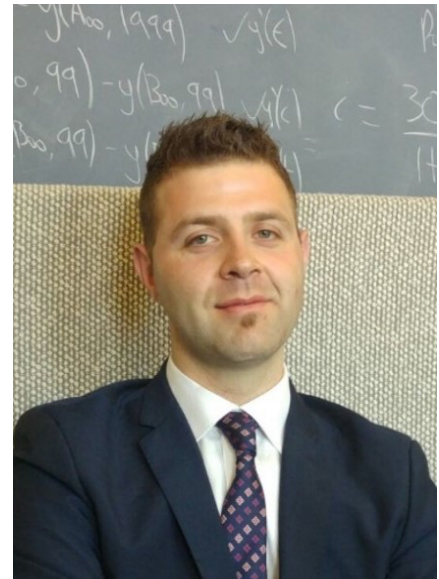


Curriculum of Scientific and Teaching Activities

Mattia Cattaneo, PhD

1. PERSONAL INFORMATION

- **Position:** Associate Professor
- **Department:** Department of Management, Information and Production Engineering – University of Bergamo
- **Scientific-Disciplinary Group:** 09/IEGE-01 – Management Engineering
- **Disciplinary Sector:** IEGE-01/A – Management Engineering
- **Areas of interest:** Healthcare Management Science, Higher Education, Science Policy, and Research Evaluation



1. ACADEMIC RÉSUMÉ

Mattia Cattaneo, Ph.D. is Associate Professor at the University of Bergamo, Department of Management, Information and Production Engineering. His teaching and research span Economics and Organization of Firms, Management of Healthcare Organizations, Healthcare Finance, and Business Valuation, with a sustained focus on health systems management, operational efficiency, and health technology assessment. He also serves as Academic Coordinator for Internships within the Health Management track of the Industrial Engineering programme, where he co-designs and integrates experiential learning in collaboration with hospitals and healthcare organizations.

He is a member of the Academic Boards of two doctoral programmes: the **Ph.D. in Technology, Innovation and Management (TIM)**—jointly offered with the University of Naples “Federico II”—and the **Ph.D. in Health and Longevity**, developed in partnership with the Mario Negri Institute. Across both programmes, his supervision and mentoring focus on data-driven decision support, digital transformation in healthcare, and organizational design for health innovation.

At the national level, Professor Cattaneo is **Scientific Coordinator** of two four-year projects funded by the Italian Ministry of University and Research (MUR) within **ANTHEM – Advanced Technologies for Human-Centered Medicine** (PNRR Complementary Funds, 2022–2026): **Digital Triage at the Emergency Room** (total consortium budget approx. €1.5M) and **Wearable Devices for Remote Monitoring of Parkinson’s Disease and Frail Patients** (total consortium budget approx. €2M). Both initiatives apply advanced analytics and optimization to improve emergency triage and remote monitoring, bridging clinical practice and data-driven innovation.

He is **Unit Coordinator** of the inter-university project **Emergency Medicine 4.0: An Integrated Data-Driven Approach to Improve Emergency Department Performance** (total grant €230K; Universities of Bergamo, Pisa, and Padua), promoting predictive analytics and simulation for emergency-care optimization. At the regional level, he leads the **AREU Lombardy** project on **Emergency Efficiency and Drone Deployment**, assessing operational performance through the integration of autonomous systems and resource-optimization models.

Alongside his academic duties, Professor Cattaneo serves as **Scientific Advisor** to the **European Foundation for Biomedical Research (FERB)**, contributing to biomedical innovation, digital health, and translational policy design. He is also **Board Member** of **RigenerAI S.r.l.**, where he provides scientific direction, business-value assessment, and guidance on data interoperability and patient empowerment.

Internationally, he is **Senior Research Fellow** at **IN+ – Center for Innovation, Technology and Policy Research, Instituto Superior Técnico** (Lisbon), connecting healthcare management and technology policy; he also collaborates with **CHERA** (University of Hong Kong) on international academic mobility and research-network dynamics. He serves as a **Formal Evaluator** for the **U.S. National Science Foundation (NSF)**, collaborates with **European Commission COST Actions**, and is a **Permanent Member** of **AGIFORS**. His work integrates operations research, management science, and health economics to design systems that balance efficiency, equity, and innovation.

Previously, he was **Vice-Director** of the **ITSM (ICCSAI – Transport and Sustainable Mobility) Center** (2021–2024), advancing cross-sectoral research on sustainability, logistics, and healthcare operations. He served as **Associate Editor** for **Higher Education Research & Development (HERD)**

2. EDUCATIONAL BACKGROUND

2012-2014 Ph.D. in Economics and Technology Management, University of Bergamo, Italy
Supervisor: Prof. **Stefano Paleari**. Thesis: *Essays in Higher Education: Internationalization, Competition, and Funding Mechanisms*. The doctoral research explored the strategic and economic dimensions of higher education systems, focusing on international competition, governance models, and performance-based funding mechanisms. The work combined econometric analysis and

comparative institutional approaches, contributing to the understanding of academic marketization and policy design in Europe.

