre punti nella pallacanestro tramite modelli funzionali"
- » Alessio Piraccini (2022) L'analisi di Big Data nel cloud: panoramica e applicazioni
- » Marco Shehata (2022) "Modelli statistici per l'analisi di processi di punto: un'applicazione sullo storico derby di Milano"
- » Chiara Bellio (2022) "Analisi di un'organizzazione criminale attraverso modelli di rete temporali"
- » Riccardo Fassina (2022) "Modellazione di dati cross-sezionali tramite tensori: un approccio Bayesiano non-parametrico"
- >> Francesca Stecca (2022) "Hashjacking su TikTok: analisi di contenuti italiani tramite modelli a classi latenti"
- » Francesca Nardone (2021) "Dibattiti presidenziali americani e Twitter: modelli per dati di rete sui protagonisti del 2020"
- » Ludovico Copetti (2021) "Modelli per dati di rete in un contesto dinamico: analisi delle relazioni tra account troll"
- » Iulia Maria Breda (2021) "L'epidemia delle opinioni. Analisi dei tweet contrari alla vaccinazione Sars-Cov-2"
- » Emanuele Donà (2021) "Profili falsi e profili reali: identificazione di account illegittimi tramite classificazione con informazioni di rete"

THESIS CO-SUPERVISION, MASTER IN STATISTICS

- » Daniele Vallotto (2021) "Comparazione reti di amicizia a Venezia tra il 700' e 800': un'analisi di atti matrimoniali" [SUPERVISOR: Bruno Scarpa]
- Federico Zanghi (2020) "Analisi delle curve di mortalità negli anni: processo di Dirichlet per dati funzionali con dipendenza temporale" [SUPERVISOR: Bruno Scarpa]
- Sofia Curzio (2020) "Analisi funzionale di curve di mortalità con un approccio bayesiano non parametrico" [SUPERVISOR: Bruno Scarpa]
- » Marco Viano (2020) "La società veneziana del '700: un'analisi di atti matrimoniali tramite modelli bayesiani per reti sociali" [SUPERVISOR: Bruno Scarpa]

University Ca' Foscari Venezia

THESIS SUPERVISION, MASTER IN ECONOMICS, FINANCE AND SUSTAINABILITY

- » Giovanni Carlesso (2023) "Analysis of Financial Independence and Retire Early"
- » Leonardo Maritan (2023) "Machine Learning Models for Bankruptcy Prediction"
- >> Veronica Serafini (2023) "Sentiment Analysis for Bitcoin Price Prediction via Machine Learning"
- » Suela Rakipaj (2022) "Financial literacy in Albania"
- » Silvia Bellinzona (2022) "A multivariate analysis to discover the relation between cryptocurrencies and CO2 emissions"
- » Giacomo Beggio (2022) "Bankruptcy prediction via machine learning"

THESIS SUPERVISION, MASTER IN MARKETING AND COMMUNICATION

- » Nicola Evangelisti (2023) "La percezione della carne sintetica"
- » Claudia Borgogelli (2023) "La percezione della privacy su Twitter"

INSTITUTIONAL ACTIVITIES

Institutional activity

- > Board member and Mediator of the PhD School in Statistics Dipartimento di Scienze Statistiche, Università di Padova (dal 2023)
- > Board member of the MsC in Statistics (Laurea Magistrale in Scienze Statistiche) Dipartimento di Scienze Statistiche, Università di Padova (2019-20, 2023-)

Roles in scientific societies

- > Coordinator of ySIS, from the Italian Statistical Society (2021)
- > Elected member of of ySIS, from the Italian Statistical Society (2020 21)
- > Member of the Editorial Board of Young Statistician Europe FENStatS (YSE), supported by IMS and the Bernoulli Society (since oct-2020)

Membership to scientific societies

- > American Statistical Association (ASA, since 2022)
- > Società Italiana di Statistica (since 2016)
- > International Society for Bayesian Analysis (ISBA, since 2017)
- > Bayesian Learning Laboratory (BAYESLAB, since 2019)
- > Complex Data Modeling Research Network (MIDAS, since 2019)

