

**CURRENT
POSITION***October 2020*

Assistant professor (RTD-a)
Department of Economics, Business, Mathematics and Statistics *Bruno de Finetti*
University of Trieste - Trieste, Italy

**PREVIOUS
ACADEMIC
POSITIONS***March 2019 – September 2020*

Adjunct Professor (Statistical Methods for Data Science, Bayesian Statistics)
Department of Mathematics and Earth Sciences
University of Trieste - Trieste, Italy

March 2018 – February 2020

Postdoctoral research fellow (Statistics, SECS-S/01)
Department of Economics, Business, Mathematics and Statistics *Bruno de Finetti*
University of Trieste - Trieste, Italy *January 2016 – July 2016*

VISITING RESEARCHER

Department of Statistics, Columbia University, New York, USA
Supervisor: Prof. Andrew Gelman.

November 2014 – November 2017

PH.D. CANDIDATE (XXX CYCLE)
Department of Statistical Sciences
University of Padua - Padova, Italy

ACADEMIC
DEGREES

29 March 2018

PH.D. IN STATISTICAL SCIENCES

Thesis “Developments in Bayesian Hierarchical Models and Prior Specification with Application to Analysis of Soccer Data”, Department of Statistical Sciences, University of Padova (Italy).

Supervisor: Prof. Nicola Torelli (UNITS); Co-supervisor: Prof. Francesco Pauli (UNITS).

MASTER IN STATISTICAL AND ACTUARIAL SCIENCES (110/110 cum laude)

Thesis “A Comparison Between Bayesian Hierarchical Models for the Meta-Analysis of Data from Pre-Electoral Polls”

Dipartimento di Scienze Economiche, Aziendali, Matematiche e Statistiche “Bruno de Finetti” (DEAMS)

Università degli Studi di Trieste, Trieste (Italy)

Supervisor: Prof. Nicola Torelli. Co-supervisor: Francesco Pauli.

14 July 2011

BACHELOR IN STATISTICS AND INFORMATICS FOR THE INDUSTRY, THE FINANCE AND THE INSURANCE (106/110)

Thesis “Considerazioni sul principio di arbitraggio”

Dipartimento di Scienze Economiche, Aziendali, Matematiche e Statistiche “Bruno de Finetti” (DEAMS)

Università degli Studi di Trieste, Trieste (Italy)

Supervisor: Prof. Marco Zecchin.

AFFILIATIONS

Member of the Italian Statistical Society (SIS).

Elected member in the board of the Young group of the Italian Statistical Society (y-SIS) (2019-2020)

Deputy chair of the ISI Special Interest Group On Sports Statistics

External collaborator of AUEB Sports Analytics Group (University of Athens).

TEACHING

Curricular courses

STATISTICAL METHODS FOR DATA SCIENCES

Labs and exercises with R: 12 h

Master degree in *Data Science and Scientific Computing*

University of Trieste

A. Y.: 2017-2018; 2018-2019

STATISTICAL METHODS FOR DATA SCIENCES

Frontal lectures: 16 h

Master degree in *Data Science and Scientific Computing*

University of Trieste

A. Y.: 2019-2020; 2020-2021

BAYESIAN STATISTICS

Frontal lectures: 32 h

Master degree in *Data Science and Scientific Computing and Actuarial and Statistical Sciences*

University of Trieste

A. Y.: 2018-2019; 2019-2020; 2020-2021

PhD Courses

31 May 2019

GLMM - BAYESIAN INFERENCE WITH STAN
Frontal lectures + labs, 5 hours
PhD school in *Statistical Sciences*, University of Padova

May 2020

GLMM - BAYESIAN INFERENCE WITH STAN
Frontal lectures + labs, 12 hours
PhD school in *Statistical Sciences*, University of Padova

March - April 2021

GLMM - GENERALIZED LINEAR MIXED MODELS
Frontal lectures, 15 hours
PhD school in *Statistical Sciences*, University of Padova

Extra-curricular

27 September - 29 September 2017

INTRODUCTION TO BAYESIAN DATA ANALYSIS WITH STAN
Frontal lectures+labs, 21 hours (with Jonah Sol Gabry, Research Fellow at Columbia University)
Joint Research Center (JRC), Sevilla.

11 December - 13 December 2017

INFERENZA STATISTICA BAYESIANA: PRINCIPI, METODI E APPLICAZIONI
Frontal lectures+labs, 13 hours
ARPA (Agenzia regionale per la protezione dell'ambiente) Friuli-Venezia Giulia, sede di Palmanova.