2013-2014 Research Visiting Period, Center for Innovation, Technology and Policy Research (IN+), Instituto Superior Técnico, Lisbon, Portugal – Sept. 2013 - Jan. 2014. Supervisors: Prof. **Manuel Heitor Valsassina** (Former Minister of Science, Technology and Higher Education, Portugal) and Prof. **Hugo Horta** (Associate Professor, University of Hong Kong). The visiting period focused on research in science, technology, and innovation policy, analyzing how institutional frameworks and funding mechanisms influence university performance and technological development.

2010 M.Sc. in Management Engineering, University of Bergamo, Italy. Thesis: *What Went Wrong: IPO Failure on the Italian Capital Market* The master's dissertation examined causes and patterns of IPO underperformance in Italy, highlighting managerial, governance, and market dynamics affecting the success of equity offerings.

3.TEACHING ACTIVITIES

Professor Mattia Cattaneo has extensive teaching experience across undergraduate, graduate, doctoral, and executive programmes, combining quantitative modelling, organizational design, and healthcare management. His teaching emphasizes applied learning and the integration of managerial and engineering approaches to complex systems. All the courses listed below are held as **lecturer in charge (titolarità di insegnamento)**.

Current year 2025-2026

Undergraduate and Graduate Courses (University of Bergamo)

- *Economia e Organizzazione Aziendale* – Bachelor in Ingegneria Gestionale
- *Economia e Organizzazione Aziendale* – Bachelor in Ingegneria delle Tecnologie per la Salute
- *Management delle Organizzazioni nel Settore Sanitario* – Master in Ingegneria Gestionale
- *Valutazione d'Impresa* – Master in Ingegneria Gestionale

Previous Courses Held as Lecturer in Charge (2015–2025)

- *Economia e Organizzazione Aziendale* – Bachelor in Ingegneria Meccanica (2016–2017)

- *Sistemi e Controllo di Gestione* – Bachelor in Ingegneria Informatica (2017–2024)
- *Healthcare Finance* – Bachelor in Ingegneria delle Tecnologie per la Salute (2017–2024)
- *Management of Healthcare Organizations (ENG)*– Master in Engineering and Management for Health (2023–2025)

Doctoral Teaching

- Lecturer for *Applied Quantitative Methods (ENG)* – Ph.D. in Technology, Innovation and Management (University of Bergamo and University of Naples “Federico II”), 2020–Present
- Lecturer for *Startups and Spinoffs (ENG)* and *Theoretical Perspectives in Management (ENG)* – Ph.D. in Health and Longevity (University of Bergamo and Mario Negri Institute), 2024–Present

Executive and Postgraduate Education

- Lecturer in charge of *Business Technology & Investment Evaluation* – NEWMED Programme (*La Medicina per la Società che Cambia*), Universities of Milano-Bicocca and Bergamo, ASST Papa Giovanni XXIII, FERB ETS, and Fondazione ANTHEM (2026)
- Lecturer in charge of *Master in Management delle Aziende Ospedaliere* – School of Management, University of Bergamo (2017–2021, 2023)
- Lecturer in charge of *AccadeMIART – Accademia Manageriale per Imprenditori Artigiani* – University of Bergamo (Jan–Feb 2019)
- Lecturer in charge of *Tecnico Superiore dei Servizi al Lavoro nei Sistemi di Istruzione, Formazione e Lavoro* – University of Bergamo (Jun–Jul 2017, Jun–Jul 2018)
- Lecturer in charge of *Economia dei Trasporti* – Fondazione ITS Mobilità Sostenibile (2015–2016)
- Lecturer in *Transport Economics and Spatial Modelling* – Ph.D. in Economics and Management of Technology (University of Bergamo and University of Pavia) (2014–2015)
- Lecturer in *MBA Part-Time Weekend* – Graduate School of Business, Politecnico di Milano (Jun 2015)

He has supervised numerous Bachelor’s, MSc, and PhD theses (3), as well as three RTD-A researchers, in the areas of healthcare operations, management science, and digital innovation.

4. SCIENTIFIC LEADERSHIP AND COORDINATION ROLES

Since 2014, Mattia Cattaneo has been involved and coordinated numerous national and international initiatives in the fields of higher education, transport systems, and healthcare management. His work combines scientific leadership, institutional collaboration, and applied modeling for decision support in complex systems.

ICCSAI – International Center for Competitiveness Studies in the Aviation Industry

Period: *April 2014 – December 2019*

Role: Scientific and Administrative Coordinator

As **Scientific Coordinator** of **ICCSAI**, later integrated into the University's **ITSM Center**, he directed national and international research activities on European air transport competitiveness. The center was chaired by **Eng. Fredmano Spairani** and coordinated by **Emilio Bellingardi** (CEO of SACBO).

