

Curriculum Vitae

Carla Ferrara

Part I – General Information

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| Full Name | Carla Ferrara |
| Place of Birth | Rome |
| Citizenship | Italian |
| Spoken Languages | English, French |

Part II – Education

| Type | Year | Institution | Notes |
|--|-----------|--|--|
| Researcher | 2019 | National Institute of Health, ISS, Rome (Italy) | |
| Post-Doctoral position | 2018-2019 | Italian Institute for Environmental Protection and Research, ISPRA, Rome (Italy) | |
| Autumn course in official statistics | 2017 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | The course held by Walter Radermacher |
| Multivariate Statistical Analysis with SAS | 2017 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | The course held by E. D'Arcangelo and SAS Institute |
| Post-Doctoral position | 2016 | Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome (Italy) | Section Health Statistics |
| English Certificate | 2016 | British center recognized by MIUR | B2 Level |
| PhD | 2015 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | PhD in "Methodological Statistics". Thesis title: "Advances in Structural Equation Modelling" |
| Summer School | 2014 | Department of Economics and management, University of Pisa, Pisa (Italy) | "Poverty and social exclusion in three dimensions: multidimensional, longitudinal and small area estimation" |

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| "The best ways to learn from data" | 2013 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | The course held by Andrew Gelman |
| International Scientific Workshop | 2012 | Department of Statistical Sciences, University of Bologna, Bologna (Italy) | "Structural Equation Modeling and Latent Variable Models" |
| PhD scholarship winner | 2011 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | PhD student in "Methodological Statistics" |
| University graduation | 2011 | Statistics for Corporate Strategy - Faculty of Information Engineering, Informatics, and Statistics - Sapienza University of Rome, Rome (Italy) | GPA: 110/110 summa cum laude. Supervisor: Prof. M. Vichi. Thesis title: "Multivariate statistical methods for the measurement of the different dimensions of well-being" |
| University graduation | 2009 | Statistics for Business Management - Faculty of Statistics - Sapienza University of Rome, Rome (Italy) | Supervisor: Prof. M. Vichi. Thesis title: "Methodologies for the construction of composite indicators" |
| Introduction to SAS | 2009 | Department of Statistics, Probability and Applied Statistics, Sapienza University of Rome, Rome (Italy) | The course held by E. D'Arcangelo |
| Course on Statistical Software: Introduction to R | 2008 | Department of Statistics, Probability and Applied Statistics, Sapienza University of Rome, Rome (Italy) | The course held by L. Tardella |
| Statistical Analysis with SAS | 2002 | Department of Statistics, Probability and Applied Statistics, Sapienza University of Rome, Rome (Italy) | The course held by E. D'Arcangelo |

Part III – Teaching experience

| Year | Institution | Lecture/Course |
|-----------|--|---|
| 2018-2019 | Faculty of Medicine and Dentistry, Sapienza Università di Roma, Rome (Italy) | Lecturer at the Course "Nursing based on efficacy trials- Medical statistics" CFU 1 |
| 2018-2019 | Faculty of Medicine and Dentistry, Sapienza Università di Roma, Rome (Italy) | Lecturer at the Course "principles of dentistry- Medical statistics" CFU 1 |