18 July - 20 July 2018

R COURSE FOR SWG
Frontal lectures+labs (with Francesco Pauli and Roberta Pappadà, University of Trieste)
Department of Business, Economics, Mathematics and Statistics, University of Trieste

10 September - 14 September 2018

INTRODUCTION TO BAYESIAN DATA ANALYSIS WITH STAN
Frontal lectures+labs (with Jonah Sol Gabry, Research Fellow at Columbia University)
Introduction to Bayesian Data Analysis with Stan
Department of Brain and Behavioral Sciences, University of Pavia

24 October - 26 October 2018

R: AN ENVIRONMENT FOR STATISTICAL MODELLING AND GRAPHICS
Frontal lectures+labs (with Nicola Torelli and Giovanni Millo, professors at University of Trieste)
Assicurazioni Generali

30 September - 4 October 2019

INTRODUCTION TO BAYESIAN DATA ANALYSIS WITH STAN

Frontal lectures+labs, 36 hours (with Gioia Di Credico, postdoctoral Research Fellow at University of Trieste)

Department of Brain and Behavioral Sciences, University of Pavia

- AWARDS AND SCHOLARSHIPS** Doctoral Scholarship (2014–2017) granted by University of Padua - Padova (Italy).
- COMPUTER SKILLS** R (proficient), WinBUGS (good), SAS (basic), Visual Basic (basic), Java (good), Excel (good), Stan (good). \TeX , Microsoft Word.
- LANGUAGE SKILLS** Mother tongue: Italian
Fluent spoken and written English
Basic spoken and written German
- RESEARCH INTERESTS** Mixture models
Hierarchical Bayesian models
Models for sports data
Priors elicitation
Clustering methods
R packages
- PRESENTATIONS: SEMINARS AND CONFERENCE TALKS** *ISBA 2016* (International Society for Bayesian Analysis)
Egidi L., Pappadà R., Pauli F. and Torelli N.. Relabelling in Bayesian Mixture Models by Pivotal Units (Poster session). Santa Margherita di Pula (Cagliari), Italy, 13-17 June 2016.
- MBC2* (Workshop on Model-Based Clustering and Classification)
Egidi L., Pappadà R., Pauli F. and Torelli N.. Relabelling in Bayesian Mixture Models by Pivotal Units (Poster session). Università degli Studi di Catania, Catania, Italy, 5-7 September 2016.
- SISBAYES meeting 2017* (Workshop organized by the permanent working group on Bayesian Statistics of the Italian Statistical Society)
Egidi L., Pauli F. and Torelli N.. A Hierarchical Bayesian Model for the Football Scores Using the Bookmakers Odds (Poster session). Università La Sapienza, Roma, Italy, 7-8 February 2017.
- BISP 10* (Workshop on Bayesian Inference in Stochastic Processes)
Egidi L., Pauli F. and Torelli N.. Mixture data-dependent priors (Poster session). Bocconi University, Milano, Italy, 13-15 June 2017.
- MathSport International 2017 Conference*
Egidi L., Gabry J.S. Bayesian hierarchical models for predicting individual performance in football (soccer) (Talk). Università degli Studi di Padova, Padova, Italy, 26-28 June 2017.

AUEB Sports Analytics Workshop 2017

Egidi L., Pauli F. and Torelli N.. A Hierarchical Bayesian Model for the Football Scores Using the Bookmakers Odds. (Invited talk). Athens University of Economics and Business, Athens, Greece, 7-8 November 2017.

49th Scientific meeting of the Italian Statistical Society

Egidi L., Pauli F. and Torelli N.. Are the shots predictive for the football results? (Invited talk). Palermo, June 20-22 2018.

ISBA 2018 (International Society for Bayesian Analysis)

Egidi L., Pauli F. and Torelli N.. Mixture data-dependent priors (Poster session). Edinburgh, Scotland, 25-29 June 2018.

StanCon 2018

Egidi L., Pauli F. and Torelli N.. Are shots predictive of soccer results? Helsinki, 29-31 August 2018.

AUEB Sports Analytics Workshop 2018

Egidi L., and Gabry J.. Bayesian hierarchical models for predicting individual performance in soccer (Invited talk). Athens University of Economics and Business, Athens, Greece, 26-27 November 2018.

AUEB PhD Seminar

Egidi L., Pappadà R., Pauli F. and Torelli N.. Pivotal methods for Bayesian mixture models and classical k -means algorithm initialization (Invited talk). Athens University of Economics and Business, Athens, Greece, 26-27 November 2018.

Data Science and Social Research Conference 2019

Egidi L., and Torelli N.. Comparing goal-based and result-based approach in modelling football outcomes (Invited talk). IULM University, Milano, Italy, 5 February 2019.

MathSport International 2019 Conference

Egidi L., Ntzoufras I.. Modelling volleyball data using a Bayesian approach (Talk). Athens University of Economics and Business, Athens, Greece, 1-3 July 2018.

