



UNICA

UNIVERSITÀ
DEGLI STUDI
DI CAGLIARI

Curriculum of Teaching and Scientific Activities

Maurizio Romano

Indice

Academic Positions	2
Research Interests	3
ASN	3
Education	3
Specialization Courses	4
Memberships	5
Grant Project Memberships	5
Scientific committee membership	6
Visiting Positions	6
Publications in Peer-Reviewed Journals	7
Book Chapters	7
Conference Proceedings	8
Publications in Peer-Reviewed Journals (submitted)	9
Ph.D. Thesis	10
Working papers	10
Software (R packages)	10
Conference Presentations (international)	10
Conference Presentations (national)	11
Seminars	11
Referee service	11
Honors and Awards	12
Research Funding	12
Teaching Experience	12
Member of the Master's degree graduation session committee	14
Supervisor of Master's degree thesis	14
Professional Experience	16
Third Mission and Public Engagement	16
Other Institutional Activities	16
Technical Skills	17

ACADEMIC POSITIONS

University of Cagliari, Italy

Assistant Professor – Type A (ssd SECS-S/01 – Statistics)

Development and implementation of multivariate statistical methods and modern statistical learning methods with high computational complexity for digital transformation and sustainable mobility. Scientific area: 13 – Economic and statistical sciences. Competition sector: 13/D1 - Statistics. PNRR Project e.INS Ecosystem of Innovation for Next Generation Sardinia - SPOKE 6 - CUP F53C22000430001 – MUR code: ECS00000038. Scientific Supervisor: Prof. C. Conversano.
Department of Business and Economics **Oct 2023 – pres**

Post-doc (ssd SECS-S/01 – Statistics)

“Statistical Learning Methods for Text Data Analysis”. Specification and implementation of new supervised or unsupervised statistical learning methods for text data analysis. MUR - Prog. Dipartimenti di Eccellenza (Prot. 1.005.14/2019). Scientific Coordinator: Prof. C. Conversano.
Department of Business and Economics **Jan 2022 – Oct 2023**

Early stage researcher. Industrial Research and Experimental Development Program “Data Mining, Statistical Analysis, and Predictive Modeling on Sea Accidents” related to the project ISIDE: Innovazione per la Sicurezza DEL mare. Funded by the Interreg Italy France Maritime 2014-2020 cooperation program – III Notice - ‘ISIDE Innovation for Sea Safety’ Project - Axis 2 (CUP F54D18000120006).
Scientific Coordinator: Prof. Gianfranco Fancello.
Department of Business and Economics **July 2021 – Jan 2022**

Early stage researcher. Industrial Research and Experimental Development Program “Data Mining, Statistical Analysis, and Predictive Modeling on Sea Accidents” related to the project OMD: Osservatorio di merci pericolose. Funded by the Interreg Italy France Maritime 2014-2020 cooperation program – III Notice (CUP F14D18000140006). Scientific Coordinator: Eng. Patrizia Serra.
Department of Business and Economics **Mar 2021 – July 2021**

Early stage researcher. Industrial research and experimental development project aimed at the “Implementation of an ICT platform to support the tourism sector”, funded by Regione Autonoma della Sardegna nell’ambito del Bando PIA – Pacchetti Integrati di Agevolazione ‘Industria, Artigianato e Servizi’ (annualità 2013), Programmazione Unitaria 2007/2013 - P.O. FESR 2007/2013. Interventi a sostegno della competitività e dell’innovazione. 48 months. Scientific Coordinator: Prof. Francesco Mola.
Department of Business and Economics **Feb 2017 – Sept 2017**

Ph.D. student For the doctoral program in “Economic and Business Sciences.” Coordinators: Prof. Andrea Melis (until 2018) and Prof. Vittorio Pelligra (since 2019)
Department of Business and Economics **Sept 2017 – Apr 2021**

Contract lecturer For the teaching of “Statistical Learning Methods for Data Science” for the Master’s Degree program in “Economics, Finance, and Public Policies,” 6 ECTS credits (36 hours)
Faculty of Economic, Law, and Political Sciences **Oct 2022 – Oct 2023**

	Contract lecturer For the teaching of “Applied Statistics to Natural Sciences” for the Bachelor’s Degree program in Environmental and Natural Sciences, 6 ECTS credits (48 hours) Faculty of Biology and Pharmacy Sept 2021 – Oct 2022 Contract lecturer for the teaching of “Quantitative Methods for Management” for the Master’s Degree program in Managerial Economics - International Management, 9 ECTS credits (54 hours/academic year) Faculty of Economic, Law, and Political Sciences Oct 2020 – Oct 2022 Academic tutor for the teaching of “Statistical Learning Methods for Data Science” for the Master’s Degree program in ”Data Science, Business Analytics, and Innovation” (36 hours/academic year) Faculty of Economic, Law, and Political Sciences Sept 2022 – Oct 2023 Academic tutor for the teaching of “Statistical Learning Methods for Data Science” for the Master’s Degree program in ”Data Science, Business Analytics, and Innovation” (40 hours) Faculty of Economic, Law, and Political Sciences Oct 2021 – Sept 2022 Academic tutor for the teaching of “Statistical Learning Methods for Data Science” for the Master’s Degree program in ”Data Science, Business Analytics, and Innovation” (40 hours/academic year) Faculty of Economic, Law, and Political Sciences Nov 2017 – Sept 2020
RESEARCH INTERESTS	Natural Language Processing, Classification (Labeled & Unlabeled data), Sentiment Analysis, Big Data, Word Embeddings, Explainable AI, Preference Rankings.
ASN	National Scientific qualification as associate professor in the Italian higher education system, in the call 2023/2025 (Ministerial Decree n. 1796/2023) for the disciplinary field of 13/D1 - Statistics. (Academic Recruitment Field 13/D - Statistics and mathematical methods for decisions, according to the national classification) 3 Nov 2025 – 3 Nov 2037
EDUCATION	University of Cagliari, Italy Dottorato di Ricerca cum Laude Ph.D. in Business and Economics (Statistics, ssd SECS-S/01), defended on April 26th, 2021. It covers the period from September 2017 to April 2021. • Title thesis: General Sentiment Decomposition: opinion mining based on raw Natural Language text • Supervisor: Prof. Claudio Conversano & Prof. Francesco Mola University of Cagliari, Italy English C1 language certification. May 6, 2025. The CLA certification attests an English C1 level, appropriate for fulfilling the academic role. English B2 language certification. December 1, 2022. The CLA English B2 Gold Badge (Test & Speaking) attests, following the assessment of listening, reading, use of English, grammar, and speaking skills, the achievement of a level equivalent to B2 in the English language according to the Common European Framework of Reference (CEFR). It can be used during the university career for selection processes for scholarships and internships abroad, for acquiring ECTS credits, and for accessing selections and competitions that require a B2 level. This certification is issued as a validated Open Badge on the blockchain, and its authenticity can be verified through the following link: openbadges.bestr.it/public/assertions/zkD-1VdNSbyPNjToF9_dQg

