



Gherardo Varando

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since **Assistant Professor**, *Universitat de València*, Department of Statistics and September Operational Research)

2024

2020 - 2024 **Postdoc**, *Universitat de València*, Image and Signal Processing Group (isp.uv.es)

Machine learning and causality to tackle earth system and climate questions.

2018 - 2020 **Postdoc**, *University of Copenhagen*, department of Mathematical Sciences, Copenhagen Causality Lab(CoCaLa)

2014 - 2018 **Phd student**, *Universidad Politecnica de Madrid*, dpt. Artificial Intelligence, Computational Intelligent Group (CIG)

Education

2014 – 2018 Phd in artificial intelligence, Universidad Politecnica de Madrid, dpt. Artificial Intelligence, with Honors (Summa Cum Laude)

2011 – 2014 Master's degree in mathematics, Università degli studi di Firenze, 110/110 con lode

2007 – 2011 **Bachelor's degree in mathematics**, Università degli studi di Firenze, 110/110 con lode

Teaching and Supervision

2018/2019 **Statistics for BioInformatics**, *University of Copenhagen*, Teaching (lectures 2019/2020 and exercise sessions) and students evaluation

2018/2019 **Projects in Statistics**, *University of Copenhagen*, Supervision of student 2019/2020 projects on image analysis and spatial statistics

2019 Trabajo fin de Master (final Master project), Universidad Internacional de Valencia (VIU), Supervision of student final projects on various artificial intelligence and machine learning topics

2018 Mátematicas para la Inteligencia Artificial (Math for AI), Universidad Internacional de Valencia (VIU), Course design and material preparation, online teaching and students evaluation

Grants — Awards — Competitions

- 12/2019 Causality 4 Climate NeurIPS Competition, With the Copenhagen Causality Lab team, winners of the overall competition and 18 out of 34 challenges
- 01/04- **AI*IA Incoming Mobility Grant 2016**, Travel grant for a research staying 30/06/2017 at the department of Mathematics, University of Genova hosted by prof. Eva Riccomagno
- 01/04- UPM Travel Grant, Travel grant for a research staying at the department of 30/06/2017 Mathematics, University of Genova hosted by prof. Eva Riccomagno
- 02/11/2015 **Doctoral Consortium, CAEPIA 2015**, Best thesis project ex-aequo, Albacete, Spain

Conferences and Workshops Presentations

- 23/05/2022 **EGU General Assemply 2022**, Learning ENSO-related Principal Modes of Vegetation via a Granger-Causal Variational Autoencoder, Vienna (Austria)
- 23/07/2021 ICML 2021 Workshop Tackling Climate Change with Machine Learning, Learning Granger Causal Feature Representations (poster), virtual
- 27/01/2020 Incontro di Statistica Matematica, Graphical continuous Lyapunov models, Sestri Levante (Italy)
- 13/09/2018 **9th International Conference on Probabilistic Graphical Models**, A partial orthogonalization method for simulating covariance and concentration graph matrices, BayesFusion best student paper award, Prague (Czech Republic)
- 27/07/2018 Ninth International Workshop on Simulation, IWS 2018, Algebraic views on classification problems, Barcelona (Spain)
- 18/09/2017 **Slow Monday in Algebraic Statistic**, The Algebra of Generative Classifiers, Genova (Italy)
- 21/06/2017 **First Italian Meeting on Probability and Mathematical Statistics**, Poster: Polynomial representations of Bayesian Networks Classifiers, Torino (Italy)
- 23/01/2017 One day workshop on Algebraic Statistic, Polynomial representations of Bayesian Networks Classifiers, Genova (Italy)
- 18/10/2014 Seventh European Workshop on Probabilistic Graphical Models, Expressive Power of Binary Relevance and Chain Classifiers Based on Bayesian Networks for Multi-Label Classification, Utrecht (NL)

Other Activities – Qualifications

Accreditation for Spanish Assistant Professor (Ayudante Doctor), *ANECA*, obtained in 2022

Accreditation for Catalan Assistant Professor (Lector), AQU Catalunya, obtained in 2023

Member of program committees, PGM2020, PGM2022, UAI2021 (top reviewer), UAI2022 (top reviewer), AISTATS2022, AISTATS2023, ICMLA2021, ICMLA2022, ICMLA2023

Journals Review activity, PLOS ONE, JAIR, Statistics, Entropy, IJAR, Applied Sciences

Introduction to University Pedagogy (3 ECTS), PhD School of SCIENCE, University of Copenhagen, May 2019

Languages

Italian Native

English Proficient TOEIC, listening and reading (2017): 985/990, writing (2018): 200/200,

speaking (2018): 140/200

Spanish Proficient (Instituto Cervantes DELE C1)

Greek Basic

Computer skills

Programming R, Java, JavaScript, Fortran, python

Software FIJI/ImageJ, RStudio, LaTeX, Git

Selected repository

- o stagedtrees: R package to fit stratified staged event trees
- o clggm: Continuous Lyapunov Gaussian Graphical Models
- o tidybench: TIme series DiscoverY BENCHmark
- o gmat: R package for simulating positive definite matrices
- o nodag: estimate the structure of a structural equation model (SEM) without imposing the acyclicity constraint

Links

- o Homepage
- o GitHub gherardovarando
- o dbl Varando:Gherardo
- o Google Scholar Varando, Gherardo
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