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| 2018-2019 | Faculty of Medicine and Psychology, Sapienza Università di Roma, Rome (Italy) | Lecturer at the Course "Nursing based on efficacy trials- Medical statistics" CFU 2 |
| 2018-2019 | LUISS Guido Carli University, Rome (Italy) | Academic Tutor (Statistics) |
| 2018-2019 | LUISS Guido Carli University, Rome (Italy) | Academic Gym (Statistics) |
| 2015-2019 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Lecturer at the Advanced Training Course "Planning and analysis of clinical, observational and experimental trials" |
| 2016-2017 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Lecturer at the Master courses of "Management for coordination in nursing, midwifery, rehabilitation and technical health" Latina |
| 2015-2017 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Lecturer at the Master courses of "Management for coordination in nursing, midwifery, rehabilitation and technical health" Rome |
| 2016-2017 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Collaboration for the course of "Medical and Scientific Methodology" (prof. Vestri) |
| 2016-2017 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Collaboration for the course of "Medical statistics" (prof. Nofroni) |
| 2015-2017 | Faculty of Pharmacy and Medicine, Sapienza University of Rome, Rome (Italy) | Lecturer at the Specialization course of "Health Statistics and Biometrics" |
| 2012-2016 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | Collaboration for the course of "Advanced Statistical Methodology" (prof. Vichi) |
| 2011-2016 | Department of Statistical Sciences, Sapienza University of Rome, Rome (Italy) | Collaboration for the course of "Multivariate statistics" (prof. Vichi) |
| 2011-2017 | Faculty of Medicine and Dentistry, Sapienza Università di Roma, Rome (Italy) | Didactic Activity to the integrate course "Medical statistics" |

Part IV - Society memberships, Awards and Honors

| Year | Title |
|------------|---|
| Since 2012 | Member of SIS (Italian Statistical Society) |

Part V - Funding Information [grants as PI-principal investigators or I-investigator]

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| 2012 | PRIN 2010 | Title: Multivariate models for risk assessment (I) |
| 2014 | Research University Projects | Title: Models of analysis and classification of asymmetric proximity data in exploratory and confirmatory optics (I) |
| 2016 | Research University Projects | Title: "Caratterizzazione del profilo psico-sociologico degli studenti immatricolati ai corsi di laurea in medicina e chirurgia presso "Sapienza" Università di Roma" (I) |
| 2018 | Horizon 2020 | Title: Consumer Driven Production: Integrating Innovative Approaches for Competitive and Sustainable Performance across the Mediterranean Aquaculture Value Chain (I) |

Part VI – Other Informations

Contract of collaboration for the project "Statistiche per ogni Comune" of the Italian Statistic Society 2010-2013

Member of the Local Organizing Committee, 1st Conference of European Statistics Stakeholders, Rome (Italy), 24–25 November, 2014.

Visiting researcher at ESSEC Business School, Paris, France (3 month), 01/04/2013 - 30/06/2013.

Post-Doctoral position, Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome (Italy), 2015-2016.

Contract of collaboration (Co.Co.Co) Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome (Italy), 01/02/2017-31/01/2018.

Expert in the field of Multivariate Statistics.

Expert in the field of Medical-scientific Methodology.

Academic Tutor (Statistics) LUISS Guido Carli University, 2018-2019

Part VII – Attended National and International conferences

1. "Italian Statistics Day ", Rome (Italy), October, 2011.
2. "Making decisions: the role of statistics for knowledge and governance", Rome (Italy), 19th-20th April, 2012.

3. "46th Scientific Meeting on the Italian Statistical Society", Rome (Italy), 20-22 June, 2012.
4. "SIS 2013, Advances in Latent Variables – Methods, Models and Applications", Brescia (Italy), 19–21 June, 2013.
5. "PLS 2014 8th International Conference on Partial Least Squares and Related Methods", Paris (France), 26-28 May, 2014.
6. "SIS 2014, 47th Scientific Meeting of Italian Statistical Society", Cagliari (Italy), 11–13 June, 2014.
7. "IYSM 2014 - International Young Statistician Meeting Y-SIS", Cagliari (Italy), 13–14 June, 2014.
8. "1st Conference of European Statistics Stakeholders", Rome (Italy), 24–25 November, 2014.
9. "VIII National Conference – Orizzonti 2020 per la biostatistica e l'epidemiologia clinica: sfide e opportunità nell'era dei Big Data" "SISMEC 2015", Turin (Italy), 16-19 September, 2015.
10. "Workshop Selection and Synthesis of Indicators for Sustainable Development Goals: Methodologies and applications", Roma 13 October 2017.
11. "New perspectives and priorities for EU 2030 indicators", Rome (Italy), 8 June 2018
12. "49th Scientific Meeting of the Italian Statistical Society", Palermo (Italy), 20-22 June 2018
13. "13 National Statistical Conference", Rome (Italy), 4-6 July 2018

