Francesca Maggioni
Curriculum Vitae

Personal Information

Name and Surname: Francesca Maggioni
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Current Academic Appointments

- (Oct. 2019 – now) **Associate Professor** in Operations Research (Academic recruitment field 01/A6, Academic discipline MAT/09).
  - (Oct. 2019 – Sep. 2021) Associate Professor at the Department of Economics, University of Bergamo (I).
  - (Oct. 2021 – now) Associate Professor at the Department of Management, Information and Production Engineering, University of Bergamo (I).
  - (Jan. 2022 – Jun. 2022) Maternity leave.
- **Current Academic Services**
  - (2015 – present) **Referent Person** for the Erasmus International Exchange Program of the University of Bergamo with Kaunas University of Technology (KTU), (LT) https://en.unibg.it/accordi_accordi/accordo-di-mobilita-kaunas-lituania.
  - (2021 – now) **Deputy Coordinator** of the joint PhD program in Applied Economics & Management, University of Pavia and University of Bergamo, https://www.unibg.it/ricerca/lavorare-ricerca/dottorati-ricerca/dottorati-ricerca/applied-economics-and-management.
  - (2021 – now) **Member** of the council of *Ingegneria Informatica*, Department of Management, Information and Production Engineering, University of Bergamo (I).

- (2021 – now) **Referent Person** for *Sportello Matematico per l'Innovazione e le Imprese* at the Department of Management, Information and Production Engineering of the University of Bergamo (I).
- (2022 – now) **Coordinator** of the research center CQIIA-MatNet for teaching of mathematics and its applications of the University of Bergamo (I), `https://cqiia.unibg.it/it/ricerca/matnet`.
- (2022 – now) **Member** of the committee for the activation project of an interdepartmental bachelor degree between the Department of Economics and Department of Management, Information and Production Engineering of the University of Bergamo (I).
- (2023 – 2026) **Member** of the Research Committee (*Consiglio della Ricerca*) of the Department of Management, Information and Production Engineering, University of Bergamo (I).
- (2024 – now) **Chair of Jury** for the *CMS Student Best Paper Prize*, Joint European Conference on Stochastic Optimization and Computational Management Science Conference (ECSO-CMS 2024), Stockholm (SE), `https://ecso-cms2024.blogs.dsv.su.se/phd-forum/`.
- (2024 – now) **Member of Jury** of the *Tucker Prize*, Mathematical Optimization Society, 25th International Symposium of Mathematical Programming (ISMP 2024), Montréal (CA), `https://www.mathopt.org/?nav=tucker_call`.
- (2024 – now) **Admitted** to the selection for the composition of the **Group of Experts (GEV)** of the scientific area *01 Mathematics and Computer Sciences* of VQR 2020–2024.

- **Current Elected Positions in International Scientific Boards**
  - (2018 – now) **National Coordinator** of the AIRO Thematic Section of Stochastic Programming (with P. Beraldi), `https://www.airo.org/en/airo-stochastic-programming/`.
  - (2022 – now) Elected **Chair** and **Coordinator** of the EURO Working Group on Stochastic Optimization (EWGSO), `https://www.mii.lt/ewgso/index.php?page,board.en`.

- **Current Research Projects**
  - (2022 – 2025) **Principal investigator** of PRIN 2020 "*Urban Logistics and sustainable TRAnsportation: OPtimization under uncertainTY and MAchine Learning (ULTRA OPTYMAL)*", granted by the Italian University and Research Ministry, project code 20207C8T9M, score 100/100, 532800 euros, `https://ultraoptymal.unibg.it/`.
  - (2022 – now) **Member** of the PNRR Project MOST (*Centro Nazionale per la mobilità sostenibile*), Spoke 5, `https://www.centronazionalemost.it/`.
  - **Local Investigator** and **Referent Person** of the University of Bergamo of the National Project "*Piano Lauree Scientifiche 2021–2023 (Matematica)*", National Coordinator: M. Maracci, University of Pisa (2023 – 2025), 1250000 euros.

– (2024 – now) **Member** of the annual research project (*Fondi di Ateneo ex 60%*) granted by the University of Bergamo (principal investigator Prof. L. Brandolini): "*Analisi Matematica ed Applicazioni*".