His responsibilities included strategic research planning, coordination of the scientific committee and industrial partners, and applied studies on air connectivity, competition, and demand estimation.

The activities produced several scientific papers on **self-hubbing**, **de-hubbing**, and **low-cost carrier pricing**, and the **ICCSAI Factbook on European Air Transport Competitiveness** (2016–2018).

STEP4EU – Science, Technology, Education and Policy for Europe

Period: *April 2014 – December 2019*

Role: Co-promoter and Founding Member

He contributed to the start-up of the **European research network STEP4EU**, aimed at monitoring European science, technology, and higher education policies. The network involved major European institutions such as the **Fraunhofer Gesellschaft (MOEZ Institute)**, the **Institute of Education (UK)**, the **Max Planck Institute for the History of Science**, the **Universities of Amsterdam, London, Ghent, Paris 13**, and the **Dublin Institute of Technology**.

In collaboration with **Prof. Manuel Heitor Valsassina** (Minister of Science, Technology and Higher Education of Portugal, 2015–2022) he coordinated the initiative and led to the submission of the **COST Action Proposal OC-2015-2-20091**, “*Research Network on Science, Technology, Education and Policy for Europe*”, and to joint studies on higher education systems and researchers’ career trajectories across Europe.

NATIONAL AIRPORT PLAN 2035 – ENAC / MINISTRY OF INFRASTRUCTURE AND SUSTAINABLE MOBILITY

Period: February 2020 – September 2021

Role: Senior Expert and Head of the Technical Unit for Econometric Analysis

Senior Expert and Head of the Technical Unit for Econometric Analysis within the consortium appointed by the Italian Civil Aviation Authority (ENAC) for the formulation of the National Airport Plan 2035, commissioned by the Ministry of Infrastructure and Sustainable Mobility.

The consortium included the ITSM Center of the University of Bergamo, AECOM (a Fortune 500 multinational engineering firm, USA), and To70 Aviation (The Netherlands), with the official technical specification publicly available through ENAC's portal.

In this role, he designed the methodological framework and led the implementation of econometric and forecasting models to estimate air transport demand under multiple regulatory, infrastructural, and environmental scenarios. The analysis supported the strategic planning of the national airport system by accounting for variables such as post-pandemic recovery, decarbonization goals, and the evolution of service supply and demand over the coming decades.

The methodological outputs of this work were subsequently presented at the Air Transport Research Society (ATRS) Conference (Antwerp, 2022) in the paper "*An Air Accessibility Framework for Strategic Airport Systems Planning.*"

ITSM – Transport and Sustainable Mobility Center

Period: March 2017 – 2024

Role: Deputy Director

Deputy Director of the **ITSM Center**, appointed in 2020 and renewed until 2024. The center gathers over 30 researchers from multiple disciplines (engineering, economics, law, linguistics) and focuses on **transport planning, urban mobility, regulation, and intelligent transport systems.**

Under his coordination, the center established research collaborations with **Harvard GSD, MIT, TU Delft, and University of Coimbra**, leading to publications on **flight scheduling, fleet assignment, and airline network design.**

SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN (SUTD)

Period: March 2022 – Present

Role: Promoter and Scientific Coordinator

Promoter and principal investigator of a **five-year Memorandum of Understanding** between the **University of Bergamo** and **SUTD – Singapore University of Technology and Design** (signed July 2022).

The collaboration aims to develop joint research, training, and exchange programmes in:

1. Analytical modeling for complex systems;
2. Decision support and planning systems;
3. Airline connectivity and hub choice;
4. Sustainable aviation systems;
5. Economics and management of air transport.

Within this framework, **Prof. Nuno Antunes Ribeiro** (SUTD) conducted a visiting period in *Oct-Nov 2022* under the “Visiting Professor and Fellow” scheme. The partnership led to a **Collaborative Research Program** titled “*Hub Choice and Demand Modeling in Long-Haul Aviation Markets*”, co-led by **Prof. Cattaneo** and **Prof. Ribeiro**, currently under joint publication development.

CCSE-FERB

Period: *July 2022 – 2023*

Role: Scientific Coordinator

Scientific lead of the **Digitalization of Emergency Department Access and Triage Processes Project**, commissioned by the **European Foundation for Biomedical Research (FERB Onlus)** and entrusted to the **CCSE – CISAlpino Institute for Comparative Studies in Europe** at the University of Bergamo.

The project supports the digitalization of **eight emergency departments in Lombardy**, aligned with **Regional Resolution XI/6387 (May 2022)**.

Prof. Cattaneo coordinated stakeholders including **Regione Lombardia**, **ARIA S.p.A.**, **Intellera Consulting**, and hospital management teams (8 ASST).