M.S., Computer Science, grade 102/110, University of Cagliari, 25 November 2016

- Title thesis: Conversion of RDF representation from FRED Machine Reader to Abstract Meaning Representation (AMR).
- Supervisors: Prof. Diego Angelo Gaetano Reforgiato Recupero & Prof. Gianni Fenu

CCNA2: Routing Protocols and Concepts, CISCO, 13 November 2014

Certification attesting the ability to perform basic configuration and troubleshooting in the field of networking, identify and mitigate threats to LAN network security, and configure and secure a basic WLAN network

CCNA1: Network Fundamentals, CISCO, 13 November 2014

Certification attesting the ability to perform basic configurations of routers and switches to build low-complexity local area networks (LANs) that integrate IP addressing schemes and network security principles.

B.S., Computer Science, grade 100/110, University of Cagliari, 19 September 2014

- Title thesis: An app for the florafaunal monitoring of the Sardinian territory
- Supervisor: Prof. Gianni Fenu

SPECIALIZATION COURSES

Training course at the University of Cagliari, Italy

- “Organization and QA system of a Department” (1 hour), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “The University’s support for inclusion” (1.5 hours), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “Organization and QA system of a Degree Program” (1 hour), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “Notes on *special education* teaching” (1.5 hours), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “Active teaching and problem-based approaches” (2 hours), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “Design and management of a course” (2 hours), CONTINUE DISCENTIA Project, obtained on **July 30, 2025**.
- “The University’s QA system” (2 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “The educational characterization of a Degree Program” (2 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “Organization of teaching units and classroom management” (2 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “Management of student opinion surveys” (2 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “University teaching” (1.5 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “Communicating and teaching” (1.5 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.

- “Online teaching and interaction” (1.5 hours), CONTINUE DISCENTIA Project, obtained on **November 11, 2024**.
- “Development of Teaching Skills” (20 hours), DISCENTIA Project, obtained on **October 29, 2018**.

Robust Statistics Summer School (Como, Italy) May 2 to May 6 **2022**

- Summer School “Robust Statistics: Foundations and Recent Developments”, III International School of Classification and Data Analysis, organized by ClaDAG, Villa del Grumello, Como.

Online oTree Summer School (University of Oxford, UK) June 1 to June 18 **2021**

- “Online oTree Course Summer 2021”, organized by Nuffield Centre for Experimental Social Sciences, University of Oxford.

Urban Computing Spring School (Cagliari, Italy) May 15 to May 22 **2019**

- Spring school “Urban Computing 2019 First spring school of the TDM research and training project”: Introductory Module & Advanced Module, organized by Sardegna Ricerche, CRS4 and University of Cagliari.

Bluemix Technical Workshop (Cagliari, Italy) February **2015**

- 75-hour course “Bluemix Technical Workshop”, organized by IBM Bluemix Ecosystem Development

MEMBERSHIPS

ISI – International Statistical Institute

SIS – Società Italiana di Statistica

y-SIS – young SIS Group of the Italian Statistical Society

CLADAG – Classification and Data Analysis Group of the Italian Statistical Society

SDS-SIS – Statistics and Data Science Group of the Italian Statistical Society

PREFSTAT – PREFERENCE STATistics group on Advanced Statistical Learning for Preference, Ranking, and Ordinal Data

GRANT PROJECT MEMBERSHIPS

Scientific Coordinator of the international research project titled “General Sentiment Decomposition” funded by MGR (Mobilità Giovani Ricercatori) in 2025 to cooperate with the Tokyo Metropolitan University (Japan);

Member of the international research PNRR project, Mission 4 “Education and Research” – Component 1 “Enhancing the provision of education services: from nurseries to universities” – Investment 3.4 “University teaching and advanced skills” – Sub-Investment T3 “Digital Education Hubs (DEH)”, funded by the European Union – Next Generation EU - DEH2023-00010 Digital Education Hub_Higher Education - Unique Project Code (CUP) D43C2300453000530005;

Member of the international research PNRR project title e.INS Ecosystem of Innovation for Next Generation Sardinia - SPOKE 6 - CUP F53C22000430001 – MUR code: ECS00000038. Leader of the WP6. Principal Investigator: Prof. G. Fenu & Dr. M. Marras;

Scientific Coordinator of the international research project titled “Context Adapter Tree-based Framework” funded by MGR (Mobilità Giovani Ricercatori) in 2023 to cooperate with the Constructor University Bremen gGmbH (Germany);