- **Current Editorial Activities**
  - (2016 – now) **Associate Editor** of the Journal: *Computational Management Science* (Springer).
  - (2020 – now) **Associate Editor** of the Journal: *EURO Journal on Computational Optimization* (Springer).
  - (2022 – now) **Associate Editor** of the Journal: *TOP An Official Journal of the Spanish Society of Statistics and Operations Research* (Springer).
  - (2023 – now) **Associate Editor** of the Journal: *Networks* (Wiley).
  - (2023 – now) **Associate Editor** of the Journal: *International Transactions in Operational Research* (Wiley).
  - (2023 – now) **Guest Editor** of the special issue of *Annals of Operational Research*, "Recent Advances in Stochastic and Robust Optimization", associated to the 33^{rd} European Conference on Operational Research, Copenhagen (DK).
  - (2023 – now) **Guest Editor** of the special issue of *Computational Management Science*, "Stochastic Optimization: Methodological Advancements and Modern Applications", associated to the the 2^{nd} Copenhagen School of Stochastic Programming and Joint European Conference on Stochastic Optimization and Computational Management Science Conference (ECSO-CMS 2024), Stockholm (SE).
- **Current Roles in the Organization of Conferences or Schools**
  - (Jul. 4 – 5, 2024) **Chair of the Program Committee** of Joint European Conference on Stochastic Optimization and Computational Management Science Conference (ECSO-CMS 2024), (co-chairs: A. Siddiqui, S.E. Fleter and D. Barro), Stockholm (SE), `https://equinocs.springernature.com/service/ECSO-CMS2024`.
  - (Sep. 8 – 12, 2024) **Member of the Program Committee** of the International Conference on Optimization and Decision Science (ODS 2024), Badesi, Sardinia (I), `https://www.airoconference.it/ods2024/committees` .
  - (Sep. 15 – 25, 2024) **Chair of the Organizing and Program Committee** of EURO Summer Institute: Decision-making under Uncertainty for Commodities and Financial Markets (co-chair: R. D'Ecclesia), Ischia, Naples (I) `https://esi2024.unibg.it`.
  - (Sep. 25 – 27, 2024) **Member of the Scientific Committee** of INFORMS TSL 2024: Optimizing Transportation and Logistics under Uncertainty, Nantes (F).
- (2014 – now) **Adjunct Professor** (*Professore a Contratto*) in Operations Research at the Faculty of Mathematical, Physical and Natural Sciences, Università Cattolica del Sacro Cuore of Brescia (I).

Former Positions

- (Nov. 2005 – Sep. 2006) **Research fellow** (*Assegnista di ricerca*) at the Department of Mathematics, Statistic, Computer Science and Applications "Lorenzo Mascheroni", Faculty of Economics, University of Bergamo (I).
  Project title: Applications of stochastic programming to energy and finance, supervisor: Prof. Marida Bertocchi.
- (Oct. 2006 – Sep. 2011) **Assistant Professor** (*Ricercatore a tempo indeterminato*) in Mathematical Methods of Economy, Finance and Actuarial Sciences (Academic discipline SECS−S/06) at the Department of Mathematics, Statistics, Computer Science and Applications "Lorenzo Mascheroni", Faculty of Economics, University of Bergamo (I).
- (Oct. 2011 – Sep. 2019) **Assistant Professor** *(Ricercatore a tempo indeterminato)* in Operations Research (Academic discipline MAT/09) at the Department of Management, Economics and Quantitative Methods, University of Bergamo (I).

Education

- (Dec. 4, 2006) **Ph.D. in Pure and Applied Mathematics** at University of Milano-Bicocca (I).
  Title of the thesis: Kinematics of elastic filaments and magnetic relaxation of flux tubes. Supervisor: Prof. Renzo L. Ricca.
- (Sep. 18, 2003) **MSc in Mathematics** at Università Cattolica del Sacro Cuore of Brescia (I), mark: **110 cum Laude**.
  Title of the thesis: *Relazioni fra K-loop e strutture di riflessione con l'applicazione al modello di Poicaré di piano iperbolico.* Supervisor: Prof. Silvia Pianta.