RESEARCH AWARDS

- > VERA award from the Department of Economics, University Ca' Foscari Venezia, for the article "Aliverti, E., Mazzuco, S. and Scarpa B. (2022). *Dynamic modeling of mortality via mixtures of skewed distribution functions*. Journal of the Royal Statistical Society, Series A" (oct-2022)
- > VERA award from the Department of Economics, University Ca' Foscari Venezia, for the article "Aliverti, E., Lum, K., Johndrow J. and Dunson D. (2021). *Removing the influence of a group variable in high-dimensional predictive modelling*. Journal of the Royal Statistical Society, Series A." (set-2021)
- > Selected participant to the workshop "Climbing Mortality Models", organized by Padova and Bocconi Universities (aug-2022)
- > Award "Best presentation" from the Italian Statistical Society within the conference SIS 2019 (Milano), for the talk "Composite mixture of log-linear models" (jun-2019)
- > Travel award for the congress O-Bayes 2019 (Warwick); poster presented: "Variational inference for network factor models" (jul-2019)
- > Selected participant to the workshop "Data Research Camp", organized by Padova University (jul-2019)
- > Young researcher travel award for the congress ISBA 2018; poster presented: "Bayesian modeling of contingency tables subject to mutual information constraints" (jul-2018)
- > Full travel support sponsored by Google for the workshop "Fairness in Machine Learning Workshop (Boston); poster presented: "Categorical data subject to fairness constraints" (sep-2018)
- > Selected participant to the workshop "Startup-Research", organized by y-SIS (jun-2017)

RESEARCH GRANTS

Principal investigator

> Project ADIR "Bayesian modelling of complex structures" (Department of Economics, University Ca' Foscari, 2020/23)

Participation to research projects

- > Progetto di Rilevante Interesse Nazionale (PRIN) "Unfolding the SEcrets of LongEvity: Current Trends and future prospects (SELECT)"
 PI: Stefano Campostrini (University Ca' Foscari, 2019/22)
- > Grant "Spatial dependence models for real estate markets". PI: Mariangela Guidolin (University di Padova, 2019/21)
- > Grant "Fair predictive algorithms", Laura and John Arnold Foundation (2017) PI: David Dunson (Duke University, 2017/19)
- > Grant "Bayesian inference on brain network data" PI: Bruno Scarpa. (University of Padova, 2017)

SEMINARS AND INVITED TALKS

Seminars

- > "Bayesian modeling of multivariate discrete data" Department of Statistical Sciences, Università degli studi di Padova (jun-2023)
- > "Stochastic variational inference for high-dimensional networks" Department of Management, Economics and Statistics Università Milano-Bicocca (mar-2023)
- > "Essentials of linear and logistic regression and penalized methods" Summer School in Social Statistics, Anacapri (oct-2022)
- "Stratified stochastic variational inference for networks"
 Department of Environmental Sciences, Informatics and Statistics University Ca' Foscari (jun-2022)
- > "Bayesian dynamic modeling of psychological traits and behaviors during Covid-19" COVID-19 Forecast and Prediction (online, jun-2021)
- > "Composite mixture of log-linear models with applications to psychiatric studies" Florida State University, Florida (online, oct-2020)
- > "Bayesian modeling of network data" Binary data Lab opening, Dhaka, Bangladesh (online, jul-2020)

Discussant

- > Discussant of the invited session "Statistical Learning of demographic and health dynamics", SIS2023, Ancona (jun-2023)
- > Discussant of "Inferring the number of components in a mixture: dream or reality?" by Christian P. Robert Statistical methods and models for complex data, Padova (sep-2022) ☑

Invited talks

- > "Bayesian modeling of disease networks" SELECT-PRIN *final workshop*, Venezia (jul-2023)
- > "Stochastic variational inference for networks" *Greek Stochastic* ν' , Naxos, Greece (jul-2023)
- > "Dynamic modelling of mortality via mixtures of skewed distribution functions" *Climbing Mortality Models Workshop*, Misurina (aug-2022)

- "Enriched functional Dirichlet process for mortality modeling" SIS 2022, Caserta (jun-2022)
- "Latent space models for business networks" ISBIS 2022 Napoli (jun-2022)
- > "Modeling of psychological traits during Covid-19 pandemic"

