CARLO CAVICCHIA

PERSONAL DATA

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🌐 Institutional Page   ◇   Personal Page   ◇   Google Scholar   ◇   Research Gate   ◇   ORCiD

CURRENT POSITION

Erasmus Rotterdam University, Rotterdam   *May 2020 - Present*
Assistant Professor of Statistics
Econometric Institute, Erasmus School of Economics

EDUCATION

University of Rome La Sapienza, Rome   *November 2016 - February 2020*
Ph.D. *Methodological Statistics - Scuola di Scienze Statistiche*
Department of Statistical Sciences
Thesis title: *Hierarchical latent variable models for dimensionality reduction: an application on composite indicators*; Supervisor: Prof. Maurizio Vichi

University of Rome La Sapienza, Rome   *November 2013 - January 2016*
Master of Science Degree in Statistics and Decision Science   Final score: 110/110 cum laude

University of Rome La Sapienza, Rome   *November 2009 - July 2013*
Bachelor's Degree in Statistics   Final score: 105/110

RESEARCH AND TEACHING INTERESTS

Multivariate Statistics	Non-parametric Statistics	Data Science
Latent Variable Models	Composite Indicators	Unsupervised Classification

GRANTS

University of Rome La Sapienza, Rome   *August 2017*
Research Grant for Junior Researcher, Avvio alla ricerca

Stats under the stars[3], Florence   *June 2017*
Award in Italian Statistical Society (SIS) competition, Best report

RESEARCH EXPERIENCES

University of Rome UnitelmaSapienza, Rome   *May 2019 – April 2020*
Research fellowship
Department of Law and Economics
Supervisor: Prof. P. Sarnacchiaro

University of Rome La Sapienza, Rome   *March 2016 – November 2018*
Researcher on the project: *Development of a procedure to detect and manage outliers for big data*
Department of Statistical Sciences
Supervisor: Prof. M. Vichi and ENEA

University of Rome La Sapienza, Rome   *March 2016 – January 2017*
Researcher on the project: *Construction of a hierarchical non-negative and disjoint composite indicator for a set of quantitative variables*
Department of Statistical Sciences
Supervisor: Prof. M. Vichi

RESEARCH VISITS

Erasmus Rotterdam University, Rotterdam   *November 15 – December 17, 2019*
Econometric Institute, Erasmus School of Economics
Supervisor: Prof. P.J.F. Groenen

PUBLICATIONS

Cavicchia, C. and P. Sarnacchiaro: *A multi-group higher-order factor analysis for studying the gender-effect in Teacher Job Satisfaction.* In: *METRON* (2021). DOI: 10.1007/s40300-021-00204-x.

Cavicchia, C., P. Sarnacchiaro, and M. Vichi: *A composite indicator for the waste management in the EU via Hierarchical Disjoint Non-Negative Factor Analysis.* In: *Socio-Economic Planning Sciences* 73 (2021). DOI: 10.1016/j.seps.2020.100832.

Cavicchia, C. and M. Vichi: *Statistical Model-based Composite Indicators for tracking coherent policy conclusions.* In: *Social Indicators Research* (2020). DOI: 10.1007/s11205-020-02318-7.

Cavicchia, C., M. Vichi, and G. Zaccaria: "Exploring Hierarchical Concepts: Theoretical and Application Comparisons". In: *Advanced Studies in Behaviormetrics and Data Science: Essays in Honor of Akinori Okada.* Ed. by T. Imaizumi, A. Nakayama, and S. Yokoyama. Singapore: Springer Singapore, 2020, pp. 315–328. ISBN: 978-981-15-2700-5. DOI: 10.1007/978-981-15-2700-5_19.

Cavicchia, C., M. Vichi, and G. Zaccaria: *The ultrametric correlation matrix for modelling hierarchical latent concepts.* In: *Advances in Data Analysis and Classification* 14.4 (2020), pp. 837–853. DOI: 10.1007/s11634-020-00400-z.