The research component included:

- A **simulation model** to evaluate resource savings in triage workflows;
 - A **stated-preference survey** to assess digital adoption among patients and clinicians (R&R, *BMC Health Services Research*).
-

ASST BERGAMO EST AND ASST DEL GARDA

Period: February 2022 – Present

Role: Promoter and Scientific Coordinator

Promoter and scientific coordinator of two multi-year research agreements between the University of Bergamo and the Aziende Socio-Sanitarie Territoriali (ASST) of Bergamo Est and del Garda, aimed at advancing applied research in healthcare management, emergency medicine, and digital transformation.

The collaboration with ASST Bergamo Est (2022–ongoing) focuses on the scientific development and validation of analytical and machine learning models for predicting re-admissions and optimizing emergency department operations across four hospitals. The partnership has produced a joint paper (*Predicting ED re-admissions for hospitalisation in a multi-hospital network: a machine learning approach*, submitted to the *European Journal of Emergency Medicine*) and several joint conference contributions, including:

- *International Forum for Quality and Safety in Healthcare* (Gothenburg, 2022)
- *XIV National SIMM Congress* (Lecce, 2022)
- *XII National SIMEU Congress* (Milan, 2022)

The ASST del Garda agreement (2023–ongoing) establishes a four-year framework for joint scientific and training activities, focusing on performance monitoring, process re-engineering, and digitalisation in emergency care.

The first research outcome, “*The impact of digitalisation on emergency department triage operations*”, was presented at the European Health Management Association Conference (EHMA 2023).

AREU LOMBARDIA

Period: 2023 – Present

Role: Scientific Coordinator and Principal Investigator

Scientific coordinator of the **research collaboration between the University of Bergamo (CCSE – CISAlpino Institute for Comparative Studies in Europe) and AREU Lombardia**, aimed at assessing and improving the **efficiency of emergency medical systems through the integration of UAV (drone) technologies**.

The project develops and tests **analytical and simulation models** to evaluate the impact of UAV-assisted missions—such as the rapid delivery of defibrillators and life-saving equipment—on response times and patient outcomes across urban and rural areas.

Research activities include **geospatial data analysis**, **fleet optimization**, and **scenario simulation** to support strategic planning and operational deployment within the regional emergency network.

CONSORTIUM FOR HIGHER EDUCATION RESEARCH IN ASIA (CHERA) - The University of Hong Kong

Period: *February 2020 - Present*

Role: *Special Research Associate and Project Coordinator*

Special Research Associate of the Consortium for Higher Education Research in Asia (CHERA), affiliated with the University of Hong Kong, with responsibility for coordinating CHERA's research activities on network analysis and international research mobility across Asian higher education systems.

During 2020–2021, he co-coordinated, together with Prof. Hugo Horta, the project “*Research Network Propagation: Highly-Skilled Human Capital Cross-Border Mobility*” within the CHERA Asia–Europe cooperation framework.

The collaboration produced:

- A peer-reviewed article in *Quantitative Science Studies* (MIT Press): Horta, H., Cattaneo, M., & Shen, W. (2021). *Research network propagation: The impact of PhD students' temporary international mobility*. <https://doi.org/10.1162/qss a 00096>
- A conference paper presented at the *Atlanta Conference on Science and Innovation Policy (ATLC 2023)*: “*How many times should scholars move? The relationship between international academic mobility and research performance in the US and Europe.*”

5. COMPETITIVE RESEARCH PROJECTS

Participation as Principal Investigator and Scientific Coordinator in funded research programmes, integrating quantitative modeling, healthcare innovation, and interdisciplinary collaboration:

ANTHEM - Advanced Technologies for Human-Centered Medicine (MUR, PNRR Complementary Funds)

Period: *December 2022 - Present*

Role: *Scientific Coordinator and Principal Investigator (2 projects)*

Scientific coordinator and principal investigator of two four-year national projects under the ANTHEM programme (*Advanced Technologies for Human-Centered Medicine*), funded by the Italian Ministry of University and Research (*Decree n. 931/2022*).

He coordinates all academic, clinical, and industrial partners involved in both initiatives, ensuring scientific, operational, and reporting alignment.

The ANTHEM programme engages over 200 researchers across 10 universities, 8 healthcare and research institutions, and 5 private partners.

1. **Digital Triage at the Emergency Room** – *Total consortium budget: approx. €1.5M.*

Partners: ASST Bergamo Est, European Foundation for Biomedical Research (FERB).

Objective: development and validation of digital triage and patient-flow models, advancing from TRL 4 to TRL 7.

2. **Wearable Devices for Remote Monitoring of Parkinson's Disease and Frail Patients.** *Total consortium budget: approx. €2M.*

Partners: ASST Bergamo Est, FERB, ASST San Gerardo (Milan).

Objective: design and implementation of wearable sensor technologies for remote monitoring and healthcare resource optimization (from TRL 3 to TRL 7).

Both projects have led to the recruitment of new researchers (PhD and RTD-A) under his supervision, working on optimization, simulation, and digital health systems.