 Workshop PRIN17 "Advances in mortality and morbidity modeling", Venezia (oct-2021)
- "Bayesian dynamic modeling of psychological traits" CLADAG 2021, Firenze (sep-2021)
- > "Scalable Variational inference for network data"

 10th International Conference of the ERCIM, London (dec-2021)
- "Bayesian dynamic modeling of psychological traits" CLADAG 2021, Firenze (sep-2021)
- > "Modellazione Bayesiana di dati categoriali" XXVI Congresso AIP Sezione Sperimentale, Milano (sep-2020, in Italian)
- > "Composite mixture of loglinear models for multivariate categorical data" *BNP4CD final meeting*, Padova (jan-2020)
- > "Bayesian modeling of brain connectivity data via latent space models" StaTalk2019, Trieste (nov-2019)
- > "Modellazione Bayesiana di dati di rete cerebrali" XXV Congresso AIP Sezione Sperimentale, Milano (sep-2019, in Italian)
- > "Composite mixture of loglinear models for multivariate categorical data" SIS 2019, Milano (jun-2019)
- > "Low rank approximation with fairness guarantees" *7th International Conference of the ERCIM*, Pisa (dec-2018)

CONTRIBUTED TALKS AND POSTERS

Contributed talks

- > "Bayesian modeling of high-dimensional networks" 5th European Conference on Social Networks, Napoli (online, jun-2021)
- > "A Bayesian semi-parametric model for classification of terrorist networks" SIS 2017, Firenze (jun-2017)

Poster presentations

- "Variational inference for network factor models"
 O-Bayes 2019, Warwick (jul-2019)
- > "Categorical data subject to fairness constraints"
 Fairness in Machine Learning Workshop, Google, Boston (sep-2018)
- > "Bayesian modeling of contingency tables subject to mutual information constraints" ISBA 2018, Edinburgh (jul-2018)
- > "A Bayesian semi-parametric model for classification of terrorist networks" 6th International Workshop on social network analysis, Napoli (may-2017)

ORGANIZATION SCIENTIFIC EVENTS

- **Organization of** > Member of the organizing committee of "BAYSM-24", Venezia (giu-2024)
 - > Organizer and chair of the session "Applied Bayesian Modeling", 10th International Conference of the ERCIM, London (dec-2021)
 - > Chair of the organizing committee, workshop PRIN "Advances in mortality and morbidity modeling", Venezia (oct-2021)

- > Organizer and chair of the session "Light methods for hard problems", SIS 2021, Pisa (online, jun-2021)
- > Member of the organizing committee, SIS21 satellite event "Covid-19: the urgent call for a unified statistical and demographic challenge", Pisa (online, jun-2021)
- > Organizer and chair of the webinar "Developments in Bayesian Nonparametrics", Youngstats One-world seminar (online, may-2021)

CONSULTING, OUTREACH

Consulting for private companies and public institutions

- > Short course "Statistical Learning", MIB Generali Trieste (12 hours, may-2021)
- > Consulting on the project "IHESR Analisi Regione Veneto" (WHO, dec-2021)
- > Short course "Statistical Learning", MIB Generali Trieste (12 hours, sep-2020)

Outreach

- > Divulgative talk "Modelli di machine learning senza pregiudizi" Data Beers Padova (mar-2019)
- > Interview in the podcast Behind Data "Il lavoro del professore universitario"
- > Intervista in the podcast Mirradio "Algoritmi e bias" 🗹

EDITORIAL ACTIVITY

Referee

> Advances in Data Analysis and Classification; Annals of Applied Statistics; Bayesian Analysis; Biometrics; Biometrika; Communication in Statistics; Computational Statistics and Data Analysis; Electronic Journal of Operational Risk; Journal of Computational and Graphical Statistics; Journal of Machine Learning Research; Journal of the American Statistical Association; Journal of the Royal Statistical Society; Mathematics; Network Science; Neuroimage; PLOS-ONE; Statistical Methods & Applications; Stat.; Statistical Science (alphabetical order)

SOFTWARE

R packages

> BCTSNE. Projected t-SNE method for batch correction. [CRAN] ☑

> SVILF. Stratified stochastic variational inference for networks. [Github]