	Member of the international research project title “ISIDE: Innovazione per la Sicurezza DEL mare” (Innovation for Sea Safety). Funded by the Interreg Italy France Maritime 2014-2020 cooperation program – III Notice - ‘ISIDE Innovation for Sea Safety’ Project - Axis 2 (CUP F54D18000120006). University of Cagliari. Scientific Coordinator: Prof. Gianfranco Fancello; Duration: 6 months Member of the international research project title “OMD: Osservatorio di merci pericolose”. Funded by the Interreg Italy France Maritime 2014-2020 cooperation program – III Notice (CUP F14D18000140006). University of Cagliari. Scientific Coordinator: Eng. Patrizia Serra; Duration: 5 months Member in the Department of Economic and Business Sciences of the University of Cagliari of the industrial research and experimental development project aimed at the “Creation of an ICT platform to support the tourism sector”, funded by the Autonomous Region of Sardinia as part of the PIA Call - Integrated Facilitation Packages “Industry, Crafts and Services” (Annuity 2013), Unitary Programming 2007/2013 - PO FESR 2007/2013. Interventions to support competitiveness and innovation (grant No. PIA - 2013 No. 282/13). Coordinatore: Prof. Francesco Mola. Durata: 8 mesi
SCIENTIFIC COMMITTEE MEMBERSHIP	Chair and organizer of the Invited Session “Navigating Complexity: new methodological frontiers in Textual and Preference Analysis” at ECDA 2026 – European Conference on Data Analysis (Stralsund, Germany, 9-11 September 2026), with invited speakers Atsuhiko Nakayama (Tokyo Metropolitan University, Japan), Luiza Pincastelli (University College Dublin, Ireland), Cristina Mollica (Sapienza University of Rome, Italy), and Maurizio Romano (University of Cagliari, Italy); Chair of the Local Organizing Committee for the summer school PREFSTAT2024 – PREFerence STATistics First Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data, organized by University of Cagliari, University of Naples Federico II, University of Palermo, and University of Oslo (Calasetta, 02-06 September 2024); Technical Chair for the 50th meeting of SIS2021, organized by Italian Statistical Society (SIS), University of Pisa, and University of Cagliari (Pisa-Cagliari, 21-25 June 2021); Member of the Local Organizing Committee for the Spring School Urban Computing 2019 - First Spring school of the TDM research and training project, organized by Sardegna Ricerche, CRS4, and University of Cagliari (Cagliari, 15-22 May 2019).
VISITING POSITIONS	Universidad de Valladolid, Spain 13-20 June 2026, <i>Visiting Professor at the Universidad de Valladolid</i>, Valladolid, invited by Prof. José Luis García-Lapresta To serve as a teacher for PREFSTAT 2026 – PREFerence STATistics Third Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data Tokyo Metropolitan University, Japan 30 Oct 2025 to 30 Nov 2025, <i>Visiting Professor at the Tokyo Metropolitan University</i>, Tokyo, invited by Prof. Atsuhiko Nakayama To develop a research project funded by MGR (Mobilità Giovani Ricercatori) titled “General Sentiment Decomposition” Universitetet i Oslo, Norway 28 June 2025 to 6 July 2025, <i>Visiting Professor at the Universitetet i Oslo</i>, Oslo, invited by Prof.ssa Valeria Vitelli To serve as a teacher for PREFSTAT 2025 – PREFerence STATistics Second Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data

Constructor University Bremen gGmbH, Germany 9 October 2023 to 25 October 2023,
Visiting fellow at the Constructor University Bremen, Bremen, invited by Prof. Adalbert F.X. Wilhelm

Jacobs University Bremen gGmbH, Germany February 2020 to May 2020,
Visiting fellow at the Jacobs University Bremen, Bremen, invited by Prof. Adalbert F.X. Wilhelm

Universitat Politècnica de Catalunya, Spain June 2019 to September 2019,
Visiting fellow at the Universitat Politècnica de Catalunya, Barcellona, invited by Prof. Tomàs Aluja Banet

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Albano A., **Romano M.** (2026), A distance-based aggregation method for finding consensus in preference-approvals. *Adv Data Anal Classif*. DOI: [10.1007/s11634-025-00663-4](https://doi.org/10.1007/s11634-025-00663-4)
2. Priola M. P., **Romano M.** (2025), Balancing performance and environmental efficiency: a multiclass classification study of textual data. *Electronic Journal of Applied Statistical Analysis*. DOI: [10.1285/i20705948v18n2p238](https://doi.org/10.1285/i20705948v18n2p238)
3. **Romano M.**, Conversano C. (2025), Stairway to Heaven: An emotional journey in Divina Commedia with Threshold-based Naïve Bayes classifier. *Machine Learning with Applications*. DOI: [10.1016/j.mlwa.2024.100613](https://doi.org/10.1016/j.mlwa.2024.100613)
4. **Romano M.**, Conversano C., Siciliano R., D'Ambrosio A. (2025), Particle swarm optimization for preference rankings. *Adv Data Anal Classif*. DOI: [10.1007/s11634-025-00626-9](https://doi.org/10.1007/s11634-025-00626-9)
5. Zammarchi G., **Romano M.**, Conversano C. (2024). Automatic topic title assignment with word embedding, *Journal of Classification*. DOI: [10.1007/s00357-024-09476-0](https://doi.org/10.1007/s00357-024-09476-0)
6. Ortu M., **Romano M.**, Carta A. (2024) Semi-supervised topic representation through sentiment analysis and semantic networks. *Big Data Research*. DOI: [10.1016/j.bdr.2024.100474](https://doi.org/10.1016/j.bdr.2024.100474)
7. **Romano M.**, Zammarchi G., Conversano C. (2023), iterative Threshold-based Naïve Bayes Classifier, *Stat Methods Appl*. DOI: [10.1007/s10260-023-00721-1](https://doi.org/10.1007/s10260-023-00721-1)
8. Frigau L., **Romano M.**, Ortu, M., Contu G. (2023), Semi-supervised sentiment clustering on natural language texts. *Stat Methods Appl*. DOI: [10.1007/s10260-023-00691-4](https://doi.org/10.1007/s10260-023-00691-4)
9. **Romano M.**, Contu G., Mola F., Conversano C. (2023), Threshold-based Naïve Bayes classifier. *Adv Data Anal Classif*. DOI: [10.1007/s11634-023-00536-8](https://doi.org/10.1007/s11634-023-00536-8)
10. Contu G., Frigau L., Mola F, **Romano M.**, Conversano C. (2020). University student achievements and international mobility. The case of University of Cagliari. *Electronic Journal of Applied Statistical Analysis*, 13(2), 474–497. ISSN: 2070-5948. DOI: [10.1285/i20705948v13n2p474](https://doi.org/10.1285/i20705948v13n2p474).

