

Paola Cerchiello

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ACTUAL POSITION

Associate Professor of Statistics

University of Pavia, Italy
Nov. 2019– Present

PREVIOUS POSITION

Senior researcher (RTD-B) of Statistics

University of Pavia, Italy
Dec. 2016– Nov.2019

Junior researcher (RTD-A) of Economic Statistics

University of Pavia, Italy
Oct. 2013 – Nov 2016

Junior researcher of Statistics

University of Pavia, Italy
Jan. 2008 – Dec. 2012

Post-doc of Statistics

University of Pavia, Italy
Jan. 2005 – Dec. 2007

EDUCATION

National Habilitation

Full Professor in Statistics (SEC/S-01)

Sept. 2019

National Habilitation

Associate Professor in Economic Statistics (SEC/S-03)

Mar. 2018

National Habilitation

Associate Professor in Statistics (SEC/S-03)

Mar. 2017

Ph.D. in Statistics

Università Milano-Bicocca, Italy
Jan. 2006

Degree from High University Institute of Pavia

IUSS, Pavia, Italy
Oct. 2002

BS in Economics

University of Pavia, Pavia, Italy
Jun. 2002

RESEARCH INTERESTS

She mainly focuses on methodological statistics and data analysis: she is currently working on text data models, systemic risk, financial technologies (fintech), big data analysis, ordinal variables, spatio-temporal models. She collaborates with the Bank of Italy on a Big Data analysis project and she was a member of ‘Big Data Group’ at Deutsche Bundesbank, Frankfurt, Germany.

She is member of the board of ‘Statistics and Data Science’ group of the Italian Statistics Association. She is UCL Centre for Blockchain Technology associate, which is the nucleus for DLT and Blockchain research and engagement across eight different departments at UCL and for its Research and Industry Associate network.

She is Associated researcher of RiskLab (<http://risklab.fi/>), RiskLab Finland is a research group at Arcada and a research laboratory of Infolytika Ventures, with the objective to study and develop the fields of risk analysis through machine learning and visual analytics. She is advisor of Initial Coin Offering of Blufolio AG, Switzerland.

She has been appointed as Expert and Project Evaluator from the Fund for Scientific Research-FNRS (F.R.S.-FNRS), a funding agency located in Brussels in Belgium.

She serves as referee for several international journals: Scientometrics, Expert Systems with Applications, Statistical Analysis and Data Mining, Neurocomputing, European Journal Of Operation Research, Small Business Economics Journal, WIREs Data Mining and Knowledge Discovery, Information Processing and Management, Social Network Analysis and Mining, Public Management Review, The Journal of Operational

Risk, Communication and Statistics, the Journal of Big data, British Journal of Mathematics & Computer Science, Journal of Classification, Statistical Methods and Applications.
She is member of the board of the Italian journal ‘Statistica e Società’.

PUBLICATIONS

Papers under Review

- (2021) A. Celani, P. Cerchiello, P. Pagnottoni: COVID-19, Macroeconomic Dynamics and Fear in Europe: a Net-work Global VAR Approach. Technical Report, Under Review.
- (2021) A. Agosto, P. Cerchiello, P. Pagnottoni: Sentiment, Google Queries and Explosivity in the CryptocurrencyMarket Technical Report, Under Review, Revise and Resubmit.
- (2021) A. Bitetto, P. Cerchiello, S. Filomeni, A. Tanda, B. Tarantino: Machine Learning and Credit Risk: Empirical Evidence from SMEs. Technical Report, Under Review.
- (2021) A. Bitetto, P. Cerchiello. C. Mertzanis:A data-driven approach to measuring epidemiological susceptibility risk around the world. Technical Report, Under review, Revise and Resubmit.
- (2020) A. Bitetto, P. Cerchiello. C. Mertzanis: A data-driven approach to build Financial Complexity index. Technical Report, Under review.
- (2021) D.F. Ahelegbey, P. Cerchiello, R. Scaramozzino: Financial Impact of Covid-19 Pandemic through graphical models. Technical report, Under Review, Revise and Resubmit.
- (2021) P. Cerchiello, A.M. Toma,: ICO’s identity document: can we rely on white papers. Technical Report, Under Review, Revise and Resubmit.
- (2020) P. Cerchiello, S. Filomeni, A. Tanda, A.M. Toma: Lost in Translation, soft information, sentiment and lending decisions. Technical Report.
- (2021) G. Bruno, P. Cerchiello, J. Marcucci, G. Nicola: Sentiment analysis of tweets in Italian: is it related to stock market variables? Technical report, Under Review.