NATIONAL CENTRE FOR SUSTAINABLE MOBILITY – MOST

PNRR Mission 4, Component 2, Investment 1.4

Period: 2022 – Present

Role: Research member, Spoke 1 – Air Mobility

Member of the national research consortium funded under Italy's *NextGenerationEU* initiative (Decree n. 3138/2021).

Contributes to the *Air Mobility Spoke* (**total budget: €1.1M**) by developing **predictive and prescriptive models** for connectivity analysis, demand estimation, fleet and flight planning, environmental assessment, and socio-economic impact evaluation.

Consortium partners include **Leonardo, Thales Alenia Space, Avio Aero, Accenture, and Teoresi.**

PRIN PROJECT - “Emergency Medicine 4.0: An Integrated Data-Driven Approach to Improve Emergency Department Performance”

Period: December 2022 – Present

Role: *Unit Coordinator - University of Bergamo*

Coordinator of the Bergamo research unit within a national project involving the **Universities of Pisa and Padua**, focused on **data-driven modeling and performance optimization in emergency medicine**. **Funding: €230,584.**

A research fellowship (2024–2025) has been activated under his supervision.

6. INSTITUTIONAL ROLES AND ACTIVITIES

Participation in the institutional and governance bodies of the University of Bergamo, including doctoral boards, degree programme management, and academic committees.

- Member of two accredited PhD Boards:
 - **PhD in Health and Longevity (XXXIX Cycle)** – University of Bergamo, in partnership with the Mario Negri Institute for Pharmacological Research (*since 2023; founding year*).
 - **PhD in Technology, Innovation and Management (XXXVII Cycle)** – Joint programme between the University of Bergamo and the University of Naples “Federico II” (*since 2021*).
- **Coordinator of the “Engineering and Management for Health” track** within the Master’s Degree in *Ingegneria delle Tecnologie per la Salute (until 2024)*, with responsibility for academic planning, internship supervision, and liaison with healthcare institutions.
- **Responsible for study plan management for the *Management Engineering* programme (Bachelor’s and Master’s Degrees)**, supporting the GEV accreditation visit and ensuring academic and structural compliance (2019–2023).
- **Member of the University Disciplinary Committee (Collegio di Disciplina)** for the term 2021–2024, reappointed for 2025–2028.

8. SERVICE TO THE RESEARCH COMMUNITY

- **Associate Editor, *Higher Education Research & Development* (Taylor & Francis)** – August 2021 – July 2025
Handled submissions employing quantitative and analytical approaches to the study of higher education systems and institutional performance.
- **Editorial Board Member, *Journal of Higher Education Policy and Management* (Taylor & Francis)** – February 2023 – Present
Invited by the Editor-in-Chief to support the journal’s editorial process, with a focus on quantitative research and studies addressing the European and Mediterranean higher education context.

- **Editorial Review Board Member, *Higher Education* (Springer)** – October 2023 – Present
Appointed to the Editorial Review Board in recognition of academic reputation and contributions to the field of higher education research.
- **Peer-Review Activity**
Professor Cattaneo regularly serves as reviewer for **several high-impact international journals** in the areas of management, transportation, innovation, and higher education. His refereeing activity includes journals such as *Omega*, *Scientific Reports*, *PLOS ONE*, *Transportation Research Part A, C, D, and E*, *Transport Policy*, *Research Policy*, *Regional Studies*, *Papers in Regional Science*, *Journal of Air Transport Management*, *Transportmetrica Part A*, and *Journal of Transport Geography*. He also reviews for leading journals in higher education and innovation studies, including *Higher Education*, *Higher Education Quarterly*, *Journal of Higher Education Policy and Management*, *Evaluation and Program Planning*, *Scientometrics*, *Small Business Economics*, *Computers in Human Behavior*, *Technological Forecasting and Social Change*, and *Journal of Technology Transfer*.

9. HONORS AND DISTINCTIONS

- **Best Student Paper Award** – Air Transport Research Society (ATRS)
23rd ATRS World Conference, Amsterdam, The Netherlands – 2019
Paper: Birolini, S., Cattaneo, M., Malighetti, P., & Morlotti, C. “A Nested Logit Model for the Overall Air Passenger Trip”, later published in *Transportation Research Part E* as “Integrated Origin-Based Demand Modeling for Air Transportation.”
[Conference link](#)
- **Best Paper Award** – Journal of Purchasing and Supply Management (JPSM)
2020
Paper: Kalchschmidt, M., Birolini, S., Cattaneo, M., Malighetti, P., & Paleari, S. “The Geography of Suppliers and Retailers.”
- **Best Student Paper Award** – Air Transport Research Society (ATRS)
25th ATRS World Conference, Antwerp, Belgium – 2022
Paper: Kinene, A., Birolini, S., Cattaneo, M., & Granberg, T. A. “Electric Aircraft Charging Network Design for Regional Routes: A Novel Mathematical Formulation and Kernel Search Heuristic.”
[Conference link](#)
- **INFORMS – AAS Best Dissertation Award Committee Member (2021–2022)**
Appointed as member of the international committee of the *INFORMS Aviation Applications Society (AAS)* for the evaluation of the Best PhD Dissertation Award, recognizing outstanding doctoral research in air transport operations, predictive modeling, and decision support systems.
Committee members: Alessandro Bombelli (TU Delft, Chair), Mattia Cattaneo (University of Bergamo), Virginie Lurkin (Eindhoven University of Technology), Kai Wang (MIT), and Peng Wei (George Mason University).

