

Giuseppe Alfonzetti

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ACADEMIC POSITIONS

Postdoctoral researcher
Univeristy of Udine

2023 – ongoing

ARTICLES IN REFEREED JOURNALS

- **Alfonzetti, G.**, Bellio, R., Chen, Y., Moustaki, I., (2025). Pairwise stochastic approximation for confirmatory factor analysis of categorical data

British Journal of Mathematical and Statistical Psychology, 78(1), 22-43.
- **Alfonzetti, G.**, Bellio, R., Chen, Y., Moustaki, I., (2025). When Composite Likelihood meets Stochastic Approximation

Journal of the American Statistical Association, Forthcoming.

INVITED CONFERENCE TALKS

- Scalable Composite Likelihood Estimation of Categorical Data Models with Crossed Random Effects

CLADAG 2025, Naples, Italy. September, 2025.
- Fast M-Estimation for Exploratory Generalized Linear Latent Variable Models

Data Analytics Lab Workshop 2025, Ovronnaz, Switzerland. May, 2025.
- Pairwise stochastic approximation for confirmatory factor analysis of categorical data

CCDA2024, London, UK. October, 2024.
- A stochastic optimisation algorithm for pairwise likelihood estimation of factor models with ordinal data.

COMPSTAT2022 , Bologna, Italy. August, 2022.

INVITED SEMINARS

- When composite likelihood meets stochastic approximations

Ca' Foscari University of Venice, Italy. March, 2025.
- On the estimation of latent trait models.

Social Statistics meetings, London School of Economics, London, UK. February 17, 2022.

PUBLICATIONS IN MONOGRAPHS

- **Alfonzetti, G.**, Rossi, L., Zorzetto, D., Mealli, F. (2025). Model Free Estimation of Causal Effects of Different Stimuli on Neuron Activities. In *Advances in Neural Data Science* (Canale, A., Luati, A., Mazzuco, S., Piccarreta, R., Sartori, N., Secchi, P., editors). Springer.

PROCEEDINGS

- **Alfonzetti, G.**, Bellio, R., (2024). Scalable bootstrap inference via averaged Robbins-Monro approximations.

Proceedings of the Statistics and Data Science 2024 Conference.

- **Alfonzetti, G.**, Grassetti, L., Rizzi, L., (2023). Propensity towards master's degree: choices of northern students after bas?

Book of short papers of the 14th Scientific Meeting of the Classification and Data Analysis Group.

- **Alfonzetti, G.**, Bellio, R., Chen, Y., Moustaki, I., (2023). Efficient stochastic learning of graphical structures for large-scale mixed data surveys.

Proceedings of the 37th International Workshop on Statistical Modelling.

- **Alfonzetti, G.**, Bellio, R. (2022). Reliable generalized linear latent variable models estimation via simulated maximum likelihood.

Proceedings of the 36th International Workshop on Statistical Modelling.

- **Alfonzetti, G.**, Bellio, R. (2022). Some advances on pairwise likelihood estimation in ordinal data latent variable models.

Book of Short Papers SIS2022.

- **Alfonzetti, G.**, Rizzi, L., Grassetti, L., Gobbato, M. (2019). Observed expenditures vs estimated burden of health care: a comparative evaluation based on spatial analysis.

Book of Short Papers ASA2019.

CONTRIBUTED TALKS

- A {lavaan} Extension for fast pairwise likelihood estimation of factor models for categorical data

Psychoco 2025, Ghent, Belgium. February, 2025.

- Pairwise stochastic approximation for confirmatory factor analysis of categorical data

IMPS2024, Prague, Czech Republic. July, 2024.

- Scalable bootstrap inference via averaged Robbins-Monro approximations.

SDS2024, Palermo, Italy. April, 2024.

- Enhancing public decision making via large-scale graphical model

AQMAPPS2023, Milano, Italy, October, 2023.

- Propensity towards master's degree: choices of northern students after bas?
CLADAG2023, Salerno, Italy. September, 2023.
- Efficient stochastic learning of graphical structures for large-scale mixed data surveys.
IWSM2023, Dortmund, Germany. July, 2023.
- Some advances on pairwise likelihood estimation in ordinal data latent variable models.
SIS2022, Caserta, Italy. June, 2022.

POSTERS

- A stochastic optimization algorithm for pairwise likelihood estimation of factor models with ordinal data. **Alfonzetti, G.**, Bellio, R., Chen Y., Moustaki, I.
Statistical methods and models for complex data, Padua, Italy. September, 2022.
- Reliable generalized linear latent variable models estimation via simulated maximum likelihood. **Alfonzetti, G.**, Bellio, R.
IWSM, Trieste, Italy. July, 2022.

EDUCATION

Ph.D – Statistics

Univeristy of Padova

2019 – 2023

- Thesis topic: Stochastic estimation methods for latent variable models.
- Advisors: Ruggero Bellio, Irini Moustaki (Co-advisor) and Yunxiao Chen (Co-advisor).
- Focus on: Factor models; Composite likelihood; Stochastic optimisation

M.Sc. – Economics

Univeristy of Udine

2019 – 2023

- Thesis topic: Deepening Spatial Heterogeneity of Elderly Healthcare Burden Evolution.
- Advisor: Laura Rizzi.
- Double degree program with Karl-Franzens-Universität -Graz, Austria.

VISITING PERIODS

Department of Statistics of the London School of Economics. Visiting researcher under the supervision of Prof. Irini Moustaki and Dr. Yunxiao Chen. Jan – Apr 2022 | May 23

TEACHING ACTIVITY

Academic year 2024/2025

- **Laboratory of Statistics and Mathematics** (Teaching assistant, 12h)
Master degree in International marketing, management and organization – Univeristy of Udine.

• **Statistica di base**
Bachelor degree in economics – Univeristy of Udine.

(Teaching assistant, 12h)

ORGANIZATION OF SCIENTIFIC EVENTS

Co-organizer of “HackTheGene”, a genomics-themed hackathon hosted by the Department of Statistical Sciences of the University of Padova in September 2022.
Univeristy of Padova

INSTITUTIONAL ROLES

Served as student representative in the PhD faculty board 2019-2022.