Published Papers

- (2021) P., Previtali, P. Cerchiello: Organizational Determinants of Whistleblowing. A Study of Italian Municipalities. Public Organization Review (2021). <https://doi.org/10.1007/s11115-021-00554-0>
- (2021) R. Scaramozzino, P. Cerchiello, T. Aste: Information theoretic causality detection between financial and sentiment data. In *Entropy* 2021, 23(5), 621; <https://doi.org/10.3390/e23050621>
- (2020) P. Cerchiello, G. Nicola, T. Aste: Exploiting information network model based for assessing financial systemic risk, In *Entropy*, vol. 22 (11), DOI:10.3390/e22111331
- (2020) P. Previtali, P. Cerchiello: Corporate governance and the responsiveness of organisations to a change in accreditation standards, In *Quality in Higher Education*, <https://doi.org/10.1080/13538322.2020.1833417>.
- (2020) P. Cerchiello, R. Scaramozzino: On the Improvement of Default Forecast Through Textual Analysis In *Front. Artif. Intell.*, 07 April 2020 — <https://doi.org/10.3389/frai.2020.00016>
- (2020) P. Cerchiello, A.M. Toma: Initial Coin Offerings: risk or opportunity? In *Front. Artif. Intell.*, 16 April 2020 — <https://doi.org/10.3389/frai.2020.00018>
- (2019) P. Previtali, P. Cerchiello: Patterns Of Compliance with Soft Regulation in Italian Listed Companies. *International Journal of Disclosure and Governance*, vol. 16, ISSN: 1741-3591, doi: 10.1057/s41310-019-00055-z.
- (2019) P. Cerchiello, P. Tasca, A.M. Toma: ICO success drivers: a statistical analysis. *The Journal of Alternative Investments* Spring 2019, 21 (4) 13-25; DOI:<https://doi.org/10.3905/jai.2019.21.4.013>.
- (2018) P. Previtali, P. Cerchiello: The Prevention of Corruption as an Unavoidable Way to Ensure Healthcare System Sustainability, *Sustainability* 2018, 10(9), 3071; <https://doi.org/10.3390/su10093071>.
- (2018) P. Cerchiello, G. Nicola: Assessing news contagion in finance. In *Econometrics* 2018, 6(1), 5; <https://doi.org/10.3390/econometrics6010005>.
- (2018) Magliacani, M., Madeo, E., Cerchiello, P. (2018). From ‘listener’to ‘speaker’museum visitors: guest book as a means of dialogue. *Museum Management and Curatorship*, 33(5), 467-483.
- (2017) P. Previtali, P. Cerchiello: The determinants of whistleblowing in public administrations: an analysis conducted in Italian health organizations, universities and municipalities <https://doi.org/10.1080/14719037.2017.1417468>, In *Public Management Review*.