Cavicchia, C., P. Sarnacchiaro, and M. Vichi: "A composite indicator via hierarchical disjoint factor analysis for measuring the Italian football teams' performances". In: *ASA Conference 2019. Statistics for Health and Well-being. Book of short papers.* 2019, pp. 65–68. https://iris.uniroma1.it/retrieve/handle/11573/1321345/1267423/Cavicchia_composite-indicator-football_2019.pdf.

Cavicchia, C., P. Sarnacchiaro, and M. Vichi: "Hierarchical Disjoint Non-Negative Factor Analysis: environment and waste management in the EU." In: *Statistical methods for service quality evaluation. Book of short papers of IES 2019.* 2019, pp. 154–157. https://iris.uniroma1.it/retrieve/handle/11573/1302687/1220976/Cavicchia_hierarchical-factor-waste_2019.pdf.

Cavicchia, C., M. Vichi, and G. Zaccaria: "A new hierarchical model-based composite indicator on climate change." In: *Statistical methods for service quality evaluation. Book of short papers of IES 2019.* 2019, pp. 346–349. https://iris.uniroma1.it/retrieve/handle/11573/1302650/1220871/Cavicchia_composite-indicator-climate_2019.pdf.

Cavicchia, C., M. Vichi, and G. Zaccaria: "Dimensionality reduction via hierarchical factorial structure." In: *CLADAG 2019. Book of Short Papers.* 2019, pp. 116–119. https://iris.uniroma1.it/retrieve/handle/11573/1341564/1311963/Cavicchia_reduction-hierarchical-factorial_2019_articolo.pdf.

Cavicchia, C., M. Vichi, and G. Zaccaria: "Hierarchical clustering and dimensionality reduction for big data." In: *Smart statistics for smart applications. Book of short paper SIS2019.* 2019, pp. 173–180. https://iris.uniroma1.it/retrieve/handle/11573/1292036/1186946/Cavicchia_Hierarchical-Clustering_2019.pdf.pdf.

INVITED PRESENTATIONS AND SEMINARS

EconJobMarket *December 2019*
Erasmus University Rotterdam - Econometric Institute
Invited Seminar

ASA 2019 Scientific Conference on Statistics for Healt and Well-Being *September 2019*
University of Brescia, Brescia
Invited Session

12nd Scientific Meeting of Classification and Data Analysis Group *September 2019*
Folcara Campus of the University of Cassino and Southern Lazio, Cassino
Invited Session

49th Scientific meeting of the Italian Statistical Society *June 2018*
University of Palermo, Palermo
Invited Session

Workshop: Selection and Synthesis of Indicators for
Sustainable Development Goals: Methodologies and Applications *October 2017*
University of Rome La Sapienza, Rome
Invited Session

TEACHING

Erasmus University Rotterdam, Rotterdam *2021 - Present*
Econometric Institute
Lecturer
Seminar in Business Analytics and Quantitative Marketing

Università degli studi Roma Tor Vergata, Rome *2021*
Department of Management and Law
Lecturer
Applied multivariate analysis with SAS

Erasmus University Rotterdam, Rotterdam *2020 - Present*
Econometric Institute
Lecturer
Seminar Data Science for Marketing Analytics

University of Rome UnitelmaSapienza, Rome *2020 - 2021*
Department of Law and Economics
Lecturer
R Lab - Statistics, *II level master: "Quantitative methods and models for decision support"*

University of Rome UnitelmaSapienza, Rome *2020 - 2021*
Department of Law and Economics
Lecturer
Statistical Methods for Composite Indicators Construction, *II level master: "Quantitative methods and models for decision support"*

University of Rome UnitelmaSapienza, Rome *2020 - 2021*
Department of Law and Economics
Lecturer
Statistical Methods for Socio-Economic Analysis, *II level master: "Quantitative methods and models for decision support"*

Libera Università Internazionale degli Studi Sociali, Rome *2020*
Department of Business and Management
Teaching assistant for Prof. M. Perone Pacifico
Statistics