Statistics 5

Egidi L., Pauli F. and Torelli N.. Avoiding prior-data conflict via mixture priors (Invited Talk). Aegina, Greece, 6-9 September 2019.

ASA Conference 2019

Egidi L., and Torelli N.. Comparing statistical models and machine learning algorithms in predicting football outcomes (Invited talk). Department of Economics and Management, University of Brescia, Brescia, Italy, 26 September 2019.

StaTalk 2019

Egidi L.. Weapons of mass prediction. Department of Business, Economics, Mathematics and Statistics, University of Trieste Trieste, Italy, 22nd November 2019.

AUEB Sports Analytics Workshop 2019

Egidi L., and Torelli N.. Comparing statistical models and machine learning algorithms in predicting football outcomes (Invited talk). Athens University of Economics and Business, Athens, Greece, 25-26 November 2019.

AUEB PhD Seminar

Egidi L.. Latent discrete parameters in Stan (Invited talk). Athens University of Economics and Business, Athens, Greece, 29 November 2019.

Advances in Statistical Modelling and Inference

Egidi L., Ntzoufras I. (2019) A Bayesian Quest for Finding a Unified Model for Predicting Volleyball Games. Department of Economics and Statistics, University of Udine, Udine, 8 January 2020.

PUBLICATIONS

Papers in refereed journals

- 1 Egidi, L., Pappadà, R., Pauli, F., and Torelli, N. (2018). Relabelling in Bayesian mixture models by pivotal units. *Statistics and Computing*, 28(4), 957-969.
- 2 Egidi L., Gabry J.S. (2018). Bayesian hierarchical models for predicting individual performance in soccer. *Journal of Quantitative Analysis of Sports*, 14(3), 143-157.
- 3 Castelpietra, G., Egidi, L., Caneva, M., Gambino, S., Feresin, T., Mariotto, A., Balestrieri, M., De Leo, D., Marzano, L. (2018). Suicide and suicides attempts in Italian prison epidemiological findings from the Triveneto area, 2010–2016. *International Journal of Law and Psychiatry*, 61, 6-12.
- 4 Egidi L., Pauli F. and Torelli N. (2018). Combining historical data and bookmakers' odds in modelling football scores. *Statistical Modelling*, 18(5-6), 1-24.
- 5 Egidi L., Torelli N. (2020) Comparing goal-based and result-based approaches in modelling football outcomes. *Social Indicators Research*, Online First, 1-13.
- 6 Egidi L., Ntzoufras I. (2020) A Bayesian Quest for Finding a Unified Model for Predicting Volleyball Games. *Journal of the Royal Statistical Society (Series C)*, 69(5), 1307-1336.
- 7 Rispoli, P., Giorgiutti, F., Egidi, L., Cappelletto, B. (2020). Impact of COVID-19 mitigation measures on patients with spine disease in Friuli Venezia Giulia. *Journal of Neurosurgical Sciences*, 64(4), 410-412.
- 8 Egidi, L., Pauli, F., Torelli, N. (2021) Avoiding prior-data conflict in regression models via mixture priors. *The Canadian Journal of Statistics (accepted)*, 10.1002/cjs.11637.

Papers in books

- 9 Egidi L., Pappadà R., Pauli F. and Torelli N. (2017). Maxima units search (MUS) algorithm: methodology and applications. *Studies in Theoretical and Applied Statistics*. Subtitle: SIS 2016, Salerno, Italy, June 8-10. ISBN: 978-3-319-73905-2, Springer Book.

Working papers

- 10 Fazia F., Egidi L., Ayoglu B., Beecham A., Bitti P.P., Ticca A., Nilsson P., Bernardinelli L., Berzuini C. (2019). Bayesian Mendelian Randomization for incomplete pedigree data, and the characterisation of Multiple Sclerosis proteins. *EUT Edizioni Università di Trieste*, ISBN: 978-88-5511-114-0