Part VIII – Oral presentation at National and International conferences

1. Making decisions: the role of statistics for knowledge and governance, Rome (Italy), 19th-20th April, 2012. **Speaker**
2. 46th Scientific Meeting on the Italian Statistical Society, Rome (Italy), 20-22 June, 2012. **Speaker**
3. "PLS 2014 8th International Conference on Partial Least Squares and Related Methods", Paris (France), 26-28 May, 2014. **Invited Speaker**
4. VIII National Conference – "Orizzonti 2020 per la biostatistica e l'epidemiologia clinica: sfide e opportunità nell'era dei Big Data" "SISMEC 2015", Turin (Italy), 16-19 September, 2015. **Poster**
5. M. C. Meroni, E. Visani, **C. Ferrara**, G. Nicolò "*Stili di funzionamento familiare ad esperienza critica: valutazione di una popolazione degente presso un Servizio Psichiatrico Diagnosi e Cura*" Società Italiana di Psicoterapia - SIPSIC Terzo Convegno La Psicoterapia in Evoluzione Disagi Emozionali e regolazione degli Affetti in Tempo di Crisi (October 2015, Rome). **Speaker**
6. M.C. Meroni, **C. Ferrara**, "*La violenza nei diversi servizi psichiatrici*", La gestione della violenza nei confronti degli operatori del dipartimento di salute mentale (June 2016, Colleferro). **Speaker**

Part IX– Research Interests

I am mainly interested in the development of new methodologies to analyze relationships between latent variables. In particular, I have recently worked on:

1. Structural Equation Modelling (SEM);
2. Simultaneous clustering and dimensionality reduction;
3. Construction of composite indicators;
4. Application on well-being;
5. Applied research.

Part X– Computer Skills

Operating Systems: All WINDOWS versions, Mac OS

Programming languages: Fortran, Visual basic, Prolog, Pascal, SAS, SQL.

Microsoft Applications: Excel, Word, Power Point, Access (in particular SQL language), LaTeX.

Browser WEB: Internet Explorer, MozillaFirefox, Google Chrome, Safari, Opera.

eMail management: Outlook Express, Microsoft Outlook, Apple Mail, Mozilla Thunderbird, Gmail

Statistic Programs: Matlab, R, SAS, SPSS, STATA

Software for multi-criteria decision-making processes: UTA+, ELECTRE

Part XI – Selected Publications on National and International conferences proceedings

