

## CURRICULUM VITAE

### FRANCESCA GRESELIN

DEPARTMENT OF STATISTICS AND QUANTITATIVE METHODS  
UNIVERSITY OF MILANO BICOCCA  
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#### EDUCATION

Laurea in Mathematics (with honours), University of Trento (Italy), 1978-1983.  
Thesis advisor: Prof. M. Miranda  
Thesis title: The isoperimetric property of the  $n$ -dimensional sphere (Italian).

#### POSITIONS HELD

2025, Full Professor of Statistics, University of Milano Bicocca (Italy).  
2019, National Full Professor Qualification in Statistics (Abilitazione Scientifica Nazionale 2018-2020, II quadrimestre, idoneità I<sup>a</sup> fascia, settore 13/D1 - Statistica).  
2005 to 2024, Associate Professor of Statistics, University of Milano Bicocca (Italy).  
1998 to 2005, Assistant Professor of Statistics, University of Milano Bicocca (Italy).  
1992 to 1997, Independent Consultant.  
1986 to 1991, Visiting Professor, University of Asunción (Paraguay), member of a cooperation project, granted by the Italian Ministry of Foreign Affairs, for the development of the academic curricula of Software Engineering and Electronic Engineering in the Faculty of Science and Technology.  
1983 to 1986, Researcher, at Telettra R&D, an Italian Telecommunication Company.

#### PERSONAL DATA

Born in Milan (Italy). Italian Citizenship.

#### LANGUAGES

Italian (native), English, Spanish, French.

#### RESEARCH INTERESTS

- Mixture Models within the classification framework, by Gaussian,  $t$ -mixtures, skew distributions and mixtures of factor analyzers; with emphasis on theoretical properties of the robust estimation, using trimming and constraints. Semisupervised robust classification methods.
- Economic inequality, focusing on inequality measures, their properties, statistical inference, limit theorems and applications.
- Gender Inequality: descriptive and inferential methods for its assessment, evaluation of the impact of policies to decrease Gender Gap.
- Computational Statistics: algorithms, for the maximum likelihood estimation in presence of incomplete data (as the EM), under constraints (patterned covariance matrices), for robust estimation and for sampling from huge sample spaces, by complete enumeration (Fréchet class for association measures) or by Markov chains (Partial order sets and their linear extensions).

#### VISITING POSITIONS, HONORS AND GRANTS

- 2024 **Honorary Member, Polish Statistical Association, Recognized for significant contributions to the field of statistics and support of the association's mission.**
- 2023 Short Visiting at the University of Valladolid, Valladolid (Spain), granted by project PID2021-128314NB-I00.
- 2018 Short Visiting at INRIA, University of Lille 1, Lille (France), invited by Christophe Biernacki, Scientific Deputy at INRIA Lille, and Scientific Head of the MODAL team, granted by an Erasmus 2018 Grant of the University of Milano Bicocca.
- 2016 Short Visiting at the University of Lodz, Lodz (Poland), invited by Alina Jędrzejczak, head of Department of Statistical Methods, granted by an Erasmus 2016 Grant of the University of Milano Bicocca.
- 2016 Visiting Scholar at the University of Queensland, Brisbane (Australia), awarded by the Ethel Raybould Grant from the University of Queensland.

- 2015 Short Visiting at Laboratoire Paul Painlevé, University of Lille 1, Lille (France), invited by Youri Davydov, granted by an Erasmus 2015 Grant of the University of Milano Bicocca.
- 2014 Short Visiting at GIR de Probabilidad y Estadística Matemática, University of Valladolid, Valladolid (Spain) granted by an Erasmus 2014 Grant of the University of Milano Bicocca.
- 2011 Faculty Research Program (FRP), awarded by the International Council for Canadian Studies (ICCS), for the research project entitled: “Cross-Regional Income Inequality in Canada and Italy: Issues and Evidence”.
- 2011 Visiting University Scholar Program (VUSP) award (Completion: 2012) awarded by the Office of the Vice-President (Research and International Relations), University of Western Ontario, London, Ontario (Canada) (R. Zitakis, Principal Investigator).
- 2011 Recipient of the designation as “Western Fellow” at the University of Western Ontario, London (Canada).

#### MEMBER OF SCIENTIFIC BOARDS AND ADVISORY PANELS

- **President of the Scientific Board of the Classification and Data Analysis Group (ClaDAG) of the Italian Statistical Society (SIS) (from September 2023).**
- **Member of the Council of the International Federation of Classification Societies (since November 2024).**
- Member of the Scientific Program Committee of the Conference on Statistics and Data science 2025, April 2-3, Milan, (Italy).
- Member of the Scientific Program Committee of the ECDA 2024 conference, September 9-11, 2024, Sopot, Poland.
- Member of the Scientific Program Committee of the 17th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, May 13-16, 2024, Zakopane (Poland). <https://www.konferencjajakopianska.pl/komitet-organizacyjny>
- Member of the Scientific Program Committee of the 41st Multivariate Statistical Analysis conference, November 6-8, 2023, Lodz, Poland.
- Member of the Scientific Program Committee of the 16th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, May 8-11, 2023, Zakopane (Poland). <https://www.konferencjajakopianska.pl/komitet-organizacyjny>
- Vice President of the Scientific Board of the Classification and Data Analysis Group (ClaDAG) of the Italian Statistical Society (SIS) (from September 2021 to August 2023).
- Member of the Scientific Program Committee for the 10th International Conference on Soft Methods in Probability and Statistics (SMPS 2022), Valladolid (Spain), September 16-18, 2022. <http://smps2022.uva.es/committees/>
- Appointed from the Australian Academy of Science as a referee for the Christopher Heyde Medal (May 2021), to evaluate candidates' suitability for the award.
- Appointed from the Dean of the Faculty of Science at Carleton University (Canada) to complete an online External Assessor's Report, by reviewing the accomplishments of a faculty member considered for promotion to Associate Professor (August 2021).
- Member of the Scientific Program Committee of the 15th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, May 9-12, 2022, Zakopane (Poland). <http://pliki.konferencjajakopianska.pl/konferencja-zakopianska-2022en.pdf>
- Member of the Inter-University Scientific Committee (University of Milano-Bicocca, University of Milano, University of Pavia) for the establishment of two Master's degree courses in Artificial Intelligence (appointed in February 2021).
- Member of the Scientific Program Committee of the 14th “Professor Aleksander Zelias International Conference on Modelling and Forecasting of Socio-Economic Phenomena”, May 10-13, 2021, Zakopane (Poland). <http://www.konferencjajakopianska.pl/komitet-organizacyjny>
- Member of the Scientific Committee of DIME2020, International conference on Distributions and Inequality Measures in Economics, February 20-21, 2020 - University of Milano - Bicocca (Italy) <https://dime2020.dismeq.unimib.it/committees>
- Chair of the Scientific Program Committee of the 12th International Meeting of the Classification and Data Analysis Group (of the Italian Statistical Society), Cassino (Italy), 11-13 2019, <http://cladag2019.unicas.it/>
- Member of the Scientific Program Committee of the 13th “Professor Aleksander Zelias International Conference on Modelling and Forecasting of Socio-Economic Phenomena”, May 13-16, 2019, Zakopane (Poland).
- Member of the Scientific Council of CLADAG (Classification and Data Analysis group of the Italian Statistical Society), since 2017 <http://cladag.it/about/>

- Member of the Scientific Program Committee of the 10th International Meeting of the Classification and Data Analysis Group (of the Italian Statistical Society), Cagliari (Italy), 8-10 October 2015, <http://convegni.unica.it/cladag2015/contacts/>
- Member of the Scientific Program Committee for the International Conference on Statistics “Flint: one city, one hundred years under variability”, Flint, Michigan (US), June 24-28, 2014, sponsored by the American Statistical Society, [https://digitalcommons.kettering.edu/flint\\_statistics/](https://digitalcommons.kettering.edu/flint_statistics/)
- **Reviewer of Discovery Grants for the Natural Sciences and Engineering Research Council of Canada (NSERC) since 2011.**
- **Reviewer for research applications submitted to the Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), an independent funding agency that supports fundamental research in all disciplines in Flanders (Belgium) (since 2012).**
- Member of the REPRISE team, Register of Expert Peer Reviewers for Italian Scientific Evaluation, appointed by Italian Ministry of Education, University and Research (MIUR), for activities related to funding of proposals, or ex-ante, in itinere, and ex-post evaluation of research projects.

#### INTERNATIONAL PROJECTS

- Organizer of the ClaDAG III International School on Classification and Data Analysis, *Robust Statistics: Foundations and Recent Developments*. Lecturers: Anthony Atkinson, London School of Economics (UK); Agustin Mayo-Isacar, University of Valladolid (ES); Marco Riani, University of Parma (IT), Francesca Greselin, University of Milano-Bicocca (IT). The one-week residential school, addressed to Master, PhD students and postdocs coming worldwide, took place at the Lake Como School of Advanced Studies on May 2-6, 2022. <https://rsfd.lakecomoschool.org/>
- Member of the Board for International Programmes and Mobility of the University of Milano-Bicocca (appointed in September 2015, confirmed for 2019/2022), chaired by the Vice Rector for International Relationships.
- Elected person in charge of the Erasmus+ programs for students in Economics and Statistics (outgoing and incoming, elected 12/01/2015, till 12/01/2018).
- Coordinator of the International Relations for the Department of Statistics and Quantitative Methods (elected 12/01/2015, confirmed for 2019/2022). We have more than 40 inter-University agreements, some of them involve the whole Institution at large, other are Exchange Agreements allowing students to spend a period of time abroad at a partner university, and Double Degree Agreements as well. The involved countries are: Argentina, Belgium, Denmark, Estonia, Finland, France, Germany, Mexico, Norway, Poland, Portugal, Spain, Sweden. In the last 4 years, we have received 24 researchers coming from abroad, as visiting scholars at our Department, three of them inside the Erasmus Teaching Mobility Program.

#### THIRD MISSION ACTIVITIES

- Organization of the event *Education, Sustainability, Social Justice: the Food Bank in action*, for Festival GenerAzioni, part of the University’s calendar of events for 2021. The event will take place in the territory of Milan Municipality 9 and the Bicocca District, to involve citizens, schools, public bodies, hospitals, companies, services, businesses, and cultural realities in the themes of Education, Sustainability and Social Justice, October 7-10, 2021.
- Co-organization of Open Day Activities for the School of Economics. The events, named “Spring in Bicocca: test your future” offered to fourth and fifth year high school students the opportunity to spend a few days as freshmen, attending classes and workshops, real simulations of university life. I gave the talk “Mind the gap: Statistics to assess the Gender inequality”, May 18, 2021. <https://www.youtube.com/watch?v=UahXLNRdQg>
- Organization of a series of seminars for practitioners, professional, master and PhD students (10h lectures). Title: An introduction to Machine Learning in insurance, April 29-31, 2020. Lecturer: *Giorgio Alfredo Spedicato*, Ph.D, FCAS, FSA, CStat, Analytics di UnipolSai.
- Co-organization of the workshop *Doctorate and companies: the doctorate as an engine of innovation*, to enhance cooperation between the Milano-Bicocca PhD School and Lombardy firms. I have invited Ennio Menicucci, Head of Operational Risk Analytics and Oversight, Unicredit, to take part to the Round Table, October 14, 2019.