BOOK CHAPTERS

11. **Romano M.**, Zammarchi G. (2025), An Hybrid Preference Learning Framework to Refine the Consensus Ranking. In: *Supervised and Unsupervised Statistical Data Analysis. CLADAG-VOC 2025. Studies in Classification, Data Analysis, and Knowledge Organization*. Springer, Cham. DOI: [10.1007/978-3-032-03042-9_25](https://doi.org/10.1007/978-3-032-03042-9_25)

12. Ortu M., **Romano M.**, Carta A. (2024). SMARTS: SeMi-Supervised Clustering for Assessment of Reviews Using Topic and Sentiment. In: Davino, C., Palumbo, F., Wilhelm, A.F.X., Kestler, H.A. (eds) Recent Trends and Future Challenges in Learning from Data. ECDA 2022. Studies in Classification, Data Analysis, and Knowledge Organization, pp. 95–106. Springer, Cham.
DOI: [10.1007/978-3-031-54468-2_9](https://doi.org/10.1007/978-3-031-54468-2_9).
13. **Romano M.**, Mola F., Conversano C. (2021). Decomposing tourists’ sentiment from raw NL text to assess customer satisfaction. *ASA 2021 Statistics and Information Systems for Policy Evaluation*, pp. 147–151. Firenze University Press, Florence. ISBN: 978-88-5518-304-8. DOI: [10.36253/978-88-5518-304-8_29](https://doi.org/10.36253/978-88-5518-304-8_29).
14. Contu G., Frigau L., **Romano M.** (2019). Four community detection algorithms for direct and indirect graphs. *Il Mondo che cambia*, A. Pavan, A. Diliberto (eds.), pp. 250–262. Franco Angeli, Milano. ISBN: 9788891798701.
15. **Romano M.** (2026), Rank aggregation problem: an hybrid preference learning framework. In: Book of Abstracts ECDA 2026 – European Conference on Data Analysis, Stralsund, Germany, 9-11 September 2026. **Invited Session**
16. Mollica C., **Romano M.**, Deriu F. (2026), From clinical narratives to evidence: a statistical text analysis of perpetrator intervention programs. In: Book of Abstracts ECDA 2026 – European Conference on Data Analysis, Stralsund, Germany, 9-11 September 2026. **Invited Session**
17. **Romano M.** (2026), [title to be defined]. In: Book of Abstracts CFE-CMStatistics 2026 (ERCIM), Session CO274 “Advances in preference learning” (organizer: Luca Coraggio), 12-14 December 2026. **Invited Session**
18. **Romano M.**, Zammarchi G. (2025), CLADAG - VOC 2025 BOOK OF ABSTRACTS. In: 15-th Scientific Meeting Classification and Data Analysis Group (CLADAG 2025). Zaccaria srl. ISBN: 9788899594244
19. **Romano M.** (2025), STATISTICS FOR INNOVATION I. In: SIS 2025 - STATISTICS FOR INNOVATION. Italian Statistical Society Series on Advances in Statistics. Springer International Publishing AG.
DOI: [10.1007/978-3-031-96736-8_41](https://doi.org/10.1007/978-3-031-96736-8_41) **Invited Session**
20. Ibba G., Calderón Ramírez S., Abreu Cárdenas M., Masis-Solano M., **Romano M.** (2025), Weakly Supervised Anterior Lens Surface Segmentation for Cataract Detection. 2025 IEEE 7th International Conference on BioInspired Processing (BIP). ISBN: 979-8-3315-7014-9
21. Boi S., Tedesco N., **Romano M.**, Salaris L. (2025), Book of Short Papers 2025 Conference of the 12th Scientific Meeting of the Statistics for the Evaluation and Quality of Services Group of the Italian Statistical Society (SVQS) IES 2025 - Innovation & Society: Statistics and Data Science for Evaluation and Quality University of Padova. Cleup. ISBN: 978-88-5495-849-4
22. **Romano M.** (2025), Particle Swarm Optimization in preference rankings, **Invited Session** at ISI2025 65th ISI World Statistics Congress,
isi-next.org/abstracts/submission/3191/view/
23. **Romano M.**, Priola M. P. (2024). Multi-class text classification of news data. SDS2024: Statistic and Data Science Conference, Palermo, April 11–12, 2024. To appear in: Book of Short Papers SDS 2024 **Invited Session**