1. **C. Ferrara**, F. Martella, M. Vichi “*Dimensions of well-being and their statistical measurements*”. Book of short papers, Making decisions: the role of statistics for knowledge and governance, (April 2012, Rome, Italy), p. 240-244.
2. **C. Ferrara**, F. Martella, M. Vichi “*Probabilistic Disjoint Principal Component Analysis*”. Book of short papers, “PLS 2014 8th International Conference on Partial Least Squares and Related Methods”, (May 2014 Paris, France), p. 85-86.
3. **C. Ferrara**, I. Nofroni, A. Vestri “*La valutazione della qualità della formazione attraverso i questionari opis on-line utilizzando la metodologia dei modelli ad equazioni strutturali*”, SISMEC (September 2015, Turin), p. 438-439 **Poster**.
4. S. Rao, W. Rao, **C. Ferrara** “*Studio preliminare sull’efficacia di un probiotico orale (Reuterin OS®) nel mantenimento di pazienti affetti da parodontite e perimplantite*”. XIX Congresso Nazionale SIdP (March 2016, Turin) **Poster**.
5. R. Delfini, V. Maiola, **C. Ferrara**, A. Landi, N. Marotta “*Cauda Equina Syndrome (CES) secondary to lumbar disc herniation: retrospective clinical study in 25 cases with evolving symptoms*” (July 2016, Spain).
6. M. C. Meroni, E. Visani, **C. Ferrara**, G. Nicolò “*Stili di funzionamento familiare ad esperienza critica: valutazione di una popolazione degente presso un Servizio Psichiatrico Diagnosi e Cura*” Società Italiana di Psicoterapia - SIPSIC Terzo Convegno La Psicoterapia in Evoluzione Disagi Emozionali e regolazione degli Affetti in Tempo di Crisi (October 2015, Rome).
7. E. Visani, **C. Ferrara** “*Studio sulle differenze fra famiglie normali e cliniche*”. Giornata di Studio su Ricerca e Psicoterapia Sistemico-Relazionale IIPR Sede di Roma La famiglia valutata Aspetti clinici della ricerca in terapia familiare (March 2016, John Cabot University - Rome).
8. M.C. Meroni, **C. Ferrara**, “*La violenza nei diversi servizi psichiatrici*”, La gestione della violenza nei confronti degli operatori del dipartimento di salute mentale (June 2016, Colleferro).
9. M.C. Meroni, E. Visani, **C. Ferrara**, G. Niccolò “*La risposta delle famiglie al ricovero in psichiatria*” Convegno di Studio IIPR - SIPRES 2016 - La matrice sociale della psicoterapia: orientamenti e pratiche sistemico-relazionali” (June 2016, Campo Felice di Roccella).
10. A. Prelaj, S. E. Rebuzzi, **C. Ferrara** “*Nivolumab in metastatic lung adenocarcinoma: the importance of patient selection in real life*”. ESMO (October 2016, Copenhagen).
11. A. Prelaj, S. E. Rebuzzi, M. Salvati, A. d'Elia, M. Antonelli, **C. Ferrara**, S. Tomao, V. Bianco “*Non-conventional fotemustine schedule as second-line treatment in recurrent malignant glioma*”. BMC Cancer (BCAN-D-16-00710).