## INSTITUTIONAL AND/OR COORDINATION POSITIONS WITHIN OF THE UNIVERSITY

- Member of the Coalition for Advancing Research Assessment, CoARA, on behalf of the University of Milano-Bicocca. The primary purpose of the Coalition is to facilitate the exchange of information, mutual learning, sharing of good practices among all those who wish to improve research evaluation practices.
- Member of the Bicocca University Board for the monitoring and development of the Gender Equality Plan (appointed by the Rector, January 2024).
- President of the Board for Quality Assurance of the University of Milano-Bicocca Master's degree course in *Artificial Intelligence for Science and Technology* (appointed in September 2022).
- Member of the Inter-University Scientific Committee (University of Milano-Bicocca, University of Milano, University of Pavia) for the establishment of two Master's degree courses in *Artificial Intelligence* (appointed by the Rector, March 2021).
- Member of the team of professors to establish an agreement with Birkbeck, University of London, for students enrolled in the Milano-Bicocca Master degree in Economics and Finance (appointed in March 2021).
- Member of the Team for the *Gender Equality Plan* of the University of Milano-Bicocca (appointed by the Rector, July 2021), to devise, monitor and support actions for the promotion of Equality in Research and Academia.
- Member of the working group on Gender issues of the University of Milano-Bicocca (appointed in October 2020), to promote research and international projects on this crucial issue, and to prepare the Gender Budgeting 2022, by collecting internal and external data, analyzing and interpreting results.
- Member of the Boards for Quality Assurance of the University of Milano-Bicocca BSc of *Economics for Banks, Insurance and Financial Institutions*, and MSc in *Economics and Finance* (appointed in September 2020).

## INVITED SEMINARS

- 2021-03-12 Invited at the Research Webinar “Dialogues on Gender. ABCD Research Seminars, University of Milano-Bicocca”, Milan (Italy). Title of the talk: *Analyzing the Gender Gap in Poland and Italy, and by Regions*.
- 2018-10-25 Invited Seminar at Statistics Seminars 2018-19, Department of Mathematics, University College Dublin, Dublin (Ireland). Title of the talk: *Exploring robust fuzzy clustering of multivariate skew data*.
- 2016-2-2 Invited Seminar at Department of Mathematics, University of Queensland, Brisbane (Australia). Title of the talk: *The joint usage of trimming and constraints for robust estimation of mixtures of factor analyzers*.
- 2016-11-15 Invited Lecturer at the Department of Statistical Methods, University of Lodz, Lodz (Poland). Title of the talks: *Inequality Measures and their properties*.
- 2015-11-18 Invited Lecturer at Laboratoire Paul Painlevé, University of Lille 1, Lille (France). Title of the talks: *From Gini to Zenga: In Search of a More Equitable Measurement of Income Inequality*.
- 2014-2-24 Invited Lecturer at GIR de Probabilidad y Estadística Matemática, University of Valladolid, Valladolid (Spain). Title of the talks: *Los clientes de telecomunicaciones se comportan de manera similar dentro de un mismo plan de tráfico? Segmentación del mercado a través de mixturas restringidas de análisis factoriales*.
- 2011-10-7 Invited Seminar at Department of Mathematics & Statistics, University of Guelph, Guelph (Canada). Title of the talk: *From Gini to Zenga: In Search of a More Equitable Measurement of Income Inequality*.
- 2011-9-30 Invited Seminar at Department of Sociology, University of Western Ontario, London (Canada). Title of the talk: *From Gini to Zenga: the development of a new way for assessing income inequality*.
- 2011-9-22 Invited Seminar at Department of Statistical and Actuarial Sciences, University of Western Ontario, London (Canada). Title of the talk: *What do Gini and Zenga say about European household incomes?*
- 2011-9-15 Invited Seminar at Department of Economics, Carleton University, Ottawa (Canada). Title of the talk: *What do Gini and Zenga say about European household incomes?*
- 2011-7-6 Invited Seminar at Dipartimento di Impresa Culture e Società, Università di Catania, Catania (Italy). Title of the talk: *Estimating Gini's and Zenga's inequality indices on the ECHP dataset*.

## ORGANIZATION OF SCIENTIFIC CONFERENCES

- **Chair of the Organizing and Scientific Committee of International Federation of Classification Societies 2026, Milan, Italy (July 12-15, 2026)**
- Co-chair of the Organizing Committee of ICORS 2025, International conference on Robust Statistics, Stresa, Italy, May 19-23, 2025.
- Organizer of the Session *Measuring stylized facts to bridge gaps, inspire innovation and shape the future* at IDWSDS 2024, International Day of Women in Statistics and Data Science, 8 October 2024.
- Organizer of the Invited Session *Complex data: new methodologies and applications* at the Statistics and Data Science (SDS) Conference, Palermo (Italy), 11-12 April 2024.
- Organizer of the Session *Change Starts with Awareness* at IDWSDS 2023, International Day of Women in Statistics and Data Science, 10 October 2023
- Organizer of the Invited Session *Robust methods for the analysis of Complex data*, at the 10th International conference on Soft Methods in Probability and Statistics, Valladolid (Spain), 14-16 September 2022.
- Organizer of the Specialized Session *SPE6 - Advances in Classification and Data Analysis*, at the 51st Scientific Meeting of the Italian Statistical Society SIS2022, Caserta (Italy), 22-24 June 2022.
- Member of the Organizing Committee of DIME2020, International conference on Distributions and Inequality Measures in Economics, 20-21 February 2020 - University of Milano-Bicocca (Italy).
- Member of the Organizing Committee of SIS2019, the Conference of the Italian Statistical Society Milan (Italy), 19-21 June 2019, "Smart Statistical Methods for Smart Applications".
- Organizer, with Ričardas Zitikis, of the Session *EO108: Tinkering with Gini: Adaptations of the old idea to present-day realities*, at CMStatistics2018, Pisa (Italy), 14-16 December, 2018. Speakers: Nadezhda Gribkova, Joseph Gastwirth, Youri Davydov, and Ričardas Zitikis. <http://cmstatistics.org/CMStatistics2018/organized.php>
- Organizer of the Session on *New results in Model Based classification and clustering*, at the 23rd International Conference on Computational Statistics COMPSTAT 2018, Iasi (Romania), 28-31 August 2018. Speakers: Christophe Biernacki, Ranjan Maitra, Andrea Cappelletto. <http://www.compstat2018.org/invited.php>
- Chair of the Organizing Committee for the 11th International Meeting of the Classification and Data Analysis Group (of the Italian Statistical Society), Milan (Italy), 13-15 September 2017.
- Organizer (with Salvatore Ingrassia) of the Invited Session *CI083: Mixture models and classification*, at the 22th International Conference on Computational Statistics COMPSTAT 2016, Oviedo (Spain), 23-26 August 2016, <http://www.compstat6.org/invited.php>
- Organizer of the Session *CO095: Recent contributions to robust mixture modelling*, at the 22th International Conference on Computational Statistics COMPSTAT 2016, Oviedo (Spain), 23-26 August 2016.
- Organizer of the Session *SOL1 Advances in Density-based clustering*, at the 10th International Meeting of the Classification and Data Analysis Group (of the Italian Statistical Society), Cagliari (Italy), 8-10 October 2015, <http://convegni.unica.it/cladag2015/program08102015/>
- Organizer of the Session on *Recent developments in Inference based on the Lorenz and Gini index of inequality*, at the 7th International Conference of the ERCIM WG on Computational and Methodological Statistics - ERCIM 2014, Pisa (Italy), 6-8 December 2014, <http://cmstatistics.org/ERCIM2014/organized.php>
- Organizer of the Session on *Measuring inequality at the time of the Great Divergence*, at the ASA sponsored International Conference on Statistics, Flint, Michigan (US), 24-28 June 2014, [https://digitalcommons.kettering.edu/flint\\_statistics/](https://digitalcommons.kettering.edu/flint_statistics/)
- Organizer (with Ričardas Zitikis) of the Session on *New Trends in Measuring Inequality* at the Canadian Economics Association (CEA) 45th Annual Conference. University of Ottawa, Ontario (Canada), 2-5 June 2011, <https://economics.ca/2011/en/program.php>
- Organizer, Chair and Discussant of the Specialized Session on *Advances in Student-t based statistical modeling* for the Classification and Data Analysis Group of the Italian Statistical Society, ClaDAG 8th Scientific Meeting, University of Pavia (Italy), September 2011, <http://archivio.paviauniversitypress.it/pdf/oa/cerchiello-cladag-2011.pdf>

## ORGANIZED SEMINARS WITHIN DEPARTMENTAL ACTIVITIES

- *Ahmed Alsayed*, PhD, University of Milan (Italy), Title: Robust Estimation and Outlier Detection in Energy-Environmental Sciences, March 30, 2022.
- *Agustín Mayo-Iscar*, PhD, University of Valladolid (Spain), Title: Robust proposals for clustering based on trimming on constraints, May 12, 2022.

- *Youri Davydov*, PhD, University of St. Petersburg (*Russia*), series of lectures for PhD students and researchers (18 h lectures), Title: Stochastic Processes, February 24-27, 2020.
- *Giorgio Alfredo Spedicato*, PhD, FCAS, FSA, CStat, Analytics di UnipolSai, Title: Actuarial models for non-life pricing: a comparison between traditional GLMs and Machine Learning methods, May 22, 2019. EcoFIN
- *Youri Davydov*, PhD, University of St. Petersburg (*Russia*), series of lectures for PhD students and researchers (18 h lectures), Title: Stochastic Processes, February 19-26, 2019.
- *Youri Davydov*, PhD, University of Lille, Lille (*France*), series of lectures for PhD students and researchers (18 h lectures), Title: Stochastic Processes, February 5-14, 2018.
- *Youri Davydov*, PhD, University of Lille, Lille (*France*), series of lectures for PhD students and researchers (18 h lectures), Title: Stochastic Processes, March 21-30, 2017.
- *Kaleb Leemaqz*, PhD, University of Queensland, Brisbane (*Australia*), Title: Scaling Up and Out: Platforms and Technologies for Big Data in Machine Learning, September 20, 2016.
- *Sharon Lee*, PhD, University of Queensland, Brisbane (*Australia*), Title: A mixed effects skew t-mixture model for the clustering and classification of batch data, September 22, 2016.
- *Ankit Jain*, internship student from IIT Kanpur (*India*), Title: Building an R package, June 11, 2015; Title: Toward an R package for the Zenga inequality measure, July 17, 2015.
- *Ricardas Zitikis*, PhD, University of Western Ontario, London (*Canada*), Title: Assessing risks: Issues and solutions, December 3, 2014.
- *Abdelhakim Necir*, University Mohamed Khider of Biskra (*Algeria*), Title: A Kaplan-Meier process for a heavy-tail distribution toward the tail index estimation under random censoring, September 19, 2014.
- *Geoff McLachlan*, University of Queensland, Brisbane (*Australia*), series of seminars for PhD students and researchers (10 h lectures), Title: An Introduction to Mixture Modelling, September 8, 2014; Title: On Extensions to Normal Mixtures for Modelling Complex Datasets, September 8, 2014.
- *Anu Khandwal*, internship student from IIT Kanpur (*India*), Title: Measuring inequality in U.S. cities at the time of the great divergence, July 18, 2014.
- *Madan L. Puri*, Professor Emeritus at Indiana University, Bloomington (*USA*). Title: Asymptotic Normality, Rates of Convergence, and Large Deviation Probabilities for a Broad Class of Statistics, June 24, 2013.
- *Bradley A. Corbett*, Statistics Canada Research Data Centre, University of Western Ontario, London (*Canada*), Title: Beyond the formula: How methodology can impact measures of income inequality, April 13, 2012.
- *Ricardas Zitikis*, PhD, University of Western Ontario, London (*Canada*), Empirical Processes in Econometrics: A Practitioner's viewpoint, series of seminars for PhD students and researchers (20 h lectures), Univ. Milano-Bicocca, September 8-10, 2010.

