

CARLO CAVICCHIA

PERSONAL DATA

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CURRENT POSITION

Assistant Professor of Statistics

May 2020 - Present

Econometric Institute, Erasmus School of Economics, Erasmus Rotterdam University, Rotterdam

EDUCATION

Dutch University Teaching Qualification UTQ-BKO

January 2022 - (expected) June 2022

Risbo, Erasmus University Rotterdam, Rotterdam

Ph.D. in Statistics

November 2016 - February 2020

Department of Statistical Sciences, University of Rome La Sapienza, Rome

Thesis title: *Hierarchical latent variable models for dimensionality reduction: an application on composite indicators*; Supervisor: Prof. M. Vichi

MSc Degree in Statistics and Decision Science

November 2013 - January 2016

University of Rome La Sapienza, Rome

110/110 with honors

BSc Degree in Statistics

November 2009 - July 2013

University of Rome La Sapienza, Rome

105/110

RESEARCH AND TEACHING INTERESTS

Hierarchical Models

Non-parametric Statistics

Data Science

Latent Variable Models

Composite Indicators

Unsupervised Classification

RESEARCH EXPERIENCES

Research visit

November 2019 – December 2019

Econometric Institute, Erasmus School of Economics, Erasmus Rotterdam University, Rotterdam

Supervisor: Prof. P.J.F. Groenen

Research fellowship

May 2019 – April 2020

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

Supervisor: Prof. P. Sarnacchiaro

Researcher on a project

March 2016 – November 2018

Department of Statistical Sciences, University of Rome La Sapienza, Rome

Title: *Development of a procedure to detect and manage outliers for big data*

Supervisor: Prof. M. Vichi and ENEA

Researcher on a project

March 2016 – January 2017

Department of Statistical Sciences, University of Rome La Sapienza, Rome

Title: *Construction of a hierarchical non-negative and disjoint composite indicator for a set of quantitative variables*

Supervisor: Prof. M. Vichi

AWARDS AND GRANTS

Research Grant for Junior Researchers

August 2017

University of Rome La Sapienza, Rome

Best report of Stats under the stars³

June 2017

Italian Statistical Society (SIS)

FEATURED PUBLICATIONS

Cavicchia, C., M. Vichi, and G. Zaccaria: *Gaussian Mixture Model with an extended ultrametric covariance structure*. In: *Advances in Data Analysis and Classification* (2022). DOI: [10.1007/s11634-021-00488-x](https://doi.org/10.1007/s11634-021-00488-x).

Cavicchia, C. and M. Vichi: *Second-order disjoint factor analysis*. In: *Psychometrika* 87.1 (2022), pp. 289–309. DOI: [10.1007/s11336-021-09799-6](https://doi.org/10.1007/s11336-021-09799-6).

Cavicchia, C. and P. Sarnacchiaro: *The effect of a new e-tivity on students' performance and satisfaction in an online course*. In: *Statistica Applicata - Italian Journal of Applied Statistics* 33.2 (2021), pp. 163–175. DOI: [10.26398/IJAS.0033-009](https://doi.org/10.26398/IJAS.0033-009).

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](https://doi.org/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), p. 100832. DOI: [10.1016/j.seps.2020.100832](https://doi.org/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* 156.2 (2021), pp. 449–479. DOI: [10.1007/s11205-020-02318-7](https://doi.org/10.1007/s11205-020-02318-7).

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](https://doi.org/10.1007/s11634-020-00400-z).

