Dr. Silvia Montagna

CURRICULUM VITAE

Contact Dipartimento di Scienze Economico-sociali e Matematico-statistiche (ESOMAS)

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ACADEMIC POSITIONS

Ricercatrice Tempo Determinato Tipologia A (Legge n. 240/10)

Dipartimento di Scienze Economico-sociali e Matematico-statistiche (ESOMAS)

Università degli Studi di Torino, since 22 December 2017

Lecturer

School of Mathematics, Statistics & Actuarial Science University of Kent (UK), January – December 2017

Post-doctoral Research Fellow

Department of Statistics, University of Warwick (UK), January 2014 – December 2016

EDUCATION

Duke University, Durham, North Carolina USA (August 2009 - December 2013)

Ph.D. in Statistical Science, Adviser: Prof. Surya T. Tokdar

Title: On Bayesian Analyses of Functional Regression, Correlated Functional Data and Non-homogeneous Computer Models

Collegio Carlo Alberto, Moncalieri (September 2007 - July 2009)

Master of Arts in Economia del Programma Allievi

Università degli Studi di Torino, Torino (September 2007 - July 2009)

Laurea Magistrale summa cum Laude in Economia Adviser: Prof. Massimo Marinacci (Università Bocconi)

Università degli Studi di Pavia, Pavia (September 2004 - July 2007)

Laurea Triennale summa cum Laude in Economia Adviser: Prof. Antonio Lijoi (Università Bocconi)

PUBLICATIONS

Montagna, S., Orani, V., and Argiento, R. (2020). Bayesian Isotonic Logistic Regression via Constrained Splines: An Application to Estimating the Serve Advantage in Professional Tennis. *Statistical Methods & Applications*, DOI: 10.1007/s10260-020-00535-5.

Samartsidis, P., Seaman, S. R., **Montagna, S.,** Charlett, A., Hickman, M., and De Angelis, D. (2020). A Multivariate Factor Analysis Model for Evaluating an Intervention Using Time-series Observational Data. *Journal of the Royal Statistical Society, Series A*, Vol. **183**, 1437–1459

Samartsidis, P., **Montagna, S.**, Laird, A. R., Fox, P. T., Johnson, T., and Nichols, T. E. (2019). Estimating the Prevalence of Missing Experiments in a Neuroimaging Meta-analysis. *Research Synthesis Methods*, Vol. **11**, 866–883.

Montagna, S. and Hopker, J. (2018). A Bayesian Approach for the Use of Athlete Performance Data Within Anti-doping. *Frontiers in Physiology*, DOI: 10.3389/fphys.2018.00884.

Montagna, S., Wager, T., Feldman Barrett, L., Johnson, T. D., and Nichols, T. E. (2018). Spatial Bayesian Latent Factor Regression Modelling of Coordinate-based Meta-analysis Data. *Biometrics*, Vol. **74**, 342–353.

Samartsidis, P., Montagna, S., Johnson, T. D., and Nichols, T. E. (2017). The Coordinate-based Meta-analysis of Neuroimaging Data. *Statistical Science*, Vol. **32**, 580–599.

Montagna, S., and Tokdar, S. T. (2016). Computer Emulation with Non-stationary Gaussian Processes. SIAM/ASA Journal on Uncertainty Quantification, Vol. 4, 26–47.

Montagna, S., Tokdar, S. T., Neelon, B., and Dunson, D. B. (2012). Bayesian Latent Factor Regression for Functional and Longitudinal Data. *Biometrics*, Vol. 68, 1064–1073.

Under review

Dolmeta, P., Argiento, R., and Montagna, S. (2021). Bayesian GARCH Modeling of Functional Sports Data, Submitted to AStA Advances in Statistical Analysis.

TEACHING

Università di Torino, Torino

MSc in Stochastics & Data Science (Mathematics Department): Statistical Machine Learning (EN), 6 CFU, since February 2018 Bayesian Statistics (EN), 3 CFU, since September 2019

University of Kent, Canterbury, Kent UK

Stochastic Models in Ecology and Medicine, MSc in Statistics, February – April 2017

Duke University, Durham, North Carolina USA

Probability and Statistical Inference, BSc in Statistical Science, May - June 2013

SUPERVISIONS

Claudia Berloco, PhD in Modelling & Data Science, Univ. di Torino (Nov 2018 - present) Topic: Bayesian spatial models for credit risk management

Patric Dolmeta, MSc in Stochastics & Data Science, Univ. di Torino (Ott 2019 - present) Topic: Bayesian functional regression for sports data

Emilio Herreman, MSc in Stochastics & Data Science, Univ. di Torino (2019)

Topic: Siamese convolutional neural networks for image similarity

Current: Senior data scientist, Evo Pricing, Torino

Vanessa Orani, MSc in Stochastics & Data Science, Univ. di Torino (2019)

Topic: Bayesian isotonic logistic regression via constrained splines Current: Research scholar, Consiglio Nazionale delle Ricerche, Genova