#### INVITED TALKS IN SCIENTIFIC CONFERENCES

- **Plenary speaker** at the 42nd Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 4-6 November 2024. Title of the talk: *Studying hierarchical latent structures in heterogeneous populations with missing information*
- **Plenary speaker** at the 41st Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 6-8 November 2023. Title of the talk: *Measuring income inequality via percentile relativities*
- **Plenary speaker** at the 14th Scientific Meeting of the Classification and Data Analysis Group, Salerno (Italy), September 11-13, 2023. Title of the talk: *To get the best, tame the "beast": robust ML estimation for mixture models.*
- Invited speaker at the 40th Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 7-9 November 2022. Title of the talk: *A two-stage Bayesian procedure for novelty detection.*
- Invited speaker at the Session *Advances in methods for clustering*, at the 10th International conference on Soft Methods in Probability and Statistics, Valladolid (Spain), 14-16 September 2022. Title of the talk: *Monitoring tools in Robust CWM for the analysis of crime data.*
- **Plenary speaker** at the 39th Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 8-10 November 2021. Title of the talk: *Parameter Choice, Stability and Validity for Robust Cluster Weighted Modeling.*
- Invited speaker at the Session "Advances in robust cluster analysis" at the 13th Scientific Meeting of the Classification and Data Analysis Group Firenze (Italy), September 9-11, 2021. Title of the talk: *Robust classification of spectroscopic data in agri-food: a first analysis on the stability of results.*
- **Plenary speaker** at the 14th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 2021, organised by the Department of Statistics at Cracow University of Economics and the Committee of Statistics and Econometrics of the Polish Academy of Sciences. Title of the talk: *Robust dimension reduction for classification of spectroscopic data in agri-food.*

- **Plenary speaker** at the 38th Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 4-6 November 2019. Title of the talk: *Advances in learning from contaminated datasets*.
- Invited speaker at the Session “Modelling and Clustering Complex Data” organized by Geoffrey McLachlan at the 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CM-Statistics 2019), Senate House, University of London (UK), 14-16 December 2019. Title of the talk: *Robust and efficient estimates of partition and model parameters: a step beyond the usual normality assumption*.
- Invited speaker at the Conference “Stochastic Geometry”, Saint-Petersburg (Russia) September 16-20, 2019, sponsored by Euler Mathematical Institute & Chebyshev Laboratory of St. Petersburg State University <https://www.geometry2019.com/participants>. Title of the talk: *Inferential results for a new inequality curve*.
- Invited speaker at the Invited Session “Classification methods in economics and business” at the 16th Conference of the International Federation of Classification Societies, Thessaloniki (Greece) August 26-29, 2019. Title of the talk: *Fuzzy clustering with skew components, with applications in Economics and Business*.
- Invited speaker at the 13th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 2019, organised by the Department of Statistics at Cracow University of Economics and the Committee of Statistics and Econometrics of the Polish Academy of Sciences. Title of the talk: *Robust fuzzy clustering for skew socio-economic data*.
- Invited speaker at the 11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018), Pisa (Italy), 14-16 December 2018, within the session “Supervised and Unsupervised Learning”. Title of the talk: *Extending robust fuzzy clustering to skew data*.
- Invited speaker at CompSTAT 2018, Iasi (Romania), August 28-31, 2018, within the session “CO068: Soft clustering”. Title of the talk: *Fuzzy clustering for heterogenous skew data*.
- Invited speaker at the 49th Scientific Meeting of the Italian Statistical Society (SIS 2018), June 20-22, 2018, Palermo (Italy), within the Solicited Session on “New perspectives in supervised and unsupervised classification”. Title of the talk: *Robust Updating Classification Rule, with applications in Food Authenticity Studies*.
- **Plenary speaker** at the 19th International Scientific Conference on Quantitative Methods in Economics (QME), Warsaw (Poland), June 18-19, 2018, Title of the talk: *Analyzing and comparing gender gap in Poland and Italy*.
- Invited speaker at the XXXVII Congreso Nacional de Estadística e Investigación Operativa y de las XI Jornadas de Estadística Pública, Oviedo (Spain), May 29-June 1st, 2018. Title of the talk: *Advances in robust estimation of skew normal mixtures: addressing the issue of truncated moments*.
- Invited **plenary speaker** at the “12th International Scientific Conference on Modelling and Forecasting of Socio-Economic Phenomena”, dedicated to the memory of Professor Aleksander Zelia, Zakopane (Poland), 8-10 May 2018. Title of the talk: *Robust clustering methods for multivariate socio-economic data*.
- Invited speaker at the 10th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2017), 16-18 December 2017, Senate House, University of London (UK), “Session EO232: Clustering/classification and mixtures I”. Title of the talk: *Advances in robust estimation of skew normal mixtures*.
- **Plenary speaker** at the III International Workshop on Proximity Data, Multivariate Analysis and Classification, Valladolid (Spain), October 26-27, 2017. Title of the talk: *To get the best, tame the beast: constrained ML estimation for mixture models*.
- Invited speaker at the Summer Session of the Working Group on Model-Based Clustering, Perugia (Italy), 17-21 July 2017, (details on past workshops: [http://www.stat.washington.edu/raftery/Onrgroup/onrgroup\\$\\\\_past.html](http://www.stat.washington.edu/raftery/Onrgroup/onrgroup$\\_past.html)). Title of the talk: *New developments on robust estimation for mixtures*. <http://w3.mi.parisdescartes.fr/~cbouveyr/WGMB17.html>
- Invited speaker at the ISI 2017 World Congress, Marrakech (Marocco), 16-21 July 2017. Session “State of the art and advances in modern empirical process theory in welfare analysis” (declined due to overlapping with previous item).
- Invited speaker in the Session “EO115: Mixture models for complex data sets”, 9th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2016), Sevilla (Spain), December 9-11, 2016. Title of the talk: *A fuzzy version of robust mixtures of Gaussian factor analyzers*.
- Invited speaker at the 35th Conference on Multivariate Statistical Analysis MSA 2016, Lodz (Poland), November 6-9, 2016. Title of the talk: *Parsimonious and robust clustering*.
- Invited speaker in the Session “Robust statistics”, Soft Methods in Probability and Statistics SMPS2016, Rome (Italy), September 12-14, 2016. Title of the talk: *Fuzzy clustering through robust factor analyzers*.
- Invited speaker in the Session “Robust estimation in model-based clustering”, MBC2 Workshop on Model-Based Clustering and Classification, Catania (Italy), September 5-7, 2016. Title of the talk: *Robust estimation in model-based clustering*.

- Invited speaker at the 22nd International Conference on Computational Statistics COMPSTAT 2016, Oviedo (Spain), 23-27 August 2016, in the Session “CI083: Recent developments in mixture models”. Title of the talk: *Robust clustering of multivariate skew data*.
- Invited speaker at 8th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2017), 12-14 December 2015, Senate House, University of London (UK), in Specialized Session EO190: “Advances in Mixture modelling”. Title of the talk: *Robust estimation for mixtures of Skew data*.
- Invited speaker at the Conference of the International Federation of Classification Societies (IFCS), Bologna, (Italy), 6-8 July 2015, in Session “SP4: Mixture Models: Recent Developments and Applications for Unsupervised and Supervised Classification”. Title of the talk: *The joint role of trimming and constraints in robust estimation for mixtures of skew normal*.
- Invited speaker at the 7th International Conference of the ERCIM WG on Computing & Statistics (CM-Statistics 2014), Pisa (Italy), 6-8 December 2014, in Session “ES89: Robust statistics in R”. Title of the talk: *Robust model estimation, through trimming and constraints, for mixtures of factor analyzers*.
- Invited speaker at the International Conference on Statistics “Flint: one city, one hundred years under variability”, Flint, (Michigan, USA) 23-28 June, 2014. Title of the talk: *Measuring Inequality at the Time of the Great Divergence*.
- Invited speaker at the 47th Scientific Meeting of the Italian Statistical Society, in Solicited Session “SL13 - Computations with Intractable Likelihood”. Title of the talk: *An adaptive method to robustify ML estimation in Cluster Weighted Modeling*, Cagliari (Italy), 11-13 June 2014.
- Invited speaker at 6th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2013), London (UK), 14-16 December 2013, in Session “ES28: Advances in robust data analysis”. Title of the talk: *A robust approach to Cluster Weighted Modeling*.
- Invited speaker at SIS 2013 Statistical conference: Advances in Latent Variables - Methods, Models and Applications, Brescia (Italy), 19-21 June 2013, in the Specialized Session “M1.2: Latent variable models for marketing research”. Title of the talk: *Market segmentation via mixtures of constrained factor analyzers*.
- Invited speaker at AISC 2012, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, 5-7 October 2012, Greensboro, NC (USA), within Session “CEUC 55: Statistical Modeling and Inference in Economics And Insurance”. Title of the talk: *Unequal perspectives on inequality: a comparison among the evergreen Gini and the new Zenga indices*.
- Invited speaker at the 45th Annual Conference of the Canadian Economics Association, Ottawa (Canada), in Session “New Trends in Measuring Inequality / Méseure des inégalité - Nouvelles tendances”. Title of the talk: *Geographical differences in income inequality: a comparison between Canada and Italy*.



## PARTICIPATION TO PhD SCHOOLS

- Member of the Scientific Committee of the Ph.D. School of Economics and Statistics - ECOSTAT (since 2018).
- Member of the Selection Committee for the Candidates to the XXXVIII Cycle of the Ph.D. School of Economics and Statistics - ECOSTATDATA (Session III), Univ. Milano-Bicocca.
- Member of the Selection Committee for the Candidates to the XXXVI Cycle of the Ph.D. School of Economics and Statistics - ECOSTAT, Univ. Milano-Bicocca.
- Vice Coordinator of the Ph.D. School in Statistics and Mathematical Finance (XXXIII Cycle)
- Member of the PhD School Board of the University of Milano-Bicocca (2017-2021).
- Member of the Scientific Committee of the Ph.D. School of Statistics and Mathematics for Finance (2011-2018).
- Member of the Selection Committee for the Candidates to the XXXII Cycle of the Ph.D. School of Statistics and Mathematics for Finance, Univ. Milano-Bicocca.
- Member of the Selection Committee for the Candidates to the XXXI Cycle the Ph.D. School of Statistics and Mathematics for Finance, Univ. Milano-Bicocca.

## POST-DOC/PH.D./INTERNSHIP SUPERVISION

- 2024-, *Giorgia Zaccaria*, Post-Doc project: Development of robust statistical models for multivariate and complex data, and their applications.
- 2022-2024, *Giorgia Zaccaria*, Post-Doc project: Advances in robust learning from multidimensional and complex data, and their applications.
- 2022-, *Tamara Vasiljev*, Ph.D. thesis: T.B.A.
- 2020-2021, *Andrea Cappelletto*, Post-Doc project: Robust adaptive model-based semi-supervised classification: advances in learning from shifted data.
- 2019-, *Fabio Piacenza*, Ph.D. thesis: Holistic Approach to Operational Risk: Issues, Solutions, and Decision Making.
- 2018-2022, *Anna Comotti*, Ph.D. thesis: Assessing psychometric scales through IRT-based modelling, with applications to Covid-19 data.
- 2017-2020, *Andrea Cappelletto*, Ph.D. thesis: Robust model-based classification and clustering: advances in learning from contaminated datasets.
- 2015, *Ankit Jain*, internship student from IIT Kanpur (*India*), Research project: An R package for the Zenga inequality measure.
- 2014, *Anu Khandwal*, internship student from IIT Kanpur (*India*), Research project: Measuring inequality in U.S. cities at the time of the great divergence.
- 2006-2009, *Cinzia D'Ariano*, Ph.D. thesis: Inferential approaches to a new inequality measure.
- 2003-2006, *Leo Pasquazzi*, Ph.D. thesis: Asymptotic and Non-Parametric Confidence Intervals for the Gini's inequality measure.