[INFORMS AAS link](#)

- **Permanent Member – Airline Group of the International Federation of Operational Research Societies (AGIFORS)**

Since 2021

Elected permanent member of AGIFORS, the global professional body promoting operations research and advanced analytics in aviation, comprising over 2,800 members from 500+ airlines, manufacturers, and universities worldwide.

[AGIFORS link](#)

- **Editor's Choice** – European Journal of Operational Research (EJOR)

July 2023

Paper: Kinene, A., Biorlini, S., Cattaneo, M., & Granberg, T. A. "Electric Aircraft Charging Network Design for Regional Routes: A Novel Mathematical Formulation and Kernel Search Heuristic."

Selected as *Editor's Choice* by the journal's editorial board.

7. INTERNATIONAL OUTLOOK

Professor Mattia Cattaneo has developed a strong international profile through participation in major global conferences, visiting collaborations, and sustained research partnerships across Europe, North America, and Asia. His work has been presented at leading international venues such as:

- **Consortium of Higher Education Researchers (CHER)** – Jyväskylä, Finland
- **INFORMS Healthcare Conference** – Toronto, Canada
- **MSOM Conference** – London, UK
- **Regional Science Association International (NARSCA)** – Atlanta, USA
- **European Regional Science Association (ERSA)** – Lisbon, Portugal
- **Triple Helix Conference** – London, UK
- **Technology Transfer Society (T2S)** – New York, USA and Augsburg, Germany
- **Air Transport Research Society (ATRS)** – Rhodes, Greece
- **AilG Annual Meetings** – Various locations in Italy
- **ITEA Conference** – Barcelona, Spain
- **AAG Annual Meeting** – Boston, USA

He has also contributed invited talks and seminars, including:

- "From Algorithm to Application: Challenges and Opportunities in the Strategic Use of Artificial Intelligence in Healthcare" – ASST Bergamo Ovest (2025)

- “The impact of “incentive” systems on research outcome” – Bari Politecnico (2021)
- “Citation stacking” – University of Ghent, CHEGG (2018)
- “Moving abroad while doing a PhD in STEM fields at Chinese universities: Impact on Knowledge Creation and Networking” – University of Bath (2018)
- “International Comparison of Spanish and Italian University Systems” – Madrid (2016)

Professor Cattaneo maintains active **international collaborations** with leading academic institutions, including:

- **Massachusetts Institute of Technology (MIT)** – USA
- **University of Coimbra** – Portugal
- **Singapore University of Technology and Design (SUTD)** – Singapore
- **University of Agder** – Norway
- **University of Hong Kong** – China (SAR)
- **TU Delft** – The Netherlands
- **Reykjavik University** – Iceland
- **University of Toronto** – Canada
- **George Washington University** – USA
- **Linköping University** – Sweden

These collaborations span healthcare operations, technology policy, and higher education systems, reflecting a sustained commitment to internationalization, cross-border research, and global scientific leadership.

8. PROFESSIONAL RESEARCH EXPERIENCE

Research Policy, Evaluation, and National Planning (2021–present) – **Scientific Advisor for the European Co-operation in Science and Technology (COST) Association (Brussels)**, focusing on the empirical assessment of proposal evaluation processes and the design of a new *Digital Peer Evaluator* tool to enhance fairness and efficiency in funding allocation (annual budget: €80–90M). This work has evolved into two ongoing research papers (with M. Seeber, Univ. of Agder, and C. De Bernardi, Univ. of Milan) on (i) determinants of proposal evaluations and (ii) the network impact of COST funding.

Air Transport Systems and Regulation (2015–2023) – At the independent centre ICCSAI/ITSM (University of Bergamo), participated in competitively awarded, research-oriented projects on airport competitiveness, connectivity, and efficiency for institutions including ASSAEROPORTI, SEA & SACBO, GESAC, and Fondazione Marche. The work

combined data analytics, demand modelling, and yardstick competition methods, producing both applied reports and peer-reviewed outcomes (e.g. *Competition and Regulation in Network Industries*, 2020).

Transportation Policy and Infrastructure (2020–2022) – **Research consultant** for Royal Schiphol Group, Airlines for Europe, Aeroporti di Roma, Toscana Aeroporti, Italian Ministry of Infrastructure, CIRA, and Confindustria Bergamo. Delivered quantitative evaluations of air-network welfare, SES “cost of non-Europe,” environmental and CO₂ impact assessments, and long-term (2035–2050) fleet-forecasting models.