24. **Romano M.**, Siciliano R. (2023). A new accurate heuristic algorithm to solve the rank aggregation problem with a large number of objects. *CLADAG2023: 14th Scientific Meeting of the Classification and Data Analysis Group*, Salerno, September 11–13, 2023, pp. 269–272. ISBN: 978-88-9193-563-2 **Invited Session**
25. Zammarchi G., **Romano M.**, Conversano C. (2022). Evolution of Media Coverage on Climate Change and Environmental Awareness: an Analysis of Tweets from UK and US Newspapers. *Classification and Data Science in the Digital Age - Book of Abstracts IFCS 2022*, 17th Conference of the International Federation of Classification Societies (IFCS), pp. 122. CLAD - Associação Portuguesa de Classificação e Análise de Dados, Porto(PT). ISBN: 978-989-98955-9-1.
26. **Romano M.**, Zammarchi G., Contu G. (2022). Iterative Threshold-based Naïve Bayes Classifier: an efficient Tb-NB improvement. *Book of the Short papers SIS 2022 51st Scientific Meeting of the Italian Statistical Society*, pp. 1656–1661. Società Italiana di Statistica, Caserta. ISBN: 9788891932310.
27. Contu G., Frigau L., **Romano M.**, Ortu M. (2022). A semi-supervised clustering method to extract information from the electronic Word Of Mouth. *Book of the Short papers SIS 2022 51st Scientific Meeting of the Italian Statistical Society*, pp. 1558–1563. Società Italiana di Statistica, Caserta. ISBN: 9788891932310.
28. Zammarchi G., Contu G., **Romano M.** (2022). Evolution of scientific literature on climate change: a bibliometric analysis. *Book of the Short papers SIS 2022 51st Scientific Meeting of the Italian Statistical Society*, pp. 1273–1278. Società Italiana di Statistica, Caserta. ISBN: 9788891932310.
29. Contu G., **Romano M.**, Zammarchi G. (2022), Textual Semi-Supervised Clustering: an Application on Booking.com Data, *ISBIS 2022 Book of Short Abstracts*, pp. 50, ISBIS 2022, ISBN 979-12-210-1389-4.
30. **Romano M.**, Zammarchi G., Conversano C. (2022). Threshold-based Naïve Bayes Classifier: Customer Satisfaction evaluation. *Book of Short Papers IES 2022 Innovation & Society 5.0: Statistical and Economic Methodologies for Quality Assessment*, pp. 90–94. Società Italiana di Statistica, Caserta. ISBN: 978-88-94593-35-8.
31. Conversano C., **Romano M.**, Mola F. (2019). Hotel search engine architecture based on online reviews' content. *Smart Statistics for Smart Applications*, pp. 213–218. Società Italiana di Statistica, Milano. ISBN: 9788891915108.
32. **Romano M.**, Frigau L., Contu G., Mola F., Conversano C. (2019). Customer Satisfaction from Booking. *GARR-18 Conference - Data (R)evolution - Selected Papers*, pp. 111–118. Associazione Consortium GARR, Roma. ISBN: 978-88-905077-8-6. DOI: [10.26314/GARR-Conf18-proceedings-21](https://doi.org/10.26314/GARR-Conf18-proceedings-21).
33. **Romano M.**, D'Ambrosio A., Conversano C. (2026), A deterministic and scalable heuristic for median ranking detection: tie-aware local search with optimal tie partitioning on the combined input matrix, *European Journal of Operational Research*. *Submitted on 22 July 2026*
34. **Romano M.**, Albano A. (2026), Consensus for Preference-Approvals with The-Ordinals, *The R Journal*. *Submitted on 21 July 2026*
35. **Romano M.** (2026), Threshold-Based Naive Bayes Text Classification with the tbnb Package, *The R Journal*. *Submitted on 21 July 2026*

PUBLICATIONS IN
PEER-REVIEWED
JOURNALS
(SUBMITTED)

PH.D. THESIS	36. Romano M. (2021), General Sentiment Decomposition: opinion mining based on raw Natural Language text, Tesi di Dottorato di Ricerca in Scienze Economiche ed Aziendali – Indirizzo Quantitativo (Statistica SECS-S/01), Università degli Studi di Cagliari
WORKING PAPERS	37. Romano M. , Wilhelm A., Conversano C., Context Adapter Tree-based framework 38. Romano M. , Nakayama A. (2026), General Sentiment Decomposition on Japanese Text 39. Romano M. (2026), Benchmarking Naïve Bayes classifiers
SOFTWARE (R PACKAGES)	• tbnb (v0.1.0) – Threshold-Based Naive Bayes text classification (Tb-NB / iTb-NB). R package published on CRAN on 21 July 2026 cran.r-project.org/package=tbnb • TheOrdinals (v0.1.0) – Consensus methods for preference-approvals (DIVA algorithm). R package published on CRAN on 11 July 2026 cran.r-project.org/package=TheOrdinals
CONFERENCE PRESENTATIONS (INTERNATIONAL)	1. ECDA2026 - European Conference on Data Analysis, 9-11 September 2026, Stralsund, Germany. Presentation title “Rank aggregation problem: an hybrid preference learning framework”. Invited Lecture. 2. CFE-CMStatistics 2026 (ERCIM) - International Conference on Computational and Financial Econometrics and Computational and Methodological Statistics, 12-14 December 2026. Invited Session CO274 “Advances in preference learning” (organizer: Luca Coraggio). Presentation title (title to be defined). Invited Lecture. 3. IFCS2026 - 19th Conference of the International Federation of Classification Societies, 14–16 July 2026, Milan. Presentation title “DIVA: A distance-based aggregation method for finding consensus in preference-approvals”. Invited Lecture. 4. ISI2025 - 65th ISI World Statistics Congress, 2025. Presentation title “Particle Swarm Optimization in preference rankings”. Invited Lecture. 5. CLADAG2025 - 15th Scientific Meeting of the Classification and Data Analysis Group, 2025. Presentation title “An hybrid preference learning framework to refine the consensus ranking”. 6. SIS2025 - Statistics for Innovation, Scientific Meeting of the Italian Statistical Society, 2025. Presentation title “Iterative Threshold-based Naïve Bayes classifier: further interpretability with p-values”. Invited Lecture. 7. SDS2024 - Statistic and Data Science Conference, 11–12 April 2024, Palermo. Presentation title “Multi-class text classification of news data”. Invited Lecture 8. CLADAG2023 - 14-th Scientific Meeting of Classification and Data Analysis Group, 11–13 September 2023, Salerno. Presentation title “A new accurate heuristic algorithm to solve the rank aggregation problem with a large number of objects”. Invited Lecture. 9. ECDA2022 - European Conference on Data Analysis, 15 September 2022, Naples. Presentation title “General Sentiment Decomposition: an interpretable sentiment analysis framework”. Invited Lecture.

10. **SIS2022** - 51st Scientific Meeting of the Italian Statistical Society, 22-24 June 2022, Caserta. Presentation title “Iterative Threshold-based Naïve Bayes Classifier: an efficient Tb-Nb improvement”.
11. **IES2022** - Innovation and Society 5.0: Statistical and Economic Methodologies for Quality Assessment, 26 January 2022, Capua. Presentation title “Threshold-based Naïve Bayes Classifier: Customer Satisfaction evaluation”.
12. **DSSV-ECDA 2021** - European Conference on Data Analysis, 07-09 July 2021, online. Presentation title “General Sentiment Decomposition: opinion mining based on raw Natural Language text”. **Invited Lecture**.
13. **PreConference ASA2021** - Statistics and information systems for policy evaluation, 10-12 March 2021, online. Presentation title “Decomposing tourists’ sentiment from raw NL text to assess customer satisfaction”.
14. **NTTS2021** - Conference on New Techniques and Technologies for Statistics, 09-11 March 2021, online. Presentation title “General Sentiment Decomposition: opinion mining based on raw NL text”.
15. **iEMSs Conference 2020** - International Environmental Modelling and Software Society, 14-18 September 2020, online. Presentation title “General Sentiment Decomposition: Climate Change topic & Twitter.com users”.
16. **SIS2019** - Smart Statistics, 18-21 June 2019, Milan. Presentation title “Hotel search engine architecture based on online reviews’ content”.
17. **Student mobility, university and post-university choices**, 11-12 April 2019, Cagliari. Presentation title “University student achievements and international mobility: the case of University of Cagliari”.