## AFFILIATION TO SCIENTIFIC SOCIETIES

- Italian Statistical Society (SIS);
- Classification and Data Analysis Group of the SIS;
- International Statistical Institute (ISI);
- International Federation of Classification Society (IFCS);
- Polish Statistical Society;
- Classification Society (formerly, the Classification Society of North America, CSNA);
- European Research Consortium for Informatics and Mathematics (ERCIM) Working Group - Computational and Methodological Statistics (CMStatistics) Working Teams: GCS: General Computational Statistics; GMS: General Methodological Statistics; MM: Mixture Models; RACDS: Robust Analysis of Complex Data Sets;
- BiostatEpi Association for Information and Training in Biostatistics and Epidemiology.

## EDITORIAL ACTIVITIES AND JOURNAL BOARD MEMBERSHIP

- Associate Editor of *Statistics and Computing*.
- Member of the Panel of reviewers for Mathematical Reviews, of the American Mathematical Society.
- Guest Editor, with Thomas Brendan Murphy, Giovanni Porzio and Domenico Vistocco, of *Statistical Analysis and Data Mining: The ASA Data Science Journal*, for the CLADAG 2019 Special Issue, 14, 4, 2021, <https://onlinelibrary.wiley.com/doi/10.1002/sam.11533>
- Editor, with Giovanni Porzio and Simona Balzano, of *Book of short papers Cladag2019*, Centro Editoriale di Ateneo Università di Cassino e del Lazio Meridionale, Cassino (Italy), ISBN: 978-88-8317-108-6
- Guest Editor, with Claudio Conversano, Thomas Brendan Murphy and Anna Paganoni, of *Statistical Analysis and Data Mining: The ASA Data Science Journal*, for the CLADAG 2017 Special Issue, 2019.
- Editor, with Laura Deldossi, Luca Bagnato and Maurizio Vichi, of *Statistical Learning of Complex Data*, Springer Series “Studies in Classification, Data Analysis, and Knowledge Organization”, ISBN 978-3-030-21140-0, <https://www.springer.com/gp/book/9783030211394>
- Editor, with Francesco Mola and Mariangela Zenga, of *Cladag 2017 Book of Short Papers*, ISBN 978-88-99459-71-0, Universitas Studiorum (e-book, PDF version, September 7, 2017), [http://www.universitas-studiorum.it/1/cladag\\\_2017\\\_book\\\_of\\\_short\\\_papers\\\_2852494.html](http://www.universitas-studiorum.it/1/cladag\_2017\_book\_of\_short\_papers\_2852494.html)
- Guest Editor, with Thomas Brendan Murphy, Paolo Giudici and Carla Rampichini of *Statistical Analysis and Data Mining: The ASA Data Science Journal*, for the CLADAG 2015 Special Issue, 10, 1, 2017, <https://onlinelibrary.wiley.com/toc/19321872/10/1>
- Member of the Editorial Board of the journal *Socio-Economic Modelling and Forecasting*, <http://semf.pl>
- Member of the Editorial Board of the journal *Statistika: Statistics and Economy Journal* (since 2014), [https://www.czso.cz/csu/czso/editorial\\_board](https://www.czso.cz/csu/czso/editorial_board)
- Member of the Editorial Board of the journal *Silesian Statistical review* (since 2013), <https://journals.ue.wroc.pl/sps>
- Member of the Editorial Committee of the journal *Statistica & Applicazioni* (since 2005), <https://statisticaeapplicazioni.vitaepensiero.it/la-rivista.html>
- Member of the Scientific Board of the journal *Quantitative Methods in Economics* (since 2013), <https://qme.sggw.edu.pl/about/editorialTeam>

## REFEREEING

Francesca Greselin works as a referee for the following scientific journals:

*Advances in Data Analysis and Classification*, *Australian and New Zealand Journal of Statistics*, *Bioinformatics*, *Biometrical Journal*, *Canadian Journal of Statistics*, *Colombian Journal of Statistics*, *Communications in Statistics - Simulation and Computation*, *Communications in Statistics - Theory and Methods*, *Computational Statistics and Data Analysis*, *Computers and Mathematics with Applications*, *Dependence Modeling*, *Energy Efficiency*, *Entrepreneurial Business and Economics Review*, *Folia Oeconomica Stetinensia*, *International Journal of Approximate Reasoning*, *Journal of Applied Statistics*, *Journal of Classification*, *Journal of Computational and Graphical Statistics*, *Journal of Official Statistics*, *Journal of Probability and Statistics*, *Journal of Statistical Theory and Practice*, *Journal of Statistical Planning and Inference*, *Mathematical Economics*, *Mathematical problems in engineering*, *Metron*, *Pattern Recognition*, *PLOS Computational Biology*, *Review of National Accounts*, *REV-STAT Statistical Journal*, *Revista Colombiana de Estadística*, *Statistica*, *Statistical Methods and Applications*, *Statistica & Applicazioni*, *Statistics and Computing*, *Statistics and Probability Letters*, *Statistics in Transitions*, *Test*, *The Canadian Journal of Statistics*, *The Journal of Economic Inequality*, *Wiley Interdisciplinary Reviews: Computational Statistics*.

## TEACHING

- 2022-now *Advanced Foundations of Statistics for Artificial Intelligence* within the Master's degree program in Artificial Intelligence for Science and Technology, jointly organized by the University of Milano-Bicocca, the University of Milan, and the University of Pavia, 32 hours
- 2020-now Statistical Modeling (PhD lectures, Univ. Milano-Bicocca, 12 hours)
- 2021 *Modelos de Mixturas, con aplicaciones en R* (International Specialization course), organized by the Universidad Nacional de San Agustín, Departamento Académico de Estadística, Arequipa (Peru) 17–28, May 2021 (20 hours on-line; with Andrea Cappelletto, for lab sessions)
- 2014-2019 *Statistical Inference* (PhD lectures, Univ. Milano-Bicocca, 12 hours)
- 2015-2016 *Risk analysis* (graduate course, Univ. Milano-Bicocca, 21 hours)
- 2016-now *Statistics for Insurance* (graduate course, Univ. Milano-Bicocca, 21 hours)
- 2016 *Teaching Mobility*: Lecturer (8 hours) on: *Inequality Measures and their properties*, at the Department of Statistical Methods, University of Lodz, Lodz (Poland)
- 2015 *Teaching Mobility*: Lecturer (8 hours) on: *Inequality Measures and their properties: a comparison*, at Laboratoire Paul Painlevé, University of Lille 1, Lille (France)
- 2014 *Teaching Mobility*: Lecturer (8 hours) on: *Mixturas robustas de análisis factoriales*, at GIR de Probabilidad y Estadística Matemática, University of Valladolid, Valladolid (Spain)
- 2005-2013 *Random variables and their transformations* (PhD lectures, Univ. Milano-Bicocca, 12 hours)
- 2008 *Mixture Models in R* (PhD lectures in Computational Statistics), organized by the University Consortium Nova Universitas at Macerata University, Macerata (Italy) (10 hours)
- 1998-2005 *Computational Statistics* (PhD lectures, Univ. Milano-Bicocca, 12 hours)
- 2001-now *Statistics for Finance* (undergraduate course, Univ. Milano-Bicocca, 56 hours)
- 2009-2012 *Statistical Inference* (undergraduate course, Univ. Milano-Bicocca, 21 hours)
- 1999-2022 *Statistics* (undergraduate course, Univ. Milano-Bicocca, 64 hours)
- 1996-2010 *Computational Statistics* (postgraduate course, Univ. Milano-Bicocca, 48 hours)
- 1986-1987 *Programming Languages* (undergraduate course, Univ. Asunción (Paraguay), 48 hours)
- 1987-1989 *Compilers* (undergraduate course, Univ. Asunción (Paraguay), 48 hours)
- 1988-1990 *Artificial Intelligence* (graduate course, Univ. Asunción (Paraguay), 24 hours)
- 1989-1991 *Software Engineering* (graduate course, Univ. Asunción (Paraguay), 24 hours)

## RESEARCH PROJECTS AND GRANTS

- 2022- Member of the research project PRIN 2022 (Progetti di Rilevante Interesse Nazionale) Project code: 2022-LANNKC, Project title: "Innovative statistical tools for the analysis of large and heterogeneous customs data", Coordinator: RIANI Marco, ERC: PE1-14, University: Università degli Studi di PARMA
- 2022- Member of the project PID2021-128314NB-I00, coordinated by Eustasio del Barrio y Luis Angel García-Escudero, entitled "Development of new methodologies for classification for complex data", granted by the Spanish Ministerio de Ciencia e Innovación. Other members of the research group J. A. Cuesta-Albertos (University of Cantabria), M. Hallin (Université libre de Bruxelles), J.M. Loubes, (Université de Toulouse), D. Rodríguez-Vitores and M. Riani (University of Parma)
- 2021 **Principal investigator** in *CovX: un sistema di distanziamento sociale adattativo per limitare la diffusione del SARS-COV-2* project submitted to the Call: Fondo Integrativo Speciale per la Ricerca (FISR) Decreto Direttoriale n. 562 del 05/05/2020. The project has been positively evaluated by MIUR and received funding from Milano-Bicocca Fondo di Ateneo Quota Competitiva - 2021-ATEQC-0036.
- 2020 Member of the project H2020 PILLARS - Pathways to inclusive Labour Markets, coordinated by Fabio Mercorio, Univ. Milano-Bicocca.
- 2017 **Project leader** of the project 2017-NAZ-0095, granted by Cariplo Foundation, to organize the scientific event YOUNG CLADAG, as a satellite of the eleventh scientific meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society (SIS).
- 2021 **Project leader** of the Progetto di ricerca Ateneo-quota competitiva 2021-ATEQC-0036 "A probabilistic model for the development of an adaptive social distancing system"
- 2008-2024 **Principal investigator** of the following Projects granted by *Fondo d'Ateneo per la Ricerca* - Università degli Studi di Milano-Bicocca, indicated by their IRIS code (totalizing around 50 thousand Euro):
- 2024-ATE-0546: "Interdisciplinary study of gender inequality in European and Latin American countries", in a scientific cooperation with Mariangela Zenga, Anamaria Gonzales and Erika Grammatica, University of Milano-Bicocca.

2023-ATE-0448: “Sustainability practices and choice of luxury and green skin-care products”, in a scientific cooperation with Paolo Galli, Miriam Colombo, and Tamara Vasiljev, University of Milano-Bicocca.

2021-ATE-0707: “Robust estimation of Item Response models, for the measurement of person latent traits”, in a scientific cooperation with M. Bonzini and A. Comotti, Foundation IRCCS Ca’ Granda Ospedale Maggiore Policlinico.

2020-ATE-0537: “Robust variable selection in semi-supervised learning”, with Andrea Cappozzo, in a scientific cooperation with T.B. Murphy, University College Dublin (Ireland), generating co-authorship of many papers

2019-ATE-0076: “Semi-supervised learning in presence of outliers, label noise and unobserved classes”, with Andrea Cappozzo, in cooperation with T.B. Murphy, University College Dublin (Ireland)

2017-ATE-0531: “Stima Robusta di Misure di Normali asimmetriche”, to foster the scientific cooperation with A. Mayo Iscar and L.A. García-Escudero University of Valladolid (Spain), and G. McLachlan of the University of Queensland, Brisbane (Australia) on Mixture modeling for skew data.