Scientific Qualifications

She obtained the Italian scientific qualifications as **Associate Professor** in:

- Operations Research (*Ricerca Operativa*, Academic recruitment field 01/A6, Academic discipline MAT/09), legal soundness: Mar. 30, 2017 – Mar. 30, 2023.
- Mathematical Methods of Economy, Finance and Actuarial Sciences (*Metodi Matematici dell'Economia e delle Scienze Attuariali e Finanziarie*, Academic recruitment field 13/D4, Academic discipline SECS−S/06), legal soundness: Apr. 5, 2017 – Apr. 5, 2023.

She obtained the Italian scientific qualifications as **Full Professor** in:

- Operations Research (*Ricerca Operativa*, Academic recruitment field 01/A6, Academic discipline MAT/09), legal soundness: Sep. 24, 2018 – Sep. 24, 2029.

- Mathematical Methods of Economy, Finance and Actuarial Sciences (*Metodi Matematici dell'Economia e delle Scienze Attuariali e Finanziarie*, Academic recruitment field 13/D4, Academic discipline SECS−S/06), legal soundness: Oct. 8, 2018 − Oct. 8, 2029.

Elected Positions in International Scientific Boards

She has taken the following responsibilities in international scientific boards:

- (2016 − 2018) **Elected member** and **Secretary** of the EURO Working Group on Stochastic Optimization (EWGSO).
- (2016 − 2018) **Elected member** and **Treasurer** of the governing board of the Stochastic Programming Society, Committee on Stochastic Programming (COSP).
- (2019 − 2021) **Elected member** and **Treasurer** of the EURO Working Group on Stochastic Optimization (EWGSO).
- (2019 − 2023) **Elected member** and **Secretary** of the governing board of the Stochastic Programming Society, Committee on Stochastic Programming (COSP).
- (2018 − now) **National Coordinator** with P. Beraldi of the AIRO Thematic Section of Stochastic Programming, `https://www.airo.org/en/airo-stochastic-programming/`.
- (2022 − now) Elected **Chair** and **Coordinator** of the EURO Working Group on Stochastic Optimization (EWGSO), `https://www.mii.lt/ewgso/index.php?page,board.en`.

Awards and Merits

She has been awarded of the following prizes and merits:

- (2000 − 2002) **Best student award**, Faculty of Mathematics, Physics and Natural Sciences, Università Cattolica del Sacro Cuore of Brescia.
- (2003 − 2006) **Full Ph.D. Scholarship** granted by the Italian Ministry of Education, University and Research for the doctoral studies.
- (Sep. 15 − 20, 2008) **Best poster award**. Conference on Knots and other Entanglements in Biopolymers: Topological and Geometrical Aspects of DNA, RNA and Protein Structures, Trieste.
  Title of the poster: Modeling filament kinematics for nucleosome and viral spooling.
- (2009) **Progetto Giovani GNFM 2009 award** granted by the Italian group of Applied Mathematics (*Fisica Matematica*).
  Title of the project: Energy of knotted DNA filaments.

- (2010) **Best paper award**. Selection of an article as one of the best research work of 2010, including a special mention in the issue of Virtual Journal of Atomic Quantum Fluids; Section: Topological excitations of quantum fluids.
  Title of the article: Velocity, energy and helicity of vortex knots and unknots. *Phys. Rev. E*, **82**(2), 026309–026317 (with C.F. Barenghi, S. Alamri and R.L. Ricca).

- (Nov. 13 – 16, 2011) **Interactive Poster Session award**. INFORMS Conference, Charlotte, North Carolina (USA), Second place winner.
  Title of the poster: Optimal kinematics of supercoiled filaments.

- (2011) **Research award "5 per 1000"** for the research activity carried out in the years 2008−2009−2010, sponsored by the University of Bergamo (1500 euros).

- (Oct. 14 – 17, 2012) **Interactive Poster Session award**. INFORMS Conference Phoenix, Arizona (USA), Semi-finalist.
  Title of the poster: Modeling chromatin fiber folding for human embryonic stem cells and cancer cells.

- (2014) **Best paper award**. Selection of an article by the Editorial Board of the Journal of Physics A: Mathematical and Theoretical as one of the best research works of 2014, including a special mention in the JPA 2014 Highlights compilation.
  Title of the article: On the groundstate energy spectrum of magnetic knots and links, *Journal of Physics A: Mathematical and Theoretical*, **47**(20), 205501–205509 (with R.L. Ricca).