CONFERENCE
PRESENTATIONS
(NATIONAL)

18. **BTO2023** - 22-23 November 2023, Florence. Presentation title “Scegli la parola giusta: come le singole parole influenzano il rating delle review”. **Young Speaker selected**.
19. **GARR2018** - “Data Revolution”, 03-05 October 2018, Cagliari. Presentation title “Customer satisfaction from Booking”.

SEMINARS

20. Seminar at Constructor University Bremen gGmbH, 24 October 2023, Bremen. Presentation title “A sentimental introduction to Textual Analysis”. **Invited Lecture**.
21. “**E quindi uscimmo a contar le stelle**”, 17 December 2021, Palermo. Presentation title “leggere con sentiment: quali e quante emozioni in un’unica opera letteraria”. **Invited Lecture**.
22. Seminar at Jacobs University Bremen gGmbH, 25 February 2020, Bremen. Presentation title “Hotel search engine architecture based on online reviews’ content”. **Invited Lecture**.
23. “**Applications of Data Science tools in tourism**”, 26 November 2018, Cagliari. Presentation title “Customer satisfaction from Booking”. **Invited Lecture**.

REFeree SERVICE

- Cognitive Computation.
- Current Issues in Tourism.
- Operations Research Perspectives.
- Quality and Quantity, 2025 – pres.
- IFCS 2026, editorial contact: Francesca Greselin.

- Machine Learning with Applications, 2024 – pres.
- Journal on Computing and Cultural Heritage, 2025 – pres.
- Knowledge and Information Systems, 2025.
- Information Processing and Management, 2025.
- Supervised and Unsupervised Statistical Data Analysis (2025). In A. D’Ambrosio, M. de Rooij, C. Iorio, & K. De Roover (Eds.), *Studies in Classification, Data Analysis, and Knowledge Organization*. Springer Nature Switzerland. <https://doi.org/10.1007/978-3-031-54468-2>, editorial contact: Carmela Iorio.
- Computational Statistics, editorial contact: Adalbert F.X. Wilhelm.
- Journal of Supercomputing, editorial contact: Hamid R. Arabnia.
- Recent Trends and Future Challenges in Learning from Data. (2024). In C. Davino, F. Palumbo, A. F. X. Wilhelm, & H. A. Kestler (Eds.), *Studies in Classification, Data Analysis, and Knowledge Organization*. Springer Nature Switzerland. <https://doi.org/10.1007/978-3-031-54468-2>, editorial contact: Cristina Davino.

HONORS AND AWARDS

- **Best Paper Award of BIP2025.** “Weakly Supervised Anterior Lens Surface Segmentation for Cataract Detection” selected as the Best Paper in the 7th IEEE International Conference on BioInspired Processing. The event was held in Universidad Nacional Campus Pérez Zeledón, Costa Rica on December 3–5, 2025.
- **Young Speaker of BTO 2023.** “Be Travel Online,” for 15 years the reference point in Italy for digital tourism, innovation, and education. Selected as one of the 10 most innovative, original, and potentially impactful proposals, that provide an analysis of travel industry trends.
bto.travel/young-speaker-vincitori-bto2023/, Florence, 23 November 2023.
- Winner of an **award funded by the Italian Statistical Society (SIS)** for the best communication during the **Stats Under the Stars4 (SUS4)** competition. The event involves a competition among young statisticians organized in teams, who compete in the analysis of a dataset within a limited time frame.
unipa.it/dipartimenti/seas/sus4/vincitori/, Palermo, June 20, 2018.

RESEARCH FUNDING

- Winner of a **grant** funded by **MGR (Mobilità Giovani Ricercatori)** to develop a project entitled “General Sentiment Decomposition”, at Tokyo Metropolitan University (Tokyo, Japan). Supervisor: Prof. Atsuhiko Nakayama, from 30 October to 30 November 2025.
- Winner of a **grant** funded by **MGR (Mobilità Giovani Ricercatori)** to develop a project entitled “Context Adapter Tree-based Framework”, at Constructor University Bremen gGmbH (Bremen, Germany). Supervisor: Prof. Adalbert F.X. Wilhelm, from 9 October to 25 October 2023.
- Winner of a **scholarship awarded by the “German Academic Exchange Service (DAAD)”** for the development of a research project titled “General Sentiment Decomposition” at Jacobs University Bremen gGmbH (Bremen, Germany), from February 1, 2020, to May 31, 2020.
- Winner of a **scholarship awarded by the European Union Program (Erasmus Placedoc)** to study and conduct research at Universitat Politècnica de Catalunya (Barcelona, Spain), from June 1, 2019, to September 30, 2019.