Digital Health and Emergency Care (2020–present) – **Scientific lead for digital-health research** at the University of Bergamo (centres ITSM and CCSE) in collaboration with FERB. Designed and coordinated regional projects on digital triage and ED access digitalization across Lombardy hospitals, integrating simulation, text analysis, and preference-based adoption modelling. In 2024, **principal investigator** for the *RSA Performance Monitoring Project* (ATS Bergamo and ACRA), applying clustering and interactive analytics to assess residential-care performance. In 2025, a new applied research line was initiated, focusing on the development of a digital twin framework for the prosthetics domain, explored through both technological and managerial-economic lenses.

9. PUBLICATIONS

Higher Education, Science Policy, and Research Evaluation

- M. Seeber, M. Cattaneo, C. Debernardi, D.G. Pina (2025). *The effect of public funding on long-term relocation of experienced researchers: an analysis of the Marie Curie Career Integration Grant*. **Quantitative Science Studies**, 6, 281–304.
- C. Debernardi, M. Seeber, M. Cattaneo (2024). *Thirty years of climate change research: A fine-grained analysis of geographical specialization*. **Environmental Science & Policy**, 152, 103663.
- M. Seeber, J. Vlegels, M. Cattaneo (2022). *Conditions that do or do not disadvantage interdisciplinary research proposals in project evaluation*. **Journal of the Association for Information Science and Technology**, 73(8), 1154–1172.
- A. Civera, M. Cattaneo, M. Meoli, S. Paleari, M. Seeber (2021). *Universities' responses to crises: The influence of competition and reputation on tuition fees*. **Higher Education**, 82(1), 61–84.
- H. Horta, S. Birolini, M. Cattaneo, W. Shen, S. Paleari (2021). *Research network propagation: The impact of PhD students' temporary international mobility*. **Quantitative Science Studies**, 2(1), 129–154.

- M. Cattaneo, A. Civera, M. Meoli, S. Paleari (2020). *Analysing policies to increase graduate population: Do tuition fees matter?* **European Journal of Higher Education**, 10(1), 10–27.
- M. Seeber, M. Meoli, M. Cattaneo (2020). *How do European higher education institutions internationalize?* **Studies in Higher Education**, 45(1), 145–162.
- M. Cattaneo, H. Horta, M. Meoli (2019). *Dual appointments and research collaborations outside academia: Evidence from the European academic population.* **Studies in Higher Education**, 44(11), 2066–2080.
- M. Cattaneo, H. Horta, P. Malighetti, M. Meoli, S. Paleari (2019). *The relationship between competition and programmatic diversification.* **Studies in Higher Education**, 44(7), 1222–1240.
- M. Cattaneo, P. Malighetti, S. Paleari (2019). *The Italian brain drain: cream and milk.* **Higher Education**, 77(4), 603–622.
- M. Seeber, M. Cattaneo, M. Meoli, P. Malighetti (2019). *Self-citations as strategic response to the use of metrics for career decisions.* **Research Policy**, 48(2), 478–491.
- M. Cattaneo, H. Horta, P. Malighetti, M. Meoli, S. Paleari (2017). *Effects of the financial crisis on university choice by gender.* **Higher Education**, 74(5), 775–798.
- M. Seeber, M. Cattaneo, J. Huisman, S. Paleari (2016). *Why do higher education institutions internationalize? An investigation of the multilevel determinants of internationalization rationales.* **Higher Education**, 72(5), 685–702.

Healthcare and Digital Health

- A. Diglio, C. Morlotti, G. Bruno, M. Cattaneo, S. Paleari, C. Piccolo (2024). *Improving patients' accessibility to primary care services: the Italian reorganization of territorial medicine.* **Health Care Management Science** (just accepted).
- C. Morlotti, M. Cattaneo, F. Paleari, F. Manelli, F. Locati (2025). *Predicting emergency department revisits with hospitalization in a multihospital network: a large-scale assessment.* **European Journal of Emergency Medicine**, 32(2), 141–143.
- C. Morlotti, M. Cattaneo, S. Paleari, F. Manelli, F. Locati (2024). *The digitalization of emergency department triage: the perspectives of health professionals and patients.* **BMC Health Services Research**, 24(1), 1406.
- M. Cattaneo, P. Malighetti, D. Spinelli (2017). *Estimating receiver operative characteristic curves for time-dependent outcomes: the stroccurve package.* *The Stata Journal*, 17(4), 1015–1023.