2016-ATE-0378: “Fuzzy Clustering mediante Misure di Modelli di Analisi Fattoriale”, in scientific cooperation with A. Mayo Iscar and L.A. García-Escudero, University of Valladolid (Spain)

2015-ATE-0262: “Stima Robusta di Misure di Modelli di Analisi Fattoriale”, in scientific cooperation with A. Mayo Iscar, L.A. García-Escudero and A. Gordaliza, University of Valladolid (Spain)

2014-ATE-0514: “Stima robusta per modelli mistura Cluster Weighted”, in cooperation with A. Mayo Iscar, L.A. García-Escudero and A. Gordaliza, University of Valladolid (Spain)

2013-ATE-0592: “Massimizzazione vincolata della Likelihood per miscele di Factor Analyzers e loro applicazioni in ambito economico”, with Leo Pasquazzi, to start a scientific cooperation with A. Mayo Iscar, L.A. García-Escudero and A. Gordaliza, University of Valladolid (Spain)

2011-ATE-0392: “Inferenza per il nuovo indice di concentrazione di Zenga, nel caso di distribuzioni con code pesanti”, with Leo Pasquazzi and within a scientific cooperation with R. Zitikis, University of Western Ontario, London (Canada)

2010-ATE-0375: “Intervalli di confidenza parametrici per gli indici di concentrazione di Gini e di Zenga”, with Leo Pasquazzi and R. Zitikis, University of Western Ontario, London (Canada)

2009-ATE-0515: “Distribuzione asintotica di un nuovo indice di disuguaglianza”, with Leo Pasquazzi and R. Zitikis, University of Western Ontario, London (Canada)

2008-ATE-0089: “Intervalli di Confidenza per l’indice di Concentrazione di Zenga”, with Leo Pasquazzi, in a scientific cooperation with R. Zitikis, University of Western Ontario, London (Canada)

2002-2004 Member of the research co-funded PRIN (2002), entitled “Metodi statistici per ordinamenti stocastici con applicazioni socio sanitarie ed ambientali”. Coordinator Antonio Forcina prot. n. 2002133957

# PUBLICATIONS

## SUBMITTED PAPERS

- Di Vincenzo D., Greselin F., Piacenza F., Zitikis R., *A tweet data analysis for detecting emerging operational risks*, 2024 (submitted)

## PUBLICATIONS IN SCIENTIFIC JOURNALS

1. Zaccaria G, García-Escudero, L.A., Greselin, F., Mayo-Isar, A., 2025, Cellwise outlier detection in heterogeneous populations, *Technometrics*, DOI: 10.1080/00401706.2025.2497822
2. Vasiljev T., Salvioni L., Colombo M., Galli P., Greselin F., 2025, From animal testing to in Silico models: a systematic review and practical guide to cosmetic assessment. *Statistical Methods & Applications* <https://doi.org/10.1007/s10260-025-00794-0>
3. Greselin F. and Zaccaria G., 2024, Studying Hierarchical Latent Structures in Heterogeneous Populations with Missing Information, *Journal of Classification*, <https://doi.org/10.1007/s00357-024-09492-0>
4. Brazauskas V., Greselin F., Zitikis R., 2024, Measuring income inequality via percentile relativities, *Quality and Quantity*, <https://doi.org/10.1007/s11135-024-01881-2>
5. Di Vincenzo D., Greselin F., Piacenza F., Zitikis R., 2023, A text analysis of operational risk loss descriptions, *The Journal of Operational Risk*, 18(3), 63–90. DOI: 10.21314/JOP.2023.003
6. Greselin F., Jędrzejczak A., Trzcińska K., 2023, A new parametric approach to Gender Gap, with application to EUSILC data in Poland and Italy, *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 16(4), 319–335. DOI: 10.1002/sam.11623
7. Comotti A., Fattori A., Greselin F., Bordini L., Brambilla P., Bonzini M., 2023, Psychometric Evaluation of GHQ-12 as a Screening Tool for Psychological Impairment of Healthcare Workers Facing COVID-19 Pandemic, *La Medicina del Lavoro / Work, Environment and Health*, 114, 1. <https://doi.org/10.23749/mdl.v114i1.13918>
8. Cappozzo A., García-Escudero, L.A., Greselin, F., Mayo-Isar, A., 2022, Graphical and computational tools to guide parameter choice for the cluster weighted robust model, *Journal of Computational and Graphical Statistics* 32:3, 1195–1214, <https://doi.org/10.1080/10618600.2022.2154218>
9. Denti F., Cappozzo A., Greselin F., 2021, A Two-Stage Bayesian Nonparametric Model for Novelty Detection with Robust Prior Information, *Statistics and Computing* 31, 42, <https://doi.org/10.1007/s11222-021-10017-7>
10. Cappozzo A., Duponchel L., Greselin F., Murphy T.B., 2021, Robust variable selection in the framework of classification with label noise and outliers: applications to spectroscopic data in agri-food, *Analytica Chimica Acta*, 1153, 338245.
11. Cappozzo A., García-Escudero L.A., Greselin F., Mayo-Isar A., 2021, Parameter Choice, Stability and Validity for Robust Cluster Weighted Modeling, *Stats*, 4, 602–615, <https://doi.org/10.3390/stats4030036>
12. Cappozzo A., Greselin F., Murphy T.B., 2021, Robust variable selection for model-based learning in presence of adulteration, *Computational Statistics and Data Analysis*, 158, 107186, <https://doi.org/10.1016/j.csda.2021.107186> <https://doi.org/10.1016/j.csda.2021.107186>
13. Greselin F., Murphy T.B., Porzio G.C., Vistocco D., 2021, CLADAG 2019 Special Issue: Selected Papers on Classification and Data Analysis, *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 14 4, 295–296.
14. Davydov Y., Greselin F., 2021, Inferential results for a new inequality curve, *Mathematical Methods of Statistics*, 30 (1-2), 1-15.
15. Greselin F., Jędrzejczak A., 2020, Analyzing the Gender Gap in Poland and Italy, and by Regions, *International Advances in Economic Research*, 26, 433–447.
16. Greselin F., Pellegrino S., Vernizzi A., 2021, The Zenga Equality curve: a new approach to measuring tax redistribution and progressivity, *Review of Income and Wealth*, 67(4): 950-976, <https://onlinelibrary.wiley.com/doi/abs/10.1111/roiw.12493>.
17. Cappozzo A., Greselin F., Murphy B., 2020, Anomaly and Novelty detection for robust semi-supervised learning, *Statistics and Computing*, 30, 1545–1571.
18. Cappozzo A., Greselin F., Murphy B., 2020, A robust approach to model-based classification based on trimming and constraints, *Advances in Data Analysis and Classification*, 14, 327–354.
19. Davydov Y., Greselin F., 2020, Comparisons between poorest and richest to measure inequality, *Sociological Methods and Research*, 49, 2, 526–561.

20. Greselin F., Piacenza F., Zitikis R., 2019, Practice Oriented and Monte Carlo Based Estimation of the Value-at-Risk for Operational Risk Measurement, *Risks*, 7(2), 50.
21. Davydov Y., Greselin F., 2019, Inferential results for a new measure of inequality, *Econometrics Journal*, 22 (2), 153–172.
22. García-Escudero L.A., Greselin F., Mayo-Iscar A., 2018, Robust fuzzy and parsimonious clustering based on mixtures of factor analyzers, *International Journal of Approximate Reasoning*, 94, 60–75.
23. Greselin F., Zitikis R., 2018, From the classical Gini index of income inequality to a new Zenga-type relative measure of risk: a modeller's perspective, *Econometrics*, 6(1), 4.
24. García-Escudero L.A., Gordaliza A., Greselin F., Ingrassia S., Mayo-Iscar A., 2018, Eigenvalues and constraints in mixture modeling: geometric and computational issues, *Advances in Data Analysis and Classification*, 12, 2, 203–233.
25. Giudici P., Greselin F., Murphy T. B. and Rampichini C., 2017, CLADAG 2015 special issue: Selected papers on classification and data analysis, *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 10, 5.
26. García-Escudero L.A., Gordaliza A., Greselin F., Ingrassia S., Mayo-Iscar A., 2017, Robust estimation of mixtures of regressions with random covariates, via trimming and constraints, *Statistics and Computing*, 27, 2, 377–402.
27. García-Escudero L.A., Gordaliza A., Greselin F., Ingrassia S., Mayo-Iscar A., 2016, The joint role of trimming and constraints in robust estimation of Gaussian factor analyzers, *Computational Statistics and Data Analysis*, 99, 131–147.
28. Greselin F., Ingrassia S., 2015, Maximum likelihood estimation in constrained parameter spaces for mixtures of factor analyzers, *Statistics and Computing*, 25, 2, 215–226.
29. Greselin F., Pasquazzi L., 2015, Parametric vs non-parametric inference on Zenga index of inequality: issues and evidence from survey data, *Communications in Statistics - Simulation and Computation*, 44, 1702–1719.
30. Greselin F., 2014, More equal and poorer, or richer but more unequal?, *Economic Quality Control*, 29, 2, 99–117.
31. Greselin F., Pasquazzi L., Zitikis R., 2014, Heavy tailed capital incomes: Zenga index, statistical inference, and ECHP data analysis, *Extremes*, 17, 1, 127–155.
32. Bagnato L., Greselin F., Punzo A., 2014, On the Spectral Decomposition in Normal Discriminant Analysis, *Communications in Statistics - Simulation and Computation*, 43, 6, 1471–1489.
33. Greselin F., Punzo A., 2013, Closed Likelihood-Ratio Testing Procedures to Assess Similarity of Covariance Matrices, *The American Statistician*, 67, 3, 117–128.
34. Greselin F., Pasquazzi L., Zitikis R., 2012, Contrasting the Gini and Zenga indices of economic inequality, *Journal of Applied Statistics*, 40, 2, 282–297.
35. Fattore M., Maggino F., Greselin F., 2011, Socio-economic evaluation with ordinal variables: integrating counting and poset approaches, *Statistica & Applicazioni*, Special Issue: Partial Orders in Applied Sciences, 31–42.
36. Greselin F., Ingrassia S., Punzo A., 2011, Assessing the pattern of covariance matrices via an augmentation multiple testing procedure, *Statistical Methods and Applications*, 20, 2, 141–170.
37. Greselin F., Pasquazzi L., Zitikis R., 2010, Zenga's new index of economic inequality, its estimation, and an analysis of incomes in Italy, *Journal of Probability and Statistics*, 26 pp.
38. Greselin F., Ingrassia S., 2010, Constrained monotone EM algorithms for mixtures of multivariate  $t$ -distributions, *Statistics and Computing*, 20, 1, 9–22.
39. Greselin F., Puri M.L., Zitikis R., 2009, L-functions, processes, and statistics in measuring economic inequality and actuarial risks, *Statistics and Its Interface*, 2, 227–245.
40. Greselin F., Pasquazzi L., 2009, Asymptotic Confidence Intervals for a New Inequality Measure, *Communications in Statistics - Simulation and Computation*, 38, 8, 1742–1756.
41. Greselin F., Pasquazzi L., 2008, Minimum sample sizes in asymptotic confidence intervals for Gini's inequality measure, *Statistica & Applicazioni*, 6, 2, 99–116.
42. Greselin F., Maffinini W., 2007, Minimum sample sizes for confidence intervals for Gini's mean difference: a new approach for their determination, *Statistica & Applicazioni*, 5, 1, 103–122. Permalink: <http://digital.casalini.it/10.1400/209579>
43. Greselin F., Zenga M., 2006, Convergence of the Sample Mean Difference to the normal distribution: simulation results, *Statistica & Applicazioni*, 4, 1, 97–120.
44. Greselin F., 2006, Dependence measures based on partial and total orderings, *Statistica & Applicazioni*, 4, 2, 3–25.
45. Greselin F., Zenga M., Poliscchio M., 2004, The variance of Gini's mean difference and its estimators, *Statistica*, 3, 455–475.