- (2017) P.Cerchiello, P. Giudici, G. Nicola: Twitter data models of bank risk contagion, in *Neurocomputing* <https://doi.org/10.1016/j.neucom.2016.10.101>, Volume 264, 15 November 2017, Pages 50-56.
- (2016) P. Previtali, P. Cerchiello: Board effectiveness and governance innovation. A new application of a compliance system, forthcoming in *Corporate Governance*.
- (2016) P.Cerchiello, P.Giudici: A Bayesian h index: how to measure research impact, in *Statistical Analysis and Data Mining*, 10.1002/sam.11326, Volume 9, Issue 6 December 2016 Pages 388–396.
- (2016) P.Cerchiello, P.Giudici: Categorical network models for systemic risk measurement, *Quality & Quantity*, 1-17, 10.1007/s11135-016-0354-x.
- (2015) P.Cerchiello, P.Giudici: Conditional graphical models for systemic risk estimation, in *Expert Systems with applications*, Volume 43, 2016, pp.165174, doi:10.1016/j.eswa.2015.08.047.
- (2015) P.Cerchiello, P. Giudici: How to measure the quality of financial tweets, in *Quality & Quantity* pp 1-19, DOI 10.1007/s11135-015-0229-6.
- (2015) P.Cerchiello, P.Giudici: Big data analysis for financial risk management, in *Journal of Big Data*, Springer.
- (2014) P.Cerchiello, P.Giudici: Bayesian Credit Ratings, in *Communication in Statistics-Theory and Methods*, Vol. 43, Issue 4, 867-878.
- (2014) P.Cerchiello, P. Giudici: On a statistical h index, in *Scientometrics*, 99 (2), 299- 312.
- (2012) P.Cerchiello, P. Giudici: An integrated statistical model to measure academic teaching quality, in *Open Journal of Statistics*, Vol. 02, N. 5, DOI. 10.4236/ojs.2012.25063.
- (2012) P.Cerchiello, P. Giudici: Dirichlet compound Multinomials statistical models, in *Applied Mathematics*, Vol.3 No.12, pp. 2089-2097, DOI: 10.4236/am.2012.312A288.
- (2012) P.Cerchiello, P. Giudici: Non parametric statistical models for on-line text classification, in *Advances in Data Analysis and Classification*. DOI 10.1007/s11634-012-0122-2.
- (2012) P.Cerchiello, P. Giudici: Fuzzy methods for variable selection in operational risk management, in *Journal of Operational Risk*, Vol. 7, No. 4, pp-1-17.
- (2012) P.Cerchiello, P. Giudici: On the distribution of functionals of discrete ordinal variables, in *Statistics and Probability Letters*, 82 (2012) 2044–2049.
- (2012) P.Cerchiello, P. Giudici, E. Rocca: Modelli di rating: come integrare variabili quantitative con conoscenze qualitative, in *Bancaria*, n.11, December 2012.
- (2012) P. Cerchiello: Modelli di rating per la customer satisfaction, in *Statistica & Società*, Anno 1, Numero 2, 47-48.
- (2012) P.Cerchiello, P. Giudici: Non parametric models for credit rating assessment, in *Quaderni di Statistica*, Vol. 14, pp. 69-72.
- (2011) P. Cerchiello: Statistical models to measure corporate reputation, in *Journal of Applied Quantitative Methods*, Volume 6, No 4, 58-71.
- (2011) B. Hagen, A. Zucchella, P. Cerchiello, N. De Giovanni: International strategy and performance: Clustering strategic types of SMEs, in *International Business Review*, Vol. 21(3), 369–382, doi:10.1016/j.ibusrev.2011.04.002.
- (2010) P.Cerchiello, E. Dequarti, P.Giudici, C.Magni: Scorecard models to evaluate perceived quality of academic teaching, in *Statistica & Applicazioni*, 2, 145-156.
- (2010) P. Cerchiello, P. Argentero, P. Giudici: Models for questionnaires data in injury risk management, in *Advances and Applications in Statistics*, Vol. 10. Issue 1, pag 77-100.
- (2008) P. Cerchiello, S. Ganassali, A. Zucchella et al.: How perceived image of a sponsorship event influences on the brand perceptions: an international research of the america'scup and Louis Vuitton, in *International Journal of Management Cases*, Issue 10.3, pag 261-282.
- (2007) E. Bonafede, P. Cerchiello, P. Giudici: Statistical models for Business Continuity Management, in *Journal of operational risk management*, vol. 2 n° 4, pag 79-96.
- (2010) C. Ge Rondi, P. Cerchiello: Territori lenti: essere o malessere?, in *Processi di globalizzazione ed equilibri demografici*, Quaderni n° 39, pag 159-169, Cacucci Editore.
- (2008) P. Cerchiello, S. Ganassali, A. Zucchella et al: I giovani e i problemi di acquisto: un'analisi comparativa europea, in *Micro e Macro Marketing Journal*, Il Mulino, pag 71-89.

Books and chapters in books:

- (2021) P. Cerchiello: Text Analysis . In *Statistical Models for Data Analysis* (P. Giudici, S. Ingrassia, M. Vichi), Springer-Verlag.