Università degli studi Roma Tor Vergata, Rome *2020*
Department of Management and Law
Teaching assistant for Prof. S. Borra
SAS Lab - Business Statistics

University of Rome UnitelmaSapienza, Rome *2019 - 2020*
Department of Law and Economics
Subject Expert and Teaching Assistant ("Cultore della Materia")
Statistics

Università degli studi Roma Tor Vergata, Rome *2019 - 2020*
School of Economics
Teaching assistant for Dr. M. Ranalli
Statistics, *Master of Science in Development Economics and International Cooperation*

University of Rome UnitelmaSapienza, Rome *2019 - 2020*
Department of Law and Economics
Student Tutor
Statistics and maths

Università degli studi Roma Tor Vergata, Rome *2019*
School of Economics
Lecturer
Statistics, *Master of Science in European Economy and Business Law*

University of Rome La Sapienza, Rome *2018 - 2020*
Department of Medicine
Teaching assistant for Prof. M. Vichi
Statistics

Università degli studi Roma Tre, Rome *2017 - 2018*
Department of Political Sciences
Teaching assistant for Prof. F. Lagona and Dr. M. Ranalli
Statistics

University of Rome La Sapienza, Rome *2016 - 2020*
Department of Statistical Science
Teaching assistant for Prof. M. Vichi
Advances in Data Analysis and Statistical Modelling

University of Rome La Sapienza, Rome *2016 - 2020*
Department of Statistical Science
Teaching assistant for Prof. M. Vichi
Multivariate Statistics

ACADEMIC SERVICES

DSSV-ECDA 2021: "Data Science Statistics and Visualisation and European Conference on Data Analysis" *2021*
Local Organizing Committee Member

IES 2021: "Innovation and Society 5.0: Statistical and Economic Models and Techniques for Quality Assessment" *2021*
Scientific Programme Committee Member

Computational Statistics *2021 - Present*
Reviewer

y-SIS: The young group of the Italian Statistical Society *2021 - Present*
National Board Member

METRON *2020 - Present*
Reviewer

SN Business & Economics *2020 - Present*
Reviewer

DSSV 2020: "Data Science, Statistics and Visualisation" *2020*
Organizing Member
II level master: "Quantitative methods and models for decision support" *2020*
Admission Committee Member (*University of Rome UnitelmaSapienza*)
50th edition of the Scientific Meeting of the Italian Statistical Society *2020*
Session Organizer: *Factorial and dimensional reduction methods for the construction of indicators for evalutation*
Journal of Statistical Computation and Simulation *2019 - Present*
Reviewer
Advances in Data Analysis and Classification *2018 - Present*
Reviewer

TECHNICAL STRENGTHS

Languages and Software	MATLAB, R, LATEX, MySQL, SAS, Java
Certifications	SAS Certified Predictive Modeller Using SAS Enterprise Miner 13 (SAS Institute, 2016)

WORK EXPERIENCES

ARS Progetti S.P.A., Rome *October - December 2019*
Consultant as Lead Statistician
Project: *Survey in Zanzibar on community socio-economic conditions*
NGO Fondazione ACRA, Rome *July - October 2019*
Consultant as Supervisor
Project: *Survey in Zanzibar on environmental cleanliness, public service perception and tourism competitiveness*
NGO Fondazione ACRA, Zanzibar, Tanzania *June - August 2018*
Consultant as Lead Statistician
Project: *Survey within the framework of the "Consultancy Services to support community engagement and awareness within the Urban Municipal Council"*

LANGUAGES

Italian	Mother-tongue
English	Fluent

EXTRA-CURRICULAR

President and Co-Founder "ASD Valcanneto Futsal" - the futsal club of Valcanneto village (Cerveteri, 2018 - Present)

Attended the 1st International Summer School on Classification and Data Analysis at University of Bologna, Rimini Campus (Rimini, May 2017)

Attended a Erasmus semester at University College of Dublin (Dublin, January - May 2012)

In compliance with the GDPR and Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance to art. 7 of the above mentioned Decree.