> MILLS. Composite mixture of log-linear models for categorical data. [Github]

RESEARCH INTERESTS

Statistical methods for social issues

Many issues of great societal interest require the development of appropriate statistical models and methods, extending classical techniques to answer research questions appropriately. With this in mind, the work (9) focuses on the development of statistical methods for making fair decisions: defined as those that can eliminate biases related to sensitive information, such as ethnic group or gender, in high-dimensional data. This issue has been of great interest in various application areas, including models for the risk of recidivism (used, in the United States, during trial decisions) or models to facilitate hiring processes in large companies. The work (11) extend the methods developed in these contexts to solve problems that arise in different research fields, such as bioinformatics.

Bayesian methods for multivariate categorical data

Multivariate categorical data are recurrent in several scientific areas, such as medical, social and business fields where it is of interest to measure variables on discrete scales; for example, levels of liking, opinions or perceptions. The work (6), motivated by an application in psychiatry, develops a Bayesian model capable of combining the benefits of log-linear approaches with latent class models, to obtain a representation that is flexible, compact and easy to interpret, and therefore useful for answering research questions. The work (3) proposes a Bayesian latent class model for data from repeated cross-sectional surveys, and allows to model the evolution of behaviors in a flexible and easily interpretable way, controlling for several concomitant factors.

Statistical methods and models for network data

In many applied settings, observations consists of interconnected units and can be naturally represented as networks, These data motivate statistical methodologies that can appropriately model such dependency structures, balancing flexibility and parsimony. The article (12) develops a Bayesian latent-space model for networks of brain connections, capable of characterizing the effect of structural information on connections between brain regions, accounting for the internal dependency structure. From a computational point of view, such Bayesian latent-space models encounter difficulties on large networks. The article (5) proposes a novel computational approach based on variational techniques, and allows the posteriori distribution of network factor models to be approximated quickly and accurately.

PUBLICATIONS Journal Articles

- 1. Rigon, T. and **Aliverti, E.** (2023). Conjugate priors and bias reduction for logistic regression models. *Statistics and Probability Letters* [doi: 10.1016/j.spl.2023.109901]
- 2. **Aliverti, E.**, Arellano-Valle, R.B., Kahrari, F. and Scarpa, B. (2023). A flexible two-piece normal dynamic linear model. *Computational Statistics* [doi: 10.1007/s00180-023-01355-3]
- 3. Aliverti, E. and Russo M. (2022). Dynamic modeling of the Italians' attitude towards Covid-19. *Statistics in Medicine*. 41 (26): 5189–5202 [doi: 10.1002/sim.9560]
- 4. **Aliverti, E.**, Mazzuco, S. and Scarpa B. (2022). Dynamic modeling of mortality via mixtures of skewed distribution functions. *Journal of the Royal Statistical Society, Series A.* 185(3), 1030-1048 [doi:10.1111/rssa.12808]
- 5. **Aliverti, E.** and Russo M. (2022). Stratified stochastic variational inference for high-dimensional network factor model. *Journal of Computational and Graphical Statistics*, 31:2, 502-511 (doi:10.1080/10618600.2021.1984929)
- 6. **Aliverti, E.** and Dunson D. (2022). Composite mixture of log-linear models with application to psychiatric studies. *Annals of Applied Statistics*, 16(2) 765-790 (2) [doi:10.1214/21-AOAS1515]
- 7. Toffol, E., **Aliverti, E.**, Idotta, C., Capizzi, G., Scocco, P. and SOPROXI Team (2022). Are empathy profiles and perceived social support associated with depressive and grief-related symptoms in suicide survivors? *Journal of Clinical Psychology* [doi:10.1002/jclp.23402]
- 8. Pastore, A., Tonellato S. F., **Aliverti, E.** and Campostrini, S. (2022). When does morbidity start? An analysis of changes in morbidity between 2013 and 2019 in Italy. *Stat. Methods Appl. (in press)* [doi:10.1007/s10260-022-00668-9]