Gianluca Zoppo, MSc in Stochastics & Data Science, Univ. di Torino (2018)

Topic: Hamiltonian Monte Carlo for fitting point distribution models

Current: Phd in Electrical, Electronics and Communications Engineering, Politecnico di Torino

Hashani Kumarasinghe, MSc in Stochastics & Data Science, Univ. di Torino (2018)

Topic: Machine learning methods to detect default propagation Current: Software engineer, Zone 24×7, Colombo, Sri Lanka

Eleni Changoudi, MSc in Statistics, University of Kent (2017)

Title: Model-based summaries in Bayesian point-pattern analysis: a comparison with nonparametric estimates

PhD Committees External examiner, PhD in Psychology, University of Ghent, Belgium (2019) Internal examiner, PhD in Statistics, University of Kent, UK (2017)

INVITED / Contributed TALKS

12-th ERCIM International Conference on Computing and Statistics. University of London, London, UK, December 2019

4-th East Asia Meeting on Bayesian Statistics. Kobe University, Kobe, Japan, July 2019 11-th ERCIM International Conference on Computing and Statistics. University of Pisa, Pisa, Italy, December 2018

9-th ERCIM International Conference on Computing and Statistics. University of Seville, Seville, Spain, December 2016

Spatial Statistics: Emerging Patterns. University of Avignon, Avignon, France, June 2015 7-th ERCIM International Conference on Computing and Statistics. Università di Pisa, Pisa, December 2014

INVITED SEMINARS Journal Club, The International Biometric Society, Online meeting, June 2018 Statistics Seminars, The University of Edinburgh, Edinburgh, UK, October 2017 Statistics Seminars, Università Bocconi, Milano, April 2016 Decision Research at Warwick (DR@W) Forum, University of Warwick, Coventry, UK, February 2016

Young Researchers Meeting, University of Warwick, Coventry, UK, December 2014 Stats Seminars, Nestlé Institute of Health Sciences, Lausanne, Switzerland, January 2014 Statistics Seminars, Collegio Carlo Alberto, Moncalieri (To), December 2012

OTHER

2018 ISBA World Meeting, Edinburgh, UK, June 2018

PRESENTATIONS (POSTER)

2016 ISBA World Meeting, Santa Margherita di Pula (CA), June 2016

Organisation for Human Brain Mapping 2015 Annual Meeting, Hawaii Convention Centre,

Honolulu, Hawaii, June 2015

2012 ISBA World Meeting, Kyoto, Japan, June 2012

Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park,

NC USA, April 2012

Funding

2018 – 2020 PI of the ESOMAS Department research project titled Bayesian Analysis of

Dependent Functional Data, Università di Torino

2019 – 2021 Coordinator of the ESOMAS Department research project titled *Bayesian Analysis of Non-exchangeable Data*, Università di Torino. Research team:

Pierpaolo De Blasi, Luigi Bollani, Stefano Favaro, Matteo Ruggiero

AWARDS

Early Career Researchers Travel Grant

ISBA 2016 World Meeting, Sardinia, Italy, June 2016

Early Career Researchers Travel Grant

ISBA 2012 World Meeting, Kyoto, Japan, June 2012

SAMSI Graduate Student Fellowship

SAMSI, Research Triangle Park, NC USA, August 2011 - June 2012

Memberships

International Society for Bayesian Analysis (ISBA)

Professional Service Secretary, Junior ISBA (j-ISBA) Section, January 2016 - December 2017

Program Chair, Junior ISBA (*j*-ISBA) Section, January 2014 - December 2015

ORGANISATION OF SCIENTIFIC EVENTS

With j-ISBA members:

- Invited Session titled "Nonparametric Bayesian Analysis of Copula Models", 10-th International Conference of the ERCIM Working Group on Computational and Methodological Statistics, University of London, London, UK, December 2017
- Topic-contributed session titled "Junior Research in Bayesian Modeling for High-dimensional Data", Joint Statistical Meetings, Baltimore, USA, July 2017
- Invited Session titled "Bayes: Legacy", ISBA World Meeting, Sardinia, Italy, June 2016

EDITORIAL ACTIVITY Reviewed articles for: Bayesian Analysis, Biometrics, Journal of the American Statistical Association (Applications and Case Studies), NeuroImage, Statistics & Its Interface, Statistics & Probability Letters, Statistics in Biosciences, Technometrics

LOCAL ADMINISTRATIVE DUTIES Final examination committee

MSc in Stochastics & Data Science, Univ. di Torino, since January 2018

Statistics Seminars coordinator

University of Kent (UK), April – December 2017

Young Researchers Meetings coordinator

University of Warwick (UK), September 2015 - June 2016

Neuroimaging Statistics Seminars coordinator

University of Warwick (UK), September 2014 - June 2016 Post-doc committee University of Warwick (UK), September 2015 - June 2016