46. Greselin F., Zenga M., 2004, A partial ordering of dependence for contingency tables, *Statistica & Applicazioni*, 2, 53–71.
47. Greselin F., Zenga M., 2004, Partial and total orderings of dependence on tables with given margins, *Quaderni di Statistica*, 6, 129–155 (available at <https://www.labstat.it/home/wp-content/uploads/2015/03/Greselin.pdf>).
48. Greselin F., 2003, Counting and enumerating frequency tables with given margins, *Statistica & Applicazioni*, 1, 2, 87–104.
49. Greselin F., 1997, Valutazione approssimata della distorsione dello stimatore  $\hat{R}$  nella distribuzione di Pareto, *Quaderni di Statistica e Matematica Applicata alle Scienze Economico-Sociali*, 19, 3, 269–279.
50. Bellassai, G., Cernuzzi, L., Greselin, F., 1993, Teaching software engineering for the development of Paraguay, In: *Software Engineering Education*. Elsevier, 129–134.

#### BOOKS, EDITORSHIP AND CURATORSHIPS

51. Cazzaro M., Greselin F., *Modelli statistici per l'analisi di problemi economici e finanziari. with Mylab platform, eText and online updates*, 138 pages, Pearson Italy - Milano, ISBN 9788891903419
52. Greselin F., Mola F., Zenga Ma. Editors, *Cladag 2017 Book of Short Papers*, eBook, Universitas Studiorum, ISBN: 978-88-99459-71-0, [http://www.universitas-studiorum.it/1/cladag\2017\\\_book\\\_of\\\_short\\\_papers\\\_2852494.html](http://www.universitas-studiorum.it/1/cladag\2017\_book\_of\_short\_papers\_2852494.html)
53. Greselin F., Deldossi L., Bagnato L. and Vichi M. Editors, *Statistical Learning of Complex Data*, Springer Series “Studies in Classification, Data Analysis, and Knowledge Organization” ISBN 978-3-030-21140-0, <https://www.springer.com/gp/book/9783030211394> DOI: 10.1007/978-3-030-21140-0
54. Porzio G.C., Greselin F. and Balzano S. Editors, *Book of short papers Cladag2019*, Centro Editoriale di Ateneo Università di Cassino e del Lazio Meridionale, Cassino (Italy), ISBN: 978-88-8317-108-6

#### PUBLICATIONS IN VOLUMES WITH ISBN

55. Brazauskas, V., Greselin, F., Zitikis, R., Median-Based Inequality Measures. In: Pollice, A., Mariani, P. (eds) Methodological and Applied Statistics and Demography III. SIS 2024. Italian Statistical Society Series on Advances in Statistics. Springer, Cham. [https://doi.org/10.1007/978-3-031-64431-3\\_47](https://doi.org/10.1007/978-3-031-64431-3_47)
56. Di Vincenzo D., Greselin F., Piacenza F., Zitikis R., A Tweet Data Analysis for Detecting Emerging Operational Risks. In: Corazza, M., Gannon, F., Legros, F., Pizzi, C., Touzè, V. (eds) Mathematical and Statistical Methods for Actuarial Sciences and Finance. MAF 2024. Springer, Cham. [https://doi.org/10.1007/978-3-031-64273-9\\_23](https://doi.org/10.1007/978-3-031-64273-9_23)
57. Greselin F. and Zaccaria G., Handling missing data in complex phenomena: an ultrametric model-based approach for clustering, pp.961–966, in *Book of the Short Papers - SIS 2023*, Pearson Eds., 2023, ISBN: 9788891935618.
58. Cappozzo A., García-Escudero L.A., Greselin F., Mayo-Isar A., Monitoring Tools in Robust CWM for the Analysis of Crime Data, in Building Bridges between Soft and Statistical Methodologies for Data Science, pp 65–72, vol 1433 of the Springer series *Advances in Intelligent Systems and Computing*, Springer, doi:10.1007/978-3-031-15509-3, ISBN: 978-3-031-15508-6
59. Denti F., Cappozzo A., Greselin F., Outlier and Novelty Detection for Functional Data: a Semiparametric Bayesian Approach, pp. 42 *Classification and Data Science in the Digital Age - Book of Abstracts IFCS 2022* Printed by Instituto Nacional de Estadística ISBN: 978-989-98955-9-1
60. Cappozzo A., García-Escudero L.A., Greselin F., Mayo-Isar A., Monitoring Hyperparameter Choice for Robust Cluster Weighted Model, pp. 105 *Classification and Data Science in the Digital Age - Book of Abstracts IFCS 2022* Printed by Instituto Nacional de Estadística ISBN: 978-989-98955-9-1
61. Comotti A. and Greselin F., Robustifying the Rasch model with the forward search, *SIS2022 Book of the Short Papers*, Balzanella A., Bini M., Cavicchia C. and Verde R. Editors, pp.1693-1698, Pearson Ed., ISBN 9788891932310
62. Cappozzo A., García-Escudero L.A., Greselin F., Mayo-Isar A., Exploring solutions via monitoring for cluster weighted robust models, *CladAG 2021 Book of Abstracts and Short papers*, Firenze University Press, 2021, G.C. Porzio, C. Rampichini, and C. Bocci Editors, pp. 284–287, doi:10.36253/978-88-5518-340-6, e-ISBN: 978-88-5518-340-6
63. Greselin F. and Jędrzejczak A. Quantifying the impact of covariates on the gender gap measurement: an analysis based on EU-SILC data from Poland and Italy, *CladAG 2021 Book of Abstracts and Short papers*, Firenze University Press, 2021, G.C. Porzio, C. Rampichini, and C. Bocci Editors, pp. 108–111, doi:10.36253/978-88-5518-340-6, e-ISBN: 978-88-5518-340-6
64. Cappozzo A., Duponchel L., Greselin F., Murphy T., Robust classification of spectroscopic data in agri-food: first analysis on the stability of results, *CladAG 2021 Book of Abstracts and Short papers*, Firenze University Press, 2021, G.C. Porzio, C. Rampichini, and C. Bocci Editors, pp. 49–52, doi:10.36253/978-88-5518-340-6, e-ISBN: 978-88-5518-340-6

65. Denti F., Cappozzo A., and Greselin F., 2021, Outlier and novelty detection for Functional data: a semi-parametric Bayesian approach, in *Short Papers in Models and Learning in Clustering and Classification*, S. Ingrassia, A. Punzo, R. Rocci Editors, pp. 33–38, LEDIPublishing, ISBN: 9788855265393.
66. Cappozzo A., and Greselin F., Monitoring tools for Cluster Weighted Robust Models, in *Short papers SIS 2021*, Pearson Eds., 2021, pp. 1245–1250, C. Perna, N. Salvati and F. Schirripa Spagnolo Editors, ISBN 9788891927361
67. Cappozzo A., Greselin F., and Murphy B., Robust Model-Based Learning to Discover New Wheat Varieties and Discriminate Adulterated Kernels in X-Ray Images in *Statistical Learning and Modeling in Data Analysis* Springer Berlin Heidelberg, 2021, pp. 29–36. Springer Series “Studies in Classification, Data Analysis, and Knowledge Organization”, S. Balzano, G.C. Porzio, R. Salvatore, D. Vistocco, M. Vichi Editors, ISBN: 978-303069943-7 <https://link.springer.com/book/10.1007/978-3-030-69944-4>
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69. Cappozzo A., Greselin F., and Murphy B., Variable selection for robust model-based learning from contaminated data, in *Book of short Papers SIS 2020*, Milan: Pearson, 2020, pp. 1117–1120, A. Pollice, N. Salvati and F. Schirripa Spagnolo Editors, ISBN: 9788891910776
70. Cappozzo A., Greselin F., and Murphy B., Supervised learning in presence of outliers, label noise and unobserved classes, in: *Book of short papers Cladag2019*, 2019, Centro Editoriale di Ateneo Università di Cassino e del Lazio Meridionale, pp. 104–107, G. Porzio, F. Greselin and S. Balzano Eds., ISBN: 978-88-8317-108-6
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72. Cappozzo A., and Greselin F., Detecting wine adulterations employing robust mixture of factor analyzers, in: *Statistical Learning of Complex Data*. Springer Berlin Heidelberg, 2019, pp. 13–21. Springer Series “Studies in Classification, Data Analysis, and Knowledge Organization”, ISBN: 978-3-030-21140-0, <https://www.springer.com/gp/book/9783030211394>
73. García-Escudero L.A., Greselin F., Mayo-Iscar A., Extending robust fuzzy clustering to skew data, *CFE-CMStatistics 2018 Book of Abstracts*, p. 26, London. Technical Editors: A. Colubi, E.J. Kontoghiorghe and H.K. Van Dijk, 2018, ISBN: 978-9963-2227-5-9.
74. Cappozzo, A., Greselin F., Murphy T., The role of trimming and variable selection in robust model-based classification for food authenticity studies, in *COMPSTAT 2018 Book of Abstracts*, p. 35, COMPSTAT 2018 and CRoNoS FDA 2018, Ana Colubi and Cristian Gatu Editors, ISBN: 978-9963-2227-3-5
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77. García-Escudero L.A., Greselin F., Mayo-Iscar A., McLachlan G., Advances in robust estimation of skew normal mixtures, *CFE-CMStatistics 2017 Book of Abstracts*, p. 120, London. Technical Editors: G. Gonzalez-Rodriguez and M. Hofmann, 2017, ISBN: 978-9963-2227-4-2
78. García-Escudero L.A., Gordaliza A., Greselin F., Ingrassia S. and Mayo-Iscar, A. To get the best, tame the beast: constrained ML estimation for mixture models, *Book of abstracts for the “III International Workshop on Proximity Data, Multivariate Analysis and Classification”*, 2017, ISBN: 978-84-697-7418-2
79. García-Escudero L.A., Gordaliza A., Greselin F., Mayo-Iscar A., Robust approaches for fuzzy clusterwise regression based on trimming and constraints, *The Mathematics of the Uncertain*, Eduardo Gil, Eva Gil, Juan Gil and María Angeles Gil Editors, Springer Series: Studies in Systems, Decision and Control, vol 142, Springer International Publishing, 2017, ISBN: 978-3-319-73847-5
80. García-Escudero L.A., Greselin F., Mayo-Iscar A., New proposal for clustering based on trimming and restrictions, *Cladag 2017 Book of Short Papers*, Editors F. Greselin, F. Mola and M.A. Zenga, Universitas Studiorum S.r.l., 2017, ISBN: 978-88-99459-71-0
81. Cappozzo A., Greselin F., Wine authenticity assessed via trimming, *Cladag 2017 Book of Short Papers*, Editors F. Greselin, F. Mola and M.A. Zenga, Universitas Studiorum S.r.l., 2017, ISBN: 978-88-99459-71-0
82. García-Escudero L.A., Greselin F., Mayo-Iscar A., Fuzzy clustering through robust factor analyzers, *Soft Methods for Data Science*, Advances in Intelligent Systems and Computing, vol 456, Springer, Eds. M.B. Ferraro, P. Giordani, B. Vantaggi, M. Gagolewski, M. Á. Gil, P. Grzegorzewski, and O. Hryniewicz, pp.229–235, 2016, ISBN: 978-3-319-42972-4