- (2015) **Research award "5 per 1000"** for the research activity carried out in the years 2012−2013−2014, sponsored by the University of Bergamo (1332 euros).

- (Jan. 2016) **Best Project award** based on a selection among seven Italian Research Groups proposals. In collaboration with prof. L. Bertazzi (University of Brescia), *Centrale del Latte di Vicenza S.P.A.*, and *Sportello Matematico per l'industria italiana.*
  Title of the project: *Potenziamento dei metodi di previsione delle vendite dei prodotti conto terzi e programmazione ottimale dell'approvvigionamento di materie prime e di materiali per l'imballaggio ed il confezionamento.*

- (Aug. 2017) **Outstanding contribution in reviewing award** for the Journal *European Journal of Operations Research* (Elsevier).

- (Dec. 2017) **Outstanding contribution in reviewing award** for the Journal *Computers & Operations Research* (Elsevier).

- (Dec. 2017) **Grant FFABR**. *Fondo per il finanziamento delle attività base di ricerca.* The fund has been granted by the Italian Ministry of Education (3000 euros).

Research Interests

Her research interests concern both methodological and applicative aspects for optimization under uncertainty. From a methodological point of view, she is interested in developing different types of bounds and approximation for stochastic, robust and distributionally robust multistage and multi-horizon optimization problems. These methods are applied to solve optimization problems in machine learning, logistics, transportation, energy markets and pension funds.

Former research activity was aimed at the study of geometric, topological and energetic aspects of knotted filaments in different physical contexts like elastic filaments, ideal magneto-hydrodynamics and Euler fluids.
More specifically the contributions can be summarized as follows.
Methodological contributions:

- developing bounds and approximations for:
  - multistage mixed integer stochastic optimization with and without risk measures;
  - chance-constrained stochastic optimization;
  - multi-horizon stochastic optimization;
  - stochastic standard quadratic optimization;
  - distributionally robust mixed-integer optimization;
- evaluating the quality of the expected value solution in stochastic programming;
- investigating partial Benders decomposition for two-stage stochastic integer programming;
- analyzing the sample complexity for multistage robust optimization;
- analyzing the worst-case performance of the rolling horizon approach in stochastic programming;
- defining new robust and distributionally robust optimization approaches for linear/non-linear support vector machine and twin parametric margin support vector machine with fairness constraints.

Applications:

- stochastic and robust optimization models for logistics and transportation;
- stochastic and robust optimization models for waste-management;
- stochastic optimization for workforce production planning;
- chance constrained optimization for blend planning;
- stochastic and robust optimization models in energy;
- stochastic optimization models for mobile ad-hoc network;
- stochastic optimization models for pension funds management;
- robust and distributionally robust optimization models for machine learning.

Indicators of Scientific Production

- SCOPUS indicators: Documents 54; Citations 720; h-index: 16;
- GOOGLE SCHOLAR global indicators: Citations 1406; h-index 22; i10-index 35;
- GOOGLE SCHOLAR indicators from 2019: Citations 814; h-index 16; i10-index 23.

List of Publications

Articles in International Journals with Peer-Review Process

[1] Maggioni, F. & Ricca, R.L. (2006) Writhing and coiling of closed filaments. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **462**, 3151–3166, ISSN: 1471-2946, doi: 10.1098/rspa.2006.1719.

[2] Maggioni, F. (2007) Cinematiche di filamenti elastici e rilassamento magnetico di tubi di flusso. *Bollettino U.M.I. La Matematica nella Società e nella Cultura*, Serie VIII, Vol. X-A, Agosto 2007, 267–270, ISSN: 0392-4033.

[3] Ricca, R.L. & Maggioni, F. (2008) Multiple folding and packing for DNA modeling. *Computers and Mathematics with Applications*, **55**, 1044–1053, ISSN: 0898-1221, doi: 10.1016/j.camwa.2006.12.084.

[4] Maggioni, F., Vespucci, M.T., Allevi, E., Bertocchi, M.I. & Innorta, M. (2008) A two-stage stochastic optimization model for a gs sale retailer. *Kybernetika*, **44**(2), 277–296, ISSN: 0023-5954.