12. G. Del Bene, A. Prelaj, JR. Berrios, LD. Filippis, A. Emiliani, A. Galletti, **C. Ferrara**, F. Longo “*94P: First-line treatment with cisplatin plus etoposide for small cell lung cancer and large cell neuroendocrine carcinoma: Our center experience*”. J Thorac Oncol. 2016 Apr;11(4 Suppl): S97. doi: 10.1016/S1556-0864(16)30207-6. Epub 2016 Apr 15.
13. A. Prelaj, S. E. Rebuzzi, M. Salvati, C. Fusto, C. Pozzi, **C. Ferrara**, L. Palombi, S. Tomao, V. Bianco “*A retrospective analysis to evaluate the efficacy and the safety of Bevacizumab in the treatment of recurrent malignant gliomas*”. Journal of Translational Medicine on 3 Oct 2016 (JTRM-D-16-00541).
14. A. Prelaj, S. E. Rebuzzi, M. Salvati, C. Pozzi, **C. Ferrara**, S. Tomao, V. Bianco “*A retrospective analysis to evaluate the off-label use of Bevacizumab in recurrent malignant gliomas*”. Congresso nazionale AIOM (October 2016) Abstract nr. S47 Published on Annals of Oncology Vol 27 Supp 4 2016 **Poster**. DOI: <https://doi.org/10.1093/annonc/mdw345.47>
15. G. Del Bene, A. Prelaj, J.R. Girón Berríos, L. De Filippis, A. Emiliani, A. Galletti, **C. Ferrara**, F. Longo “*First-Line Treatment with Cisplatin plus Etoposide for Small Cell Lung Cancer and Large Cell Neuroendocrine Carcinoma: our center experience*” **Poster**.
16. A. Prelaj, S. E. Rebuzzi, G. Del Bene, J.R. Girón Berríos, A. Emiliani, L. De Filippis, A. A. Prete, S. Pecorari, G. Manna, **C. Ferrara**, D. Rossini, F. Longo “*Evaluation of the efficacy of cisplatin-etoposide and the role of thoracic radiotherapy and prophylactic cranial irradiation in Large Cell Neuroendocrine Carcinoma*” European CanCer Organisation (ECCO2017) (January 2017, Amsterdam) **Poster**.
17. A. Prelaj, S. E. Rebuzzi, C. Pozzi, V. Frantellizzi, G. A. Follacchio, **C. Ferrara**, S. Tomao, G. De Vincentis, V. Bianco “*Radium 223 dichloride: safety and pain relief in Real Life. A Retrospective analysis of a single center experience*” NCCN 22nd Annual Conference: Improving the Quality, Effectiveness, and Efficiency of Cancer Care. (March 2017, Rosen Shingle Creek (Orlando, Florida)) [EMID:99cfef624e71c038] **Poster**.
18. F. Montagnani, M. Gabriele, **C. Ferrara**, A.R. Marucci, W. De Caro, J. Sansoni “*Diabetes and Depression: a Non-Accidental Multidimensional Combination. A Mixed-Method Observational Case-Control Study*” 13th International Family Nursing Conference, “Improving The Art and Science of Family Nursing: Transforming Health for Families” (June 2017, Pamplona (Spain)).
19. A. Prelaj, S. E. Rebuzzi, J. R. Giròn Berríos, S. Pecorari, C. Fusto, C. Ferrara, M. Salvati, S. Tomao, V. Bianco “*Concomitant versus sequential Fotemustine and Bevacizumab in recurrent malignant gliomas: treatment response and survival outcomes in a retrospective analysis*” Annals of Oncology, Volume 28, Issue suppl_6, (October 2017) doi.org/10.1093/annonc/mdx431.007