Conferences proceedings and abstracts

- 11 Egidi L., Pappadà R., Pauli F. and Torelli N.. Relabelling in Bayesian Mixture Models by Pivotal Units - Una procedura di relabelling in modelli mistura Bayesiani basata su unità pivotali. Conference Paper, *SIS2016 Proceedings*. ISBN 9788861970618. [48th Scientific Meeting of the Italian Statistical Society, Salerno, 8-10 June 2016].
- 12 Egidi L., Pappadà R., Pauli F. and Torelli N.. Relabelling in Bayesian Mixture Models by Pivotal Units. *ISBA Book of Abstract*, ISBN: 9-788884-679833 . [ISBA 2016 World Meeting, Cagliari, June 13-17, 2016].
- 13 Egidi L., Gabry J.S.. Bayesian hierarchical models for predicting individual performance in football (soccer). Conference Paper, *MathSport International 2017 Conference Proceedings*. ISBN 978-88-6938-058-7. [MathSport International 2017 Conference, Padova, 26-28 June 2017].
- 14 Egidi L., Pauli F. and Torelli N. A Hierarchical Bayesian Model for the Football Scores Using the Bookmakers Odds. *AUEB Sports Analytics Workshop 2017 Book of Abstracts*. [AUEB Sports Analytics Workshop 2017, Athens, 7-8 November 2017].
- 15 Egidi L., Pauli F. and Torelli N. (2018). Are the shots predictive for the football results? Conference Paper, Book of Short Papers, *SIS 2018*, ISBN: 9788891910233.
- 16 Egidi, L., Pappadà, R., Pauli, F., Torelli, N. (2018). K-means seeding via MUS algorithm. Conference Paper, Book of Short Papers, *SIS2018*, ISBN: 9788891910233.
- 17 Egidi, L., Pappadà, R., Pauli, F., Torelli, N. (2019). Pivotal seeding for K-means based on clustering ensembles. Conference Paper, Book of Short Papers, *SIS 2019*. ISBN: 9788891915108.
- 18 Egidi, L., Ntzoufras, I. (2019). Modelling volleyball data using a Bayesian approach. Conference Paper, *MathSport International 2019 Conference Proceedings*. ISBN: 978-618-5036-53-9.
- 19 Egidi, L., Pappadà, R., Pauli, F., Torelli, N. (2019). Consensus clustering via pivotal methods. Conference Paper, Book of Abstracts, *Cladag 2019*. ISBN: 978-88-8317-108-6
- 20 Egidi, L., Torelli, N. (2019). Comparing statistical models and machine learning algorithms in predicting football outcomes. Book of Short Papers, *ASA CONFERENCE 2019, Statistics for Health and Well-being*. ISBN: 978-88-5495-135-8.

Monography

- 21 Egidi L. (2018). Developments in Bayesian Hierarchical Models and Prior Specification with Application to Analysis of Soccer Data. *PhD Thesis*, Università degli Studi di Padova.

Under review

- 22 Egidi, L., Pauli, F., Torelli, N., Zaccarin, S. (2019). Clustering spatial networks through latent mixture models. Submitted to *Journal of the Royal Statistical Society Series A*
- 23 Egidi, L. (2021) Effective sample size for a mixture prior. Submitted to *Statistica Neerlandica*

R packages

24 Egidi L., Pappadà, R., Pauli F., Torelli N. (2019). *pivmet 0.3.0*. Available at: <https://cran.r-project.org/web/packages/pivmet>.

REVISION FOR
SCIENTIFIC
JOURNALS

Biometrical Journal
Statistics and Probability Letters
Journal of Operational Research Society
Journal of Quantitative Analysis in Sports
Statistical Methods and Applications
Kunstliche Intelligenz
Risks
Journal of Sports Analytics

CHAIR

SIS 2019, title of the session: Statistics in Sports
SIS 2020, title of the session: How deep is your plot? Young SIS and deep statistical learning

THESIS
SUPERVISOR OR
CO-SUPERVISOR

Student: Mitja Briscik. Thesis title: *Modelli statistici per la previsione dei risultati calcistici: un' applicazione alla Uefa Champion's League* (Bachelor Thesis in Statistica e Informatica per l'azienda, la finanza e l'assicurazione, University of Trieste, Academic year: 2018-2019).

Student: Giuseppe Sassano. Thesis Title: *Modelli statistici per la previsione di risultati nel calcio: i tiri in porta come veicolo di informazioni rilevanti* (Master Thesis in Scienze Statistiche, University of Padova, Academic year: 2018-2019).

Student: Anna Scussolin. Thesis Title: *Un' applicazione dei modelli gerarchici alla valutazione dell'assicurabilità nelle linee di credito* (Master Thesis in Scienze Statistiche e Attuariali, University of Trieste, Academic year: 2018-2019).

Student: Niccolò Rossi. Thesis title: *Expected Goals in Football: Development of Statistical Learning models with application to Matches Results* (Master thesis in Data Science and Scientific Computing, University of Trieste. Academic year: 2019-2020).

Student: Laura Balasso. Thesis title: *A Bayesian Approach For The Estimation Of Covid-19 Effective Reproduction Number: An Application To Italian Regions* (Master thesis in Data Science and Scientific Computing, University of Trieste. Academic year: 2019-2020).

Student: Lorenzo Fresco. Thesis title: *A statistical learning approach for cross contextual time-series forecasting* (Master thesis in Data Science and Scientific Computing, University of Trieste. Academic year: 2019-2020).

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September 8, 2021