[5] Maggioni, F., Kaut, M. & Bertazzi, L. (2009) Stochastic optimization models for a single-sink transportation problem. *Computational Management Science*, **6**(2), 251–267, ISSN: 1619-697X, doi: 10.1007/s10287-008-0086-z.

[6] Maggioni, F., Alamri, S., Barenghi, C.F. & Ricca R.L. (2009) Kinetic energy of vortex knots and unknots. *Il Nuovo Cimento C*, **32**(1), 133–142, ISSN: 2037-4909, doi: 10.1393/ncc/i2009-10351-6.

[7] Maggioni, F., Potra, F.A., Bertocchi, M.I. & Allevi, E. (2009) Stochastic second-order cone programming in mobile ad hoc networks. *Journal of Optimization Theory and Applications*, **143**, 309–328, ISSN: 0022-3239, doi: 10.1007/s10957-009-9561-0.

[8] Maggioni, F. & Ricca R.L. (2009) On the groundstate energy of knotted magnetic flux tubes. *Proceeding of the Royal Society of London. Series A*, **465**(2109), 2761–2783, ISSN: 1364-5021, doi: 10.1098/rspa.2008.0536.

[9] Maggioni, F., Bertocchi M., Vespucci M.T., Giacometti R., Innorta M. & Allevi E. (2010) A stochastic optimization model for gas retail with temperature scenarios and oil price parameters. *Ima Journal of Management Mathematics*, **21**, 149–163, ISSN: 1471-678X, doi: 10.1093/imaman/dpp011.

[10] Maggioni, F., Alamri, S., Barenghi, C.F. & Ricca R.L. (2010) Velocity, energy, and helicity of vortex knots and unknots. *Physical Review E, Statistical, Nonlinear, and Soft Matter Physics*, **82**(2), 026309–026317, ISSN: 1539-3755, doi: 10.1103/PhysRevE.82.026309 (Selected for the Sepetember 2010 issue of *Virtual Journal of Atomic Quantum Fluids; Section: Topological excitations of quantum fluids*).

[11] Maggioni, F. & Wallace, S.W. (2012) Analyzing the quality of the expected value solution in stochastic programming. *Annals of Operations Research*, **200**(1), 37–54, ISSN: 0254-5330, doi: 10.1007/s10479-010-0807-x.

[12] Vespucci, M.T., Maggioni, F., Bertocchi, M.I. & Innorta, M. (2012) A stochastic model for the daily coordination of pumped storage hydro plants and wind power plants. *Annals of Operations Research*, **193**(1), 91–105, ISSN: 0254-5330, doi: 10.1007/s10479-010-0756-4.

[13] Maggioni, F., Potra, F. & Bertocchi, M. (2013) Optimal kinematics of a looped filament. *Journal of Optimization Theory and Applications*, **159**, 489–506, ISSN: 0022-3239, doi: 10.1007/s10957-013-0330-8.

[14] Maggioni, F., Allevi, E. & Bertocchi, M. (2014) Bounds in multistage linear stochastic programming. *Journal of Optimization Theory and Applications*, **163**(1), 200–229, ISSN: 0022-3239, doi: 10.1007/s10957-013-0450-1.

[15] Al-Baali, M., Spedicato, E.G. & Maggioni, F. (2014) Broyden's quasi-Newton methods for a nonlinear system of equations and unconstrained optimization: a review and open problems. *Optimization, Methods and Software*, **29**(5), 937–954, ISSN: 1055-6788, doi: 10.1080/10556788.2013.856909.

[16] Ricca, R.L. & Maggioni, F. (2014) On the groundstate energy spectrum of magnetic knots and links. *Journal of Physics A: Mathematical and Theoretical*, **47**(20), 205501–205509, ISSN: 1751-8113, doi: 10.1088/1751-8113/47/20/205501.

[17] Bertazzi, L. & Maggioni, F. (2015) Solution approaches for the stochastic capacitated traveling salesmen location problem with recourse. *Journal of Optimization Theory and Applications*, **166**(1), 321–342, ISSN: 0022-3239, doi: 10.1007/s10957-014-0638-z.

[18] Alzalg, B., Maggioni