

CARLO CAVICCHIA

PERSONAL DATA

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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 stars³, 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

FEATURED 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](https://doi.org/10.1007/s40300-021-00204-x).

Cavicchia, C. and P. Sarnacchiaro: *The effect of a new e-tivity on students' performance and satisfaction in an online course*. In: *Italian Journal of Applied Statistics* (2021).

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: *Second-order disjoint factor analysis*. In: *Psychometrika* (2021). DOI: [10.1007/s11336-021-09799-6](https://doi.org/10.1007/s11336-021-09799-6).

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

INVITED TALKS AND SEMINARS

ISI 2021 - 63rd International Statistical Institute World Statistics Congress "Statistics and Data Science for a Better World"

July 2021

Erasmus University Rotterdam - Econometric Institute

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

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

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

R Lab - Statistics, *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 - Present

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

ACADEMIC SERVICES

IES 2022: "Innovation and Society 5.0: Statistical and Economic Models and Techniques for Quality Assessment"	<i>2022</i>
Scientific Programme Committee Member	
DSSV-ECDA 2021: "Data Science Statistics and Visualisation and European Conference on Data Analysis"	<i>2021</i>
Local Organizing Committee Member	
y-SIS: The young group of the Italian Statistical Society	<i>2021 - Present</i>
National Board Member	
DSSV 2020: "Data Science, Statistics and Visualisation"	<i>2020</i>
Organizing Committee Member	
II level master: "Quantitative methods and models for decision support"	<i>2020</i>
Admission Committee Member (<i>University of Rome UnitelmaSapienza</i>)	
50th edition of the Scientific Meeting of the Italian Statistical Society	<i>2020</i>
Session Organizer: <i>Factorial and dimensional reduction methods for the construction of indicators for evaluation</i>	

EDITORIAL SERVICES

PLOS ONE	<i>2021 - Present</i>
Reviewer	
Annals of Operations Research	<i>2021 - Present</i>
Reviewer	
Computational Statistics	<i>2021 - Present</i>
Reviewer	
METRON	<i>2020 - Present</i>
Reviewer	
SN Business & Economics	<i>2020 - Present</i>
Reviewer	

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, L^AT_EX, 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

Native language

English

Speaking: C1 Writing: C2

EXTRA-CURRICULAR

President and Co-Founder "[ASD Valcanneto Futsal](#)" - the futsal club of Valcanneto village (Cerveteri, 2018 - 2021)

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.