- (2013) E. Lorenzini, P. Cerchiello: Measuring the success factors of a web-site: statistical methods and an application to a “web district”. In *Statistical Models for Data Analysis* (P. Giudici, S. Ingrassia, M. Vichi), Springer-Verlag.
- (2012) P. Cerchiello: Semantic based DCM models for text classification. In *Advanced Statistical Methods for the Analysis of Large Data-Sets* (A. Di Ciaccio, M. Coli, J. M. Angulo Ibanez Eds.), Springer, pp. 375-384.
- (2010) P. Cerchiello, E. C. Bonafede: A semantic based Dirichlet Compound Multinomial model, in *New Perspectives in Statistical Modeling and Data Analysis* (S. Ingrassia, R. Rocci, M. Vichi, Eds.), Springer, 525-534.
- (2010) P. Cerchiello, E. C. Bonafede: A study on text modelling via dirichlet compound multinomial, in *Classification and Multivariate Analysis for Complex Data Structures* (B. Fischet, D. Piccolo, R. Verde, M. Vichi, Eds), Springer, 115-123 .
- (2010) P. Cerchiello, N. De Giovanni, P. Giudici, A. Zucchella: La valorizzazione dei sistemi culturali locali. Una applicazione delle metodologie di marketing territoriale e di analisi statistica nel progetto ‘Antica Pieve di Mazzo’, in *Integrare e valorizzare il patrimonio culturale*, Pavia, pp. 15-34, Pavia University Press.
- (2010) C. Altobianchi, P. Cerchiello, P. Giudici: La partecipazione culturale in Lombardia: un’analisi statistica, in *Integrare e valorizzare il patrimonio culturale*, Pavia, pp. 181-196, Pavia University Press.
- (2009) P. Cerchiello, P. Giudici., M.K. Pelosi, T.K. Sandifer: *Introduzione alla Statistica Nuova Edizione*, McGraw-Hill.
- (2009) P. Cerchiello, E. C. Bonafede: A Proposal to Fuzzify Categorical Variables in Operational Risk Management, in ‘in “Studies in Classification, Data Analysis, and Knowledge Organization”, 4, 129-135.
- (2008) P. Cerchiello, M. Iannario, D. Piccolo: Assessing risk perception by means of ordinal models, In ‘Mathematical and Statistical Methods for Actuarial Sciences and Finance’, Corazza, Marco, Claudio, Pizzi (Eds.), Springer.
- (2008) *Statistica. Metodologie delle scienze sociali ed economiche*, McGraw-Hill (3 capitoli).
- (2008) P. Cerchiello: Data Mining for author text identification. In “Enciclopedia of Data Warehousing and Mining”, J. Wang editor, Idea Group Publishing.
- (2008) P. Cerchiello, S. Figini, P. Giudici: Applying data mining methods to business and industry, in *European Network for Business and Industrial Statistics*, editor Shirley Coleman, Wiley, pp. 163-184.
- (2005) P. Cerchiello, P. Giudici: Web usage mining through associative models. In “Enciclopedia of Data Warehousing and Mining”, J. Wang editor, Idea Group Publishing.
- (2005) P. Cerchiello, P. Giudici: Sequence rules models for web usage mining. In *Human Machine Perception communication, interaction, and integration*, (a cura di Sergio Vitulano et al.) World Scientific

RESEARCH PROJECTS

xAIM

European Project, Co-Principal Investigator

May 2021 – Apr. 2024

Periscope

European Project, Cluster and WP leader

Nov. 2020 – Oct. 2023

FIN-TECH

European Project, Responsible of Pillar on Fraud Detection

Jan. 2019 – Jun. 2021

MISURA

Firb Project, Responsible of Research Unit of Unipr

Oct. 2013 – Sept. 2016

Cultural District

Cariplo Project, Participation

Oct. 2011 – Sept. 2013

@bilita

Industria 2015 MISE-Project, Participation

Oct. 2010 – Sept. 2012

Evaluation of the didactic quality

CNVSU-Project, Participation

Jan. 2010 – Dec. 2010

COBEREN

Erasmus-Network project, Participation

May. 2009 – Dec. 2011

MUSING

European project, Participation

May. 2006 – Apr. 2010

DM2PMI

PRIN project, Participation

May. 2006 – Apr. 2009

SUMMER SCHOOLS

International school ‘Applied Bayesian Statistics ABS 2013

Como, Italy
Jun. 2013

International school ‘Categorical Data Analysis’ held by Prof. Emeritus A. Agresti Florence, Italy

Mar. 2013

Computational Statistics - Knowledge Extraction by Interval Data Analysis

Caserta, Italy
Nov. 2006

Mod lineari e non lineari, reti neurali e algoritmi genetici per le serie temporali

Treviso, Italy
Jun. 2003

Modelli statistici per il data mining

Rome, Italy
Oct. 2001

TEACHING ACTIVITY (LAST 5 YEARS)

2021-2022 ‘Big Data analysis’ (master course), University of Pavia.

2021-2022 ‘Basics of Coding’ (bachelor course), University of Pavia.

June 2021 ‘Advanced Statistical modeling’, Bank of Italy.

2020-2021 ‘Big Data analysis’ (master course), University of Pavia.

2020-2021 ‘Basics of Coding’ (bachelor course), University of Pavia.

2019-2020 ‘Big Data analysis’ (master course), University of Pavia.

2018-2019 ‘Big Data analysis’ (master course), University of Pavia.

2018-2019 ‘Data Mining’ master MADAS, Collegio Carlo Alberto, Turin University.

2017-2018 ‘Big Data analysis’ (master course), University of Pavia.

2017-2018 ‘Data Mining’ master MADAS, Collegio Carlo Alberto, Turin University.