TEACHING EXPERIENCE

Lecturer

Massive Open Online Courses (MOOCs) – by University of Cagliari

- EDVANCE project: Introduction to computational statistics, 9 hours of video-lectures, **AA 2025/2026** edvance.it/edvance/app/courseDetails/600
- EDVANCE project: Bivariate analysis and fundamentals of probability theory, 9

hours of video-lectures, **AA 2025/2026**

- EDVANCE project: Statistical inference, 9 hours of video-lectures, **AA 2025/2026**
- EDVANCE project: Introduction to statistical models, 9 hours of video-lectures, **AA 2025/2026**

Short Specialisation's Level Courses

- Rank aggregation problem, heuristics, introduction to supervised and unsupervised preference learning (PREFSTAT 2026 – PREference STATistics Third Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data), 3 hours (in English), June 2026 – Universidad de Valladolid, Spain, **AA 2025/2026**
- Rank aggregation problem, heuristics, introduction to supervised and unsupervised preference learning (PREFSTAT 2025 – PREference STATistics Second Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data), 3 hours (in English), June 2025 – Universitetet i Oslo, Norway, **AA 2024/2025**
- Basic preference learning: rank aggregation and data analytics, connection with distance-based models (PREFSTAT 2024 – PREference STATistics First Summer School in Advanced Statistical Learning for Preference, Ranking, and Ordinal Data), 3 hours (in English), September 2024 – University of Cagliari, Italy, **AA 2023/2024**

Ph.D. Level Courses (at University of Cagliari, Italy)

- An introduction to Statistical Textual Analysis, (8 hours, Summer 2024)

Ph.D. Level Courses (at University of Cagliari, Italy)

- Quantitative Methods, (8 hours, Fall 2024)

Master's Level Courses (at University of Cagliari, Italy)

- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 36 hours (6 ECTS), **Academic Year 2025/2026**
- Statistical Learning (Master's Degree in Economics, Finance and Data Analysis – Fully in English), 36 hours (6 ECTS), **Academic Year 2025/2026**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 36 hours (6 ECTS), **Academic Year 2024/2025**
- Statistical Learning (Master's Degree in Economics, Finance and Data Analysis – Fully in English), 36 hours (6 ECTS), **Academic Year 2024/2025**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 12 hours (9 ECTS, co-professor), **Academic Year 2023/2024**
- Statistical Learning Methods for Data Science (Master's Degree in Economics, Finance, and Public Policies), 36 hours (6 ECTS), **Academic Year 2022/2023**
- Quantitative Methods for Management (Master's Degree in Managerial Economics - International Management), 54 hours (9 ECTS), in English, **Academic Year 2021/2022**
- Quantitative Methods for Management (Master's Degree in Managerial Economics - International Management), 54 hours (9 ECTS), in English, **Academic Year 2020/2021**

Undergraduate Courses (at University of Cagliari, Italy)

- Probability and Statistical Inference (Bachelor's Degree in Applied Computer Science and Data Analytics), 48 hours (6 ECTS), **Academic Year 2023/2024**
- Applied Statistics for Natural Sciences (Bachelor's Degree in Environmental and Natural Sciences), 48 hours (6 ECTS), **Academic Year 2021/2022**

Teaching Assistant, at University of Cagliari, Italy

Responsibilities have included leading practice and computing lab sessions, holding office hours, creating lab content, and grading.

- Statistical Learning Methods for Data Science (Master's Degree in Data Science, Business Analytics, and Innovation), 36 hours (9 ECTS), **Academic Year 2022/2023**
- Statistical Learning Methods for Data Science (Master's Degree in Data Science, Business Analytics, and Innovation), 40 hours (9 ECTS), **Academic Year 2021/2022**

- Statistical Learning Methods for Data Science (Master's Degree in Data Science, Business Analytics, and Innovation), 40 hours (9 ECTS), **Academic Year 2019/2020**
- Statistical Learning Methods for Data Science (Master's Degree in Data Science, Business Analytics, and Innovation), 40 hours (9 ECTS), **Academic Year 2018/2019**
- Statistical Learning Methods for Data Science (Master's Degree in Data Science, Business Analytics, and Innovation), 40 hours (9 ECTS), **Academic Year 2017/2018**

Activity of preparing exercises, exam preparation, and assisting students in their thesis writing:

- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2022/2023**
- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2021/2022**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 6 ECTS, **Academic Year 2021/2022**
- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2020/2021**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 6 ECTS, **Academic Year 2020/2021**
- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2019/2020**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 6 ECTS, **Academic Year 2019/2020**
- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2018/2019**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 6 ECTS, **Academic Year 2018/2019**
- Statistics (Bachelor's Degree in Economics and Business Management), 12 ECTS, **Academic Year 2017/2018**
- Big Data Analysis (Master's Degree in Data Science, Business Analytics, and Innovation), 6 ECTS, **Academic Year 2017/2018**

MEMBER OF THE
MASTER'S DEGREE
GRADUATION
SESSION
COMMITTEE

University of Cagliari

- | | |
|---|-------------------------|
| • Data Science, Business Analytics e Innovazione, Secretariat | 24 April 2026 |
| • Data Science, Business Analytics e Innovazione, Secretariat | 27 February 2026 |
| • Data Science, Business Analytics e Innovazione, Member | 9 December 2025 |
| • Economia, Finanza e Politiche Pubbliche, Member | 23 October 2025 |
| • Data Science, Business Analytics e Innovazione, Secretariat | 23 April 2025 |
| • Data Science, Business Analytics e Innovazione, Member | 28 February 2025 |
| • Innovazione Sociale e Comunicazione, Member | 16 December 2024 |
| • Data Science, Business Analytics e Innovazione, Member | 22 July 2024 |
| • Data Science, Business Analytics e Innovazione, Secretariat | 19 April 2024 |
| • Economia Manageriale, Secretariat | 13 July 2023 |
| • Economia Manageriale, Secretariat | 27 October 2022 |
| • Economia Manageriale, Member | 15 July 2022 |
| • Economia Manageriale, Member | 28 April 2022 |
| • Economia Manageriale, Member | 18 February 2022 |