INVITED TALKS AND SEMINARS

IFCS 2022 - 17th Conference of the International Federation of Classification Societies
July 2022

Porto, Portugal

Invited Session

EcoSta 2022 - 5th International Conference on Econometrics and Statistics *June 2022*

Virtual conference

Invited Session

Seminar series “Introduction to Statistics” *February 2022*

Hospitality Management - Federico II University of Naples

Invited Seminar Series

ISI 2021 - 63rd International Statistical Institute World Statistics Congress “Statistics and Data Science for a Better World” *July 2021*

Virtual conference

Invited Session

EconJobMarket *December 2019*

Erasmus University Rotterdam - Econometric Institute, Rotterdam

Invited Seminar

ASA 2019 Scientific Conference on Statistics for Health 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

Lecturer*2022 - Present*

Econometric Institute, Erasmus University Rotterdam, Rotterdam

Seminar Case Studies in Business Analytics and Quantitative Marketing

Lecturer*2022 - Present*

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

Multivariate Statistics, *I level master: "Analysis and modelling of data and processes: methods and models"***Lecturer***2021*

Econometric Institute, Erasmus University Rotterdam, Rotterdam

Seminar in Business Analytics and Quantitative Marketing

Lecturer*2020 - Present*

Econometric Institute, Erasmus University Rotterdam, Rotterdam

Seminar Data Science for Marketing Analytics

Lecturer*2020 - 2021*

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

Statistical Methods for Composite Indicators Construction, *II level master: "Quantitative methods and models for decision support"***Lecturer***2020 - 2021*

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

R Lab - Statistics, *II level master: "Quantitative methods and models for decision support"***Teaching assistant***2020*

Department of Business and Management, LUISS, Rome

Statistics (Prof. M. Perone Pacifico)

Lecturer*2020 - 2022*

Department of Management and Law, Tor Vergata University of Rome, Rome

Applied multivariate analysis with SAS

Subject Expert and Teaching Assistant*2019 - Present*

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

Statistics

Teaching assistant*2019 - 2020*

School of Economics, Tor Vergata University of Rome, Rome

Statistics (Dr. M. Ranalli), *Master of Science in Development Economics and International Cooperation***Student Assistant***2019 - 2020*

Department of Law and Economics, University of Rome UnitelmaSapienza, Rome

Statistics and maths

Lecturer	2019
School of Economics, Tor Vergata University of Rome, Rome Statistics, <i>Master of Science in European Economy and Business Law</i>	
Teaching assistant	2018 - 2020
Department of Medicine, University of Rome La Sapienza, Rome Statistics (Prof. M. Vichi)	
Teaching assistant	2017 - 2018
Department of Political Sciences, Roma Tre University of Rome, Rome Statistics (Prof. F. Lagona and Dr. M. Ranalli)	
Teaching assistant	2016 - 2020
Department of Statistical Sciences, University of Rome La Sapienza, Rome Advances in Data Analysis and Statistical Modelling (Prof. M. Vichi)	
Teaching assistant	2016 - 2020
Department of Statistical Sciences, University of Rome La Sapienza, Rome Multivariate Statistics (Prof. M. Vichi)	

ACADEMIC AND EDITORIAL SERVICES

Member of the scientific programme committee of CLADAG 2023	2023
Organizer of an invited session of CMStatistics 2022	2022
Organizer of an invited session of ECDA 2022	2022
Co-editor of "Book of Short Papers of SIS 2022"	2022
National coordinator of y-SIS	2022
Member of the scientific programme committee of SIS 2022	2022
Member of the scientific programme committee of IES 2022	2022
Member of the national board of y-SIS	2021 - 2022
Member of the organizing committee of DSSV-ECDA 2021	2021
Member of the organizing committee of DSSV 2020	2020
Member of the admission committee of II level master: "Quantitative methods and models for decision support", University of Rome UnitelmaSapienza	2020
Organizer of an invited session of SIS 2020	2020
Reviewer for a number of scientific journals in Statistics:	2018 - Present
Journal of Data Science, Statistics and Visualisation; PLOS ONE; Annals of Operations Research; Computational Statistics; METRON; SN Business & Economics; Journal of Statistical Computation and Simulation; Advances in Data Analysis and Classification	

WORK EXPERIENCES

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

LANGUAGES

Italian	Native language
English	Speaking: C1 Writing: C2

EXTRA-CURRICULAR

- President and Co-Founder “ASD Valcanneto Futsal” (Cerveteri, 2018 - 2021)
- Attended the 1st International Summer School on Classification and Data Analysis (Rimini, 2017)
- Attended a Erasmus semester at University College of Dublin (Dublin, 2012)