Part XII – Selected Publications on National and International Journals

1. **C. Ferrara**, F. Martella, M. Vichi "*Dimensions of well-being and their statistical measurements*". Book of short papers, 46th Scientific Meeting on the Italian Statistical Society, 2012. ISBN: 978-88-6129-882-8, p. 1-4.
2. **C. Ferrara**, F. Martella, M. Vichi "*Dimensions of well-being and their statistical measurements*". Springer Book: Studies in Theoretical and Applied Statistics, 2016. ISBN: 978-3-319-27272-6, p. 85-99.
3. **C. Ferrara** "*Advances in Structural Equation Modelling*" PhD thesis - School of Statistical Science in Methodological Statistics, 2015.
4. **C. Ferrara**, I. Nofroni, A. Vestri "*Come valutano gli studenti la qualità della formazione della Sapienza?*". MEDICINA E CHIRURGIA - Journal of Italian Medical Education - Quaderni delle Conferenze Permanenti delle Facoltà e Scuole di Medicina, 2016. Journal of Italian Medical Education n. 75, 2017 ISSN 2279-7068
5. J. Pepe, C. Cipriani, F. P. Cantatore, A. Fabbri, E. Pola, V. Vinicola, O. Raimo, F. Biamonte, R. Pascone, **C. Ferrara**, S. Minisola "*The effect of parathyroid hormone (1-84) treatment on serum bone morphogenetic protein 4 and vascular endothelial growth factor in postmenopausal women with established osteoporosis*". Journal of Endocrinological Investigation, 2017. DOI: 10.1007/s40618-017-0636-8
6. D. Concolino, I. Mascaro, M. T. Moricca, G. Bonapace, K. Matalon, J. Trapasso, G. Radhakrishnan, **C. Ferrara**, R. Matalon, P. Strisciuglio "*Long-Term Treatment of Phenylketonuria With a New Medical Food Containing Large Neutral Amino Acids*". European Journal of Clinical Nutrition (2017) 71, p. 51–55; doi: 10.1038/ejcn.2016.166
7. E. Visani, C. Loredi, S. Di Nuovo, R. Meninchichi, F. Seravelli, C. Agostino, **C. Ferrara** "Differences between normal and clinical families. Studies with FACES IV" http://www.buildingrelationships.com/facesiv_studies/faces4_italy_clinical.pdf
8. A. Prelaj, S. E. Rebuzzi, G. Del Bene, J. R. Giròn Berrìos, A. Emiliani, L. De Filippis, A. A. Prete, S. Pecorari, G. Manna, **C. Ferrara**, D. Rossini, F. Longo "*Evaluation of the efficacy of cisplatin-etoposide and the role of thoracic radiotherapy and prophylactic cranial irradiation in Large Cell Neuroendocrine Carcinoma*" ERJ Open Research, 2017 doi: 10.1183/23120541.00128-2016
9. A. Prelaj, S. E. Rebuzzi, G. Del Bene, J. R. Giròn Berrìos, A. Emiliani, L. De Filippis, A. A. Prete, S. Pecorari, G. Manna, **C. Ferrara**, D. Rossini, F. Longo "*Evaluation of the efficacy of cisplatin-etoposide, the role of thoracic radiotherapy and prophylactic cranial irradiation as first-line treatment in Large Cell Neuroendocrine Carcinoma compared to Small Cell Lung Cancer*" Journal of Thoracic Oncology (JTO-S-16-01661) (submitted).
10. A. Prelaj, S. E. Rebuzzi, M. Salvati, A. d'Elia, M. Antonelli, **C. Ferrara**, S. Tomao, V. Bianco "*Non-conventional fotemustine schedule as second-line treatment in recurrent malignant glioma: a single center experience*". BMC Cancer (BCAN-D-16-00710). (submitted).
11. A. Prelaj, S. E. Rebuzzi, M. Salvati, C. Fusto, C. Pozzi, L. Palombi, **C. Ferrara**, S. Tomao, V. Bianco "*Retrospective analysis to evaluate the efficacy and the safety of Bevacizumab in the treatment of recurrent malignant gliomas*". Journal of Translational Medicine, 2018 doi: 10.1186/s41231-018-0023-2
12. **C. Ferrara**, F. Martella and M. Vichi "*Probabilistic Disjoint Principal Component Analysis*". Multivariate Behavioral Research, 2018 DOI: 10.1080/00273171.2018.1485006

13. A. Prelaj, S. E. Rebuzzi, C. Pozzi, V. Frantellizzi, G. A. Follacchio, **C. Ferrara**, S. Tomao, G. De Vincentis, V. Bianco *"Radium-223 in Patients with metastatic castration-resistant Prostate Cancer: Efficacy and Safety in Real Life Experience"*. Oncology Letters, 2018 DOI: 10.3892/ol.2018.9785
14. A. Prelaj, S. E. Rebuzzi, M. Salvati, A. d'Elia, F. Buttarelli, **C. Ferrara**, S Tomao, V. Bianco *"Non-conventional fotemustine schedule as second-line treatment in recurrent malignant glioma: survival across disease and treatment subgroup analysis and review of the literature"*. Clinical Neurology and Neurosurgery (revision)
15. A. Prelaj, S. E. Rebuzzi, M. Grassi, J. R. Giròn Berríos, S. Pecorari, C. Fusto, **C. Ferrara**, M. Salvati, V. Stati, S. Tomao, V. Bianco *"Multimodal treatment for local recurrent malignant gliomas: resurgery and/or reirradiation followed by chemotherapy"*. Molecular and Clinical Oncology, 2018 doi.org/10.3892/mco.2018.1745
16. I. Voza, F. Capasso, F. Calcagnile, A. Anelli, D. Corridore, C. Ferrara, L. Ottolenghi *"School-age dental screening: oral health and eating habits"* La Clinica Terapeutica, 1(170), 2019 doi: 10.7417/CT.2019.2105

Rome, 20/10/2019

Carla Ferrara



I authorize the use of my personal data pursuant to Legislative Decree 30 June 2003 n. 196 and D.P.R. n. 445/2000