1. Data Science, Business Analytics e Innovazione, S. Prasciolu (2026), Knowledge Graph e Large Language Models per l'Analisi dei Test di Fluenza Verbale in Ambito Neurocognitivo, **Co-examiner**
2. Data Science, Business Analytics e Innovazione, F. Tiddia (2026), iTBNB: Implementazione di un moderno classificatore Naïve Bayes in Python, **Supervisor**
3. Data Science, Business Analytics e Innovazione, G. Ibba (2026), Weakly Supervised Anterior Lens Surface Segmentation for Cataract Detection, **Supervisor**
4. Data Science, Business Analytics e Innovazione, P. Marongiu (2026), Un framework per la Time Tracking analysis: il caso studio Innovyou, **Supervisor**
5. Data Science, Business Analytics e Innovazione, S. Pischedda (2026), Cross-catalog entity matching tramite learning-to-rank nel dominio biomedico. Applicazione alle collezioni biobancarie in BBMRI-ERIC e agli studi clinici in ECRIN, **Co-examiner**
6. Data Science, Business Analytics e Innovazione, E. Addari (2025), DocGen - Automatic Generation of Documentation from Code Repositories, **Supervisor**
7. Economia, Finanza e Politiche Pubbliche, P.A. Piredda (2025), Construction and Performance Analysis of Regime-Switching-Enhanced Adaptive and Omega Portfolios, **Co-examiner**
8. Data Science, Business Analytics e Innovazione, A. Mancosu (2025), Start up e biotecnologie: un'analisi globale di finanziamento e sviluppo, **Co-examiner**
9. Data Science, Business Analytics e Innovazione, S. Mattu (2025), Dal framing alla percezione: un'analisi computazionale su come i media raccontano l'immigrazione in Italia e sulla reazione dei social media, **Co-examiner**
10. Innovazione Sociale e Comunicazione, S. Boi (2024), The impact of AI on education, **Co-Supervisor**
11. Data Science, Business Analytics e Innovazione, M. P. Priola (2024), Optimizing Accuracy and Green Computing: A Study on Multiclass Text Classification, **Co-Supervisor**
12. Data Science, Business Analytics e Innovazione, F. Corona (2024), Tecniche di Natural Language Processing e inferenza statistica applicate all'analisi del mercato videoludico, **Co-examiner**
13. Data Science, Business Analytics e Innovazione, L. Deidda (2024), Topic modeling ed analisi delle recensioni delle strutture ricettive e delle attrazioni in Sardegna dal portale Booking.com e TripAdvisor: periodo post-COVID, **Co-examiner**
14. Economia Manageriale, M. Bouziri (2023), Efficiency Assessment of OECD Healthcare Systems: An Examination of influencing factors and Policy Implications, **Supervisor**
15. Economia Manageriale, S. Faticoni (2023), La visual narrative nelle imprese familiari: un'analisi esplorativa, **Co-examiner**
16. Economia Manageriale, H. Ezzaouraki (2023), Exploring the Power of User-Generated Content (UGC): A Study on the Impact of UGC on Company Performance and Brand Perception in Social Media, **Co-examiner**

17. Economia Manageriale, P. Cucca (2022), Resilienza Aziendale e Stress-Test per la gestione del rischio d'impresa. Applicazione ad un caso pratico, **Co-examiner**
18. Economia Manageriale, M. Barrili (2022), Person Environment fit e selezione dei talenti, **Co-examiner**
19. Economia Manageriale, M. Gesualdi (2022), Il passaggio generazionale nelle imprese familiari. Un'analisi esplorativa, **Co-examiner**
20. Economia Manageriale, A. D'Angelo (2022), Un'analisi di customer satisfaction: il servizio di trasporto pubblico nella Città Metropolitana di Cagliari, **Co-examiner**
21. Economia Manageriale, S. Lai (2022), Qualità del servizio, Customer Satisfaction e Fedeltà dei clienti: un'analisi sulla ristorazione in Sardegna, **Co-examiner**
22. Economia Manageriale, M. Piroddu (2022), Il Private Equity sostenibile: la Finanza che guarda al futuro, **Co-examiner**

PROFESSIONAL EXPERIENCE

- University of Cagliari, Cagliari **April 14, 2022 – July 25, 2022**
Support in validating sea-land communication protocols optimized from a human factors perspective and participation in the experiments conducted during the five tests planned within the ISIDE Project in the ports of Cagliari, Genoa, Bastia, Toulon, and Livorno.
- LAORE Sardegna Regional Agency, Cagliari **January 2014 – June 2014**
Curricular Internship.

THIRD MISSION AND PUBLIC ENGAGEMENT

- September 2025 – Sharper Night, Nuoro (European Researchers' Night); project selected by the University of Cagliari "Viaggio nel cuore della Sentiment Analysis e dell'Intelligenza Artificiale: Come fa a comprenderci?". Project promoter;
- April 2025 – April 2026 – Pro bono project for the Municipality of Calasetta (SU): SMART-C "Sviluppo e Miglioramento di Attrazioni e Risorse Turistiche Calasettane". Project promoter;
- November 2024 – Sharper Night, Nuoro (European Researchers' Night); project selected by the University of Cagliari "Comprensione del linguaggio naturale: esplorando word embeddings e modelli linguistici". Project promoter together with Dr. G. Zammarchi;
- October 2024 – February 2025 – Course "Mercato del lavoro, imprenditorialità e strumenti statistici a supporto delle decisioni – Module: Statistics";
- September 2024 – Sharper Night, Cagliari (European Researchers' Night). Promoter of the 2 projects presented by the Department together with Dr. M. Ortu and Dr. G. Zammarchi.

OTHER INSTITUTIONAL ACTIVITIES

- Member of the Self-Assessment Committee (CAV) for the Master's Degree in DSBAI (Data Science, Business Analytics and Innovation);
- Member of the Self-Assessment Committee (CAV) for the Master's Degree in "Data Science";
- Member of the admission teaching committee for the Master's Degree in "Data Science";
- Member of the Steering Committee of the Master's Degree in DSBAI;
- Examiner for the "TOLC" admission test (Academic Years 2023/2024, 2024/2025, 2025/2026);
- Member of the evaluation committee for the Tutor call – Rep. n. 138/2024 of 04/09/2024;

- Member of the evaluation committee for the Tutor call – Rep. n. 94/2024 of 09/07/2024;
- Member of the evaluation committee for the Tutor call – Rep. n. 88/2024 of 08/07/2024.

TECHNICAL SKILLS

R language, Python, C, C++, Java, Javascript, OCaml, PHP, SQL, LaTeX.
Operating Systems: Microsoft Windows family and Apple OS X

Cagliari, July 22, 2026