Transport and Mobility Systems

- A. Kinene, S. Birolini, M. Cattaneo, T.A. Granberg (2023). *Electric aircraft charging network design for regional routes: A novel mathematical formulation and kernel search heuristic*. **European Journal of Operational Research**, 309(3), 1300–1315.
- M. Cattaneo, C. Morlotti, P. Malighetti, R. Redondi (2023). *Airports and population density: where benefits outweigh costs*. **Regional Studies**, 57(3), 576–589.
- S. Birolini, E. Besana, M. Cattaneo, R. Redondi, J.M. Sallan (2022). *An integrated connection planning and passenger allocation model for low-cost carriers*. **Journal of Air Transport Management**, 99, 102160.
- M. Cattaneo, S. Birolini, P. Malighetti, S. Paleari (2022). *A grid-based evolutionary spatial algorithm for airline service design in multi-airport systems*. **Transportation Research Procedia**, 62, 416–423.
- N. Avogadro, M. Cattaneo, S. Paleari, R. Redondi (2021). *Replacing short-medium haul intra-European flights with high-speed rail: Impact on CO₂ emissions and regional accessibility*. **Transport Policy**, 114, 25–39.
- S. Birolini, A. Jacquillat, M. Cattaneo, A.P. Antunes (2021). *Airline network planning: Mixed-integer non-convex optimization with demand–supply interactions*. **Transportation Research Part B**, 154, 100–124.
- S. Birolini, A.P. Antunes, M. Cattaneo, P. Malighetti, S. Paleari (2021). *Integrated flight scheduling and fleet assignment with improved supply-demand interactions*. **Transportation Research Part B**, 149, 162–180.
- S.V. Gudmundsson, M. Cattaneo, R. Redondi (2021). *Forecasting temporal world recovery in air transport markets in the presence of large economic shocks: The case of COVID-19*. **Journal of Air Transport Management**, 91, 102007.
- S. Birolini, M. Cattaneo, P. Malighetti, C. Morlotti (2020). *Integrated origin-based demand modeling for air transportation*. **Transportation Research Part E**, 142, 102050.
- C. Morlotti, S. Birolini, M. Cattaneo, R. Redondi, P. Deforza (2020). *Noise assessment of local airports: The case of Milan Bergamo*. In **Air Transport and Regional Development Policies** (pp. 281–300). Routledge.
- N. Avogadro, S. Birolini, M. Cattaneo, P. Malighetti, C. Morlotti, R. Redondi (2020). *Yardstick regulation in a competitive context? The case of the Italian airports*. **Competition and Regulation in Network Industries**, 21(3), 244–274.
- M. Cattaneo, P. Malighetti, R. Redondi, A. Salanti (2018). *Changes in frequencies and price variations on point-to-point routes: The case of easyJet*. **Transportation Research Part A**, 112, 60–70.
- M. Cattaneo, P. Malighetti, M. Percoco (2018). *The impact of intercontinental air accessibility on local economies: Evidence from the de-hubbing of Malpensa airport*. **Transport Policy**, 61, 96–105.

- C. Morlotti, M. Cattaneo, P. Malighetti, R. Redondi (2017). *Multi-dimensional price elasticity for leisure and business destinations in the low-cost air transport market: Evidence from easyJet*. **Tourism Management**, 61, 23–34.
- M. Cattaneo, P. Malighetti, S. Paleari, R. Redondi (2017). *Evolution of the European network and implications for self-connection*. **Journal of Air Transport Management**, 65, 18–28.

Working papers

- M. Seeber, M. Cattaneo, S. Birolini. *Academic publishing business models: self-citations and the selectivity-reputation trade-off*. **Submitted to Quantitative and Science Studies**.
- M. Cattaneo, C. Morlotti, F. Manelli, S. Paleari. *From Clinical-Only to Resource-Informed Triage: Reduced Waiting Times in Emergency Departments*. **Submitted to Production and Operations Management (POM) Journal**.
- M. Seeber, M. Meoli, M. Cattaneo. *Connecting scientists across divides through temporary proximity: evidence from COST Actions*. **Submitted to Research Policy**.
- M. Cattaneo. *When to Wait, Whom to Serve: Priority Scheduling of Patients under Progressively Revealed Information*.
- D. Marchese, M. Cattaneo, S. Birolini, S. Paleari. *Post-triage patient reallocation in emergency department networks*. Accepted for presentation at the **2025 MSOM Conference (Manufacturing & Service Operations Management Society)**.
- M. Cattaneo, S. Birolini, D. Marchese, L. Zanchi. *A coordinated and integrated dispatchment model for non-urgent patients accessing emergency departments in a hospital network*.
- M. Cattaneo, C. Morlotti, D. Marchese, F. Manelli. *A clinical complexity- and acuity-based model to improve efficiency of emergency department operations*.
- D. Marchese, S. Birolini, M. Cattaneo. *Real-Time Patient Reallocation: A Reinforcement Approach*.
- M. Cattaneo, D. Marchese, S. Birolini. *Emergency Departments demand management: a New Scheduling Service*.

10.RESEARCH TRACK RECORD

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47 Papers (Scopus)

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Dalmine, 06/10/2025

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