- 9. **Aliverti, E.**, Lum, K., Johndrow J. and Dunson D. (2021). Removing the influence of a group variable in high-dimensional predictive modelling. *Journal of the Royal Statistical Society, Series A.*, 184: 791-811 [7] [doi:10.1111/rssa.12613]
- 10. Scocco P., **Aliverti, E.**, Toffol E., Andretta G., Capizzi G. (2020). Empathy profiles differ by gender in people who have and have not attempted suicide. *Journal of Affective Disorders Reports*. 2, 2020, 100024 [doi:10.1016/j.jadr.2020.100024]
- 11. **Aliverti, E.**, Tilson, J., Filer, D., Babcock, B., Colaneri, A., Ocasio, J., Gershon, T., Wilhelmsen, K. and Dunson, D. (2020). Projected t-SNE for batch correction. *Bioinformatics*, 36(11), 2020, 3522–3527 [doi:10.1093/bioinformatics/btaa189]
- 12. **Aliverti, E.**, Durante D. (2019). Spatial modeling of brain connectivity data via latent distance models with nodes clustering, *Statistical Analysis and Data Mining ASA Data Science Journal*, 12, 185-196 (doi:10.1002/sam.11412)

Discussions

- 13. Rigon, T., Aliverti, E., Russo, M., and Scarpa, B. (2021). A discussion on: "Centered partition processes: Informative priors for clustering" Paganin, S., Herring, A. H., Olshan, A. F., Dunson, *Bayesian Analysis*, 16(1), 348-350 [doi:10.1214/20-BA1197]
- 14. **Aliverti, E.**, Paganin, S., Rigon, T. and Russo, M. (2019). A discussion on: "Latent nested nonparametric priors" by Camerlenghi, F., Dunson, D.B., Lijoi, A., Prünster, I. and Rodriguez, *Bayesian Analysis*, 14(4), 1346–1348 [doi:10.1214/19-BA1169]

Book Chapters

15. **Aliverti, E.**, Durante D. and Scarpa B. (2020). Projecting Proportionate Age–Specific Fertility Rates via Bayesian Skewed Processes. *Developments in Demographic Forecasting*. The Springer Series on Demographic Methods and Population Analysis, vol 49. Springer, Cham

[doi:10.1007/978-3-030-42472-5]

16. Aliverti, E., Forastiere L., Padellini T., Paganin S. and Wit E. (2018). Hierarchical Graphical Model for Learning Functional Network Determinants. *Studies in Neural Data Science*. START UP RESEARCH 2017. Springer Proceedings in Mathematics & Statistics, vol 257. Springer, Cham [doi:10.1007/978-3-030-00039-4]

Refereed conference proceedings

- 17. **Aliverti, E.**, Scarpa, B. (2022). Bayesian nonparametric modeling of mortality curves via functional Dirichlet processes, in *Book of Short Papers SIS 2022*, Pearson, Torino [ISBN 9788891932310]
- 18. **Aliverti, E.** (2021). Bayesian nonparametric dynamic modeling of psychological traits, in *Cladag 2021 Book of Short Papers*, Firenze University Press, Firenze [ISBN 9788855183406]
- 19. Mazzuco, S., **Aliverti, E.**, Durante, D. and Campostrini, S. (2021). Causes of death patterns and life expectancy: looking for warning signals, in *Book of Short Papers SIS 2021*, Pearson, Torino [ISBN 9788891927361]
- 20. Aliverti, E., Campostrini, S., Caldura F. and Zanotto L. (2021). Spatial modeling of childcare services in Lombardia. *Book of Short Papers SIS 2021*, Pearson, Torino

- 21. **Aliverti, E.** (2020). Bayesian modelling of Facebook communities via latent factor models, in *Book of Short Papers SIS 2020*, Pearson, Torino [ISBN 9788891910776]
- 22. Durante, D. and **Aliverti, E.** (2017). Spatial modeling of brain connectivity data, in *Cladag 2017 Book of Short Papers*, Universitas Studiorum, Mantova [ISBN 9788899459710]
- 23. **Aliverti, E.** (2017). A Bayesian semi-parametric model for terrorist networks, in *Proceedings of the Conference of the Italian Statistical Society 2017*, 405, Firenze University Press, Firenze [ISBN 9788864535210]

Monographs

24. **Aliverti, E.** (2020). *Bayesian modeling of complex dependence structures*. PhD Thesis, University of Padova