83. García-Escudero L.A., Greselin F., Mayo-Iscar A., McLachlan G., Robust estimation of mixtures of Skew Normal Distributions, *Proceedings of the 48th Scientific Meeting of the Italian Statistical Society*, Eds. M. Pratesi and C. Perna, Dipartimento di Scienze Economiche e Statistiche (publisher), Fisciano (SA, Italy), 2016, ISBN: 9788861970618
84. García-Escudero L.A., Greselin F., Mayo-Iscar A., McLachlan G., Robust estimation of mixture models with skew components via trimming and constraints, *CFE-CMStatistics 2016 Book of Abstracts*, p. 6, Sevilla. Technical Editors: A. Blanco-Fernandez and G. Gonzalez-Rodriguez, 2016, ISBN: 978-9963-22271-1
85. García-Escudero L.A., Greselin F., Mayo-Iscar A., A fuzzy version of robust mixtures of Gaussian factor analyzers, *CFE-CMStatistics 2016 Book of Abstracts*, p. 5, Sevilla. Technical Editors: A. Blanco-Fernandez and G. Gonzalez-Rodriguez, 2016, ISBN: 978-9963-22271-1
86. García-Escudero L.A., Greselin F., Mayo-Iscar A., McLachlan G., Robust estimation for mixtures of skew data, *Proceedings of the 8th International Conference of the ERCIM WG on Computing & Statistics (CM-Statistics 2015)*, 2015, ISBN: 978-9963-2227-0-4
87. García-Escudero L.A., Gordaliza A., Greselin F., Ingrassia S., Mayo-Iscar A., Robust estimation for mixtures of Gaussian factor analyzers, *Proceedings of the 8th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2015)*, 2015, ISBN: 978-9963-2227-0-4
88. García-Escudero L.A., Greselin F., Mayo-Iscar A., Robust clustering for heterogenous skew data, *Book of Abstracts*, 10th International Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, CUEC Editrice by Sardinia Novamedia, Cagliari, 2015, ISBN: 978-88-8467-949-9
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91. Greselin F., Ingrassia S., Data-driven EM constraints for Gaussian mixtures of factor analyzers, *Book of Abstracts*, 9th International Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, Cleup Eds., Modena (Italy), p. 245–248, 2013, ISBN: 978 88 6787 117 9
92. Greselin F., Ingrassia S., Market segmentation via mixtures of constrained factor analyzers, *Advances in Latent Variables*, Eds. Brentari E., Carpita M., Vita e Pensiero, Milan (Italy), 8 pages, 2013, ISBN: 978 88 343 2556 8
93. Greselin F., Ingrassia S., Constrained EM algorithms for Gaussian mixtures of factor analyzers, *Proceedings of the 5th International Conference of the ERCIM WG on Computing & Statistics (ERCIM'12)*, Oviedo (Spain), 2012, ISBN: 978 84 937822 2 1
94. Greselin F., Punzo A., Closed Likelihood-Ratio Testing Procedures to Assess Similarity of Covariance Matrices, *Proceedings of the 46th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Rome (Italy), 2012, ISBN: 978 88 6129 882 8
95. Greselin F., Pasquazzi L., Zitakis R., Capital income inequality: evidences from ECHP data, *Proceedings of the 46th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Rome (Italy), 2012, ISBN: 978 88 6129 882 8
96. Corbett B., Greselin F., Pasquazzi L., Zitakis R., Williams R. Not all measures of income inequality are equal: A comparison between the Gini and the Zenga, *Proceedings of the International Interdisciplinary Conference*, IISES Eds., Palermo (Italy), 2012, ISBN: 978-80-905241-0-1
97. Bagnato L., Greselin F., Model-based clustering and classification via patterned covariance analysis, *Book of Short Papers of the 8th International Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, ClaDAG 2011*, Pavia University Press, Pavia (Italy), 2011, 4 pages, ISBN: 978-88-96764-22-0
98. Greselin F., Pasquazzi L., Dagum Confidence intervals for inequality measures, *Proceedings of the 45th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Padua (Italy), 2010, ISBN: 978-88-6129-566-7
99. Greselin F., Pasquazzi L., Zitakis R., Asymptotic theory for Zenga's new index of economic inequality, *Proceedings of the 45th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Padua (Italy), 2010, ISBN: 978-88-6129-566-7
100. Greselin F., Ingrassia S., Weakly homoscedastic constraints for mixtures of  $t$ -distributions, *Advances in Data Analysis, Data Handling and Business Intelligence*, A.Fink, B.Lausen, W.Seidel and A.Ultsch editors, Springer Berlin Heidelberg, 2010, p. 219–228, DOI 10.1007/978-3-642-01044-6-20, ISBN: 978-3-642-01044-6
101. Greselin F., Ingrassia S., Punzo A., Multivariate tests for patterned covariance matrices, *Book of Short Papers of Cladag 2009*, Cleup Eds., Padova (Italy), 2009, p. 529–532, ISBN: 978-88-6129-406-6
102. Greselin F., Pasquazzi L., Asymptotic Confidence Intervals for a New Inequality Measure, *Proceedings of the 44th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Padua (Italy), 2008, ISBN: 978-88-6129-228-4

103. Greselin F., Pasquazzi L., Minimum Sample Sizes in Asymptotic Confidence Intervals for Gini's Concentration Index, *ISI 2007 Book of abstract*, M.I. Gomes, D. Pestana, P. Silva. Eds, CEAUL INE and ISI, Lisbon (Portugal), 2007, ISBN: 978-972-8859-71-8
104. Greselin F., New results on a partial ordering of dependence, *Classification and Data Analysis*, S. Zani and A. Cerioli editors, MUP ed., Parma (Italy), 2005, p. 377–380, ISBN: 978-88-7847-066-8
105. Greselin F., Zenga M., Measures of association in the Fréchet class, *Proceedings of the 41th Scientific Meeting of the Italian Statistical Society*, Cleup Eds., Milan (Italy), 2002, p. 33–36, ISBN: 88-7178-589-4
106. Greselin F., Bellassai G., Cernuzzi L., Teaching Software Engineering for the development of Paraguay, *Proceedings of the IFIP WG3.4/SEARCC (SRIG on Education and Training)*, Hong Kong, North Holland, 1993, p. 129–134, ISBN: 0-444-81597-X

## ALL TALKS IN SCIENTIFIC MEETINGS AND WORKSHOPS

1. **Plenary speaker** at the 42nd Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), 4-6 November 2024. Title of the talk: *Studying hierarchical latent structures in heterogeneous populations with missing information*
2. Speaker at the European Conference on Data Analysis, Gdansk (Poland), September 9-11, 2024. Title of the talk: *Operational Risk mitigation utilizing statistical models and social media for early event detection*.
3. Speaker at the 52nd Scientific Meeting of the Italian Statistical Society, SIS2024, Bari (Italy), June 17-20, 2024. Title of the talk: *Median-based inequality measures*.
4. Speaker at the Data Analysis and Statistical Modeling Conference, Benevento (Italy), February 5-7, 2024. Title of the talk: *Model-based clustering with cellwise outlier detection*.
5. **Plenary speaker** at the 41st Conference on Multivariate Statistical Analysis, Lodz (Poland), November 6-8, 2023. Title of the talk: *Measuring income inequality via percentile relativities*.
6. **Plenary speaker** at the 14th Scientific Meeting of the Classification and Data Analysis Group, Salerno (Italy), September 11-13, 2023. Title of the talk: *To get the best, tame the "beast": robust ML estimation for mixture models*.
7. Speaker at the Workshop "Tackling Inequality: Challenges, Research, and Policies", University of Milan-Bicocca, April 14, 2023. Title of the talk: *Measuring income inequality via percentile relativities*.
8. Speaker at the Conference of European Statistics Stakeholders 2022, CESS2022, Rome (Italy), October 20-21, 2022. Title of the talk: *A new parametric approach to Gender Gap with application to EUSILC data in Poland and Italy*.
9. Speaker at 10th International Conference on Soft Methods in Probability and Statistics, SMPS2022, Valladolid (Spain), September 14-16, 2022. Title of the talk: *Monitoring tools in Robust CWM for the analysis of crime data*.
10. Speaker at the 6th Workshop on Models and Learning in Clustering and Classification, MBC2, Catania (Italy), Aug. 31 - Sept 2, 2022. Title of the talk: *Monitoring the robust Cluster-Weighted model*.
11. Speaker at the 17th conference of the International Federation of Classification Societies, IFCS2022, Porto (Portugal), July 19-23, 2022. Title of the talk: *Monitoring Hyperparameter Choice for Robust Cluster Weighted Model*.
12. Speaker at the 51st Scientific Meeting of the Italian Statistical Society, SIS2022, Caserta (Italy), June 22-24, 2022. Title of the talk: *Robustifying the Rasch model with the Forward Search*.
13. Speaker at the 15th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 9-12, 2022, organised by the Department of Statistics at Cracow University of Economics and the Committee of Statistics and Econometrics of the Polish Academy of Sciences. Title of the talk: *Assessing Psychometric Scales through IRT-based Modeling, with Applications to Covid-19 Data*.
14. **Invited speaker** at the Session "Advances in robust cluster analysis" at the 13th Scientific Meeting of the Classification and Data Analysis Group, Florence (Italy), September 9-11, 2021. Title of the talk: *Robust classification of spectroscopic data in agri-food: a first analysis on the stability of results*.
15. Speaker at the 51th Scientific Meeting of the Italian Statistical Society (SIS 2021), June 21-25, 2021, Florence (Italy). Title of the talk: *Monitoring tools for robust estimation of Cluster weighted models*.
16. **Plenary speaker** at the 14th International Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 10-13, 2021, organised by the Department of Statistics at Cracow University of Economics and the Committee of Statistics and Econometrics of the Polish Academy of Sciences. Title of the talk: *Robust dimension reduction for classification of spectroscopic data in agri-food*.
17. **Plenary speaker** at the 38th Scientific Conference on Multivariate Statistical Analysis, Lodz (Poland), November 4-6, 2019. Title of the talk: *Advances in learning from contaminated datasets*.
18. **Invited speaker** at the Session "Modelling and Clustering Complex Data" organized by Geoffrey McLachlan at the 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019), Senate House, University of London (UK), 14-16 December 2019. Title of the talk: *Robust and efficient estimates of partition and model parameters: a step beyond the usual normality assumption*.
19. **Invited speaker** at the Conference "Stochastic Geometry", Saint-Petersburg (Russia) <https://www.geometry2019.com/September> September 16-20, 2019, sponsored by the Euler Mathematical Institute & Chebyshev Laboratory of St. Petersburg State University <https://www.geometry2019.com/participants>. Title of the talk: *Inferential results for a new inequality curve*.
20. **Invited speaker** at the 16th Conference of the International Federation of Classification Societies, August 26-29, 2019, Thessaloniki (Greece) within the Invited Session "Classification methods in economics and business". Title of the talk: *Fuzzy clustering with skew components, with applications in Economics and Business*.

21. **Invited speaker** at the 13th International Scientific Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 13-16, 2019. Title of the talk: *Robust fuzzy clustering for skew socio-economic data*.
22. **Invited speaker** at the 11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018), December 14-16, 2018, Pisa (Italy), within the session “Supervised and Unsupervised Learning”. Title of the talk: *Extending robust fuzzy clustering to skew data*.
23. **Speaker** at MBC2 International workshop on Model-Based Clustering and Classification, Catania (Italy), September 5-7, 2018. Title of the talk: *Exploring robust fuzzy clustering on multivariate skew data* <http://mbc2.unict.it/program3.shtml>
24. **Invited speaker** at CompSTAT 2018, Iasi (Romania), August 28-31, 2018, within the session “CO068: Soft clustering” (<http://www.compstat2018.org/organized.php>). Title of the talk: *Fuzzy clustering for heterogenous skew data*.
25. **Invited speaker** at the 49th Scientific Meeting of the Italian Statistical Society (SIS 2018), June 20-22, 2018, Palermo (Italy), within the Solicited Session on “New perspectives in supervised and unsupervised classification”. Title of the talk: *Robust Updating Classification Rule, with applications in Food Authenticity Studies*.
26. **Plenary speaker** at the 19th International Scientific Conference on Quantitative Methods in Economics (QME), Warsaw (Poland), June 18-19, 2018, Title of the talk: *Analyzing and comparing gender gap in Poland and Italy* <http://mibe.sggw.pl/en/>
27. **Invited speaker** at the XXXVII Congreso Nacional de Estadística e Investigación Operativa y de las XI Jornadas de Estadística Pública, Oviedo (Spain), May 29-June 1st, 2018. Title of the talk: *Advances in robust estimation of skew normal mixtures: addressing the issue of truncated moments*.
28. **Plenary speaker** at the 12th International Scientific Conference on Modelling and Forecasting of Socio-Economic Phenomena, Zakopane (Poland), May 8-10, 2018. Title of the talk: *Robust clustering methods for multivariate socio-economic data*.
29. **Invited speaker** at the 10th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2017), December 16-18, 2017, Senate House, University of London (UK), “Session EO232: Clustering/classification and mixtures I”. Title of the talk: *Advances in robust estimation of skew normal mixtures*.
30. **Plenary speaker** at the III International Workshop on Proximity Data, Multivariate Analysis and Classification, Valladolid (Spain), October 26-27, 2017. Title of the talk: *To get the best, tame the beast: constrained ML estimation for mixture models* <http://www.eio.uva.es/wamyc/program.html>
31. **Invited speaker** at the Summer Session of the Working Group on Model-Based Clustering, Perugia (Italy), July 17-21, 2017. Title of the talk: *New developments on robust estimation for mixtures* <http://w3.mi.parisdescartes.fr/~cbouveyr/WGMB17.html>
32. **Speaker** at the Classification Society Conference, UC Santa Cruz at the Silicon Valley campus in Santa Clara, Santa Clara (USA), June 21-24, 2017. Title of the talk: *Robust parsimonious mixture models for fuzzy clustering*.
33. **Invited speaker** in the Session “EO115: Mixture models for complex data sets”, 9th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2016), Sevilla (Spain), December 9-11, 2016. Title of the talk: *A fuzzy version of robust mixtures of Gaussian factor analyzers*.
34. **Invited speaker** at the Conference on Multivariate Statistical Analysis MSA 2016, Lodz (Poland), November 6-9, 2016. Title of the talk: *Parsimonious and robust clustering*.
35. **Invited speaker** in the Session “Robust statistics”, Soft Methods in Probability and Statistics SMPS2016, Rome (Italy), September 12-14, 2016. Title of the talk: *Fuzzy clustering through robust factor analyzers*.
36. **Invited speaker** in the Session “Robust estimation in model-based clustering”, MBC2 Workshop on Model-Based Clustering and Classification, Catania (Italy), September 5-7, 2016. Title of the talk: *Robust estimation in model-based clustering*.
37. **Invited speaker** in the Session “CI083: Recent developments in mixture models”, 22th International Conference on Computational Statistics COMPSTAT 2016, Oviedo (Spain), August 23-27, 2016. Title of the talk: *Robust clustering of multivariate skew data*.
38. **Speaker** at the 48th Scientific Meeting of the Italian Statistical Society, Salerno (Italy), June 8-10, 2016. Title of the talk: *Robust estimation of mixtures of Skew Normal Distributions*.
39. **Invited speaker** in the Specialized Session “EO190, Advances in mixture modelling”, 8th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2015), London (UK), December 12-14, 2015. Title of the talk: *Robust estimation for mixtures of skew data*.
40. **Speaker** at the 10th Scientific Meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society, Cagliari (Italy), October 8-10, 2015. Title of the talk: *Robust clustering for heterogenous skew data*.

41. **Invited speaker** in the Specialized Session SP4: “Mixture models: Recent Developments and Applications for Unsupervised and Supervised Classification”, Conference of the International Federation of Classification Societies (IFCS), Bologna (Italy), July 6-8, 2015. Title of the talk: *The joint role of trimming and constraints for robust estimation for mixtures of skew normal*.
42. Speaker at IBS Joint meeting of the International Biometric Society (IBS) Austro-Swiss and Italian Regions, Milan (Italy), June 16-18, 2015. Title of the talk: *A joint application of trimming and constraints for robustifying the estimation of mixtures of factor analyzers*.
43. **Invited speaker** in Session “ES89: Robust statistics in R”, 7th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2014), 2014, Pisa (Italy), December 6-8, 2014. Title of the talk: *Robust model estimation, through trimming and constraints, for mixtures of factor analyzers*.
44. Speaker at AISC 2014, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC (USA), October 10-12, 2014. Title of the talk: *Robust mixtures of factor analyzers via the trimming approach*.
45. Speaker at MBC2 - International Workshop on Model Based Clustering and Classification, Catania (Italy), September 3-5, 2014. Title of Lightening talk for poster presentation: *Robust mixtures of factor analyzers*.
46. **Invited speaker** at the International Conference on Statistics (sponsored by the American Statistical Association), Flint, Michigan (USA), June 23-28, 2014. Title of the talk: *Measuring Inequality at the time of the Great Divergence*.
47. **Invited speaker** in the Solicited Session “SL13 - Computations With Intractable Likelihood”, 47th Scientific Meeting of the Italian Statistical Society, Cagliari (Italy), June 10-14, 2014. Title of the talk: *An adaptive method to robustify ML estimation in Cluster Weighted Modeling*.
48. **Invited speaker** in Session “ES28: Advances in robust data analysis” at the 6th International Conference of the ERCIM WG on Computing & Statistics (CMStatistics 2013), London (UK), December 14-16, 2013. Title of the talk: *A robust approach to Cluster Weighted Modeling*.
49. Speaker at Statistical Methods for Evaluation IES 2013 - Innovation and Society 2013, Milan (Italy), December 9-10, 2013. Title of the talk: *A latent variable model for market segmentation*.
50. Speaker at Arbeitsgruppe Datenanalyse und numerische Klassifikation (AD DANK) and British Classification Society (BCS) Meeting, UCL London (UK), November 8-9, 2013. Title of the talk: *Data driven constraints for Gaussian mixtures of factor analyzers: an application to market segmentation*.
51. Speaker at 9th Scientific Meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society, Modena (Italy), September 18-20, 2013. Title of the talk: *Data driven EM constraints for mixtures of factor analyzers*.
52. **Invited speaker** in Session “Latent variable models for marketing research” at the Italian Statistical Society 2013 Conference: Advances in Latent Variables - Methods, Models and Applications, Brescia (Italy), June 19-21, 2013. Title of the talk: *Market segmentation via mixtures of constrained factor analyzers*.
53. **Invited speaker** in Session “EUC 55: Statistical Modeling and Inference in Economics And Insurance”, AISC 2012, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, October 5-7, 2012, Greensboro, NC (USA). Title of the talk: *Unequal perspectives on inequality: a comparison among the evergreen Gini and the new Zenga indices*.
54. Speaker at MBC2 - International Workshop on Model Based Clustering and Classification, Catania (Italy), September 5-7, 2012. Title of the poster: *Constrained EM algorithms for Gaussian mixtures of factor analyzers*.
55. Speaker at 46th Scientific Meeting of the Italian Statistical Society, Rome (Italy), June 20-22, 2012. Title of the talk: *Closed Likelihood-Ratio Testing Procedures to Assess Similarity of Covariance Matrices*.
56. Speaker at 46th Scientific Meeting of the Italian Statistical Society, Rome (Italy), June 20-22, 2012. Title of the talk: *Capital income inequality: evidences from ECHP data*.
57. Speaker at International Interdisciplinary Conference organized by the International Institute of Social and Economic Sciences, Palermo (Italy), April 16-18, 2012. Title of the talk: *Not all measures of income inequality are equal: A comparison between the Gini and the Zenga*.
58. **Invited speaker** in Session “New Trends in Measuring Inequality” at the 45th Annual Conference of the Canadian Economics Association, Ottawa (Canada), June 2-5, 2011. Title of the talk: *The Zenga inequality measure: statistical inference on capital income survey data*.
59. Speaker at International Workshop on New results and perspectives on inequality and poverty, Milan (Italy), 2011. Title of the talk: *Estimating Gini’s and Zenga’s inequalities on the ECHP dataset*.
60. Speaker at Seventh Scientific Meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society, Catania (Italy), September 9-11, 2009. Title of the talk: *Multivariate tests for patterned covariance matrices*.
61. Speaker at Workshop on Income Distribution, Second Meeting, University of Milano Bicocca - Milan (Italy), 2009. Title of the talk: *Asymptotic Confidence Intervals for a New Inequality Measure*.

62. Speaker at GfKl 2008: 32nd Annual Conference of the German Classification Society, Joint Conference with the British Classification Society (BCS) and the Dutch/Flemish Classification Society (VOC), Hamburg, (Germany), July 16-18, 2008. Title of the talk: *A Note on Constrained EM Algorithms for Mixtures of Elliptical Distributions*. <http://gfk12008.hsu-hh.de/>
63. Speaker at Sixth Scientific Meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society, Macerata (Italy), September 12-14, 2007. Title of the talk: *Constrained monotone EM algorithms for mixtures of multivariate t-distribution*.
64. Speaker at International conference in memory of two eminent social scientists: C. Gini and M. O. Lorenz, Certosa di Pontignano, Siena (Italy), May 23-26, 2006. Title of the talk: *Convergence of the Sample Mean Difference to the normal distribution*. <http://www3.unisi.it/eventi/GiniLorenz05/programme26.htm>
65. Speaker at International conference in memory of two eminent social scientists: C. Gini and M. O. Lorenz, Certosa di Pontignano, Siena (Italy), May 23-26, 2006. Title of the talk: *Confidence Intervals for Gini's Mean Difference: simulation results*. <http://www3.unisi.it/eventi/GiniLorenz05/programme24.htm>
66. Speaker at Fifth Scientific Meeting of the CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society, Parma (Italy), June 6-8, 2005. Title of the talk: *New results on a partial ordering of dependence*.
67. Speaker at 41th Scientific Meeting of the Italian Statistical Society, Milan (Italy), 2002. Title of the talk: *Measures of association in the Fréchet class*.
68. Speaker at IFIP WG3.4/SEARCC (SRIG on Education and Training), 1993. Title of the talk: *Teaching Software Engineering for the development of Paraguay*.
69. Speaker at XVII Conferencia Latinoamericana de Informática, Caracas (Venezuela), 1991. Title of the talk: *Creación de la carrera de Ingeniería Informática en la Universidad Católica de Asunción*, published in *Proceedings of the XVII Conferencia Latinoamericana de Informática*, 12 pp.
70. Speaker at XVI Conferencia Latinoamericana de Informática, Asunción (Paraguay), 1990. Title of the talk: *Curriculum in Computer Science and Electronic Engineering*, published in *Proceedings of the XVI Conferencia Latinoamericana de Informática*, 23 pp.
71. Speaker at XVI Conferencia Latinoamericana de Informática, Asunción (Paraguay), 1990. Title of the talk: *Petri nets as Informal Knowledge Engineering solution*, published in *Proceedings of the XVI Conferencia Latinoamericana de Informática*, 459–477.
72. Speaker at XVI Conferencia Latinoamericana de Informática, Asunción (Paraguay), 1990. Title of the talk: *Electroencefalografía con microcomputadora*, published in *Proceedings of the XVI Conferencia Latinoamericana de Informática*, 671–677.
73. Speaker at XIV Conferencia Latinoamericana de Informática, Buenos Aires (Argentina), 1988. Title of the talk: *Hypermedia: nuevas herramientas para el conocimiento*, published in *Proceedings of the XIV Conferencia Latinoamericana de Informática*, Buenos Aires (Argentina), 1988, 13 pp.
74. Speaker at XIII Conferencia Latinoamericana de Informática, Bogotá (Colombia), 1987. Title of the talk: *Los conjuntos difusos en la modelización lingüística*, published in *Proceedings of the XIII Conferencia Latinoamericana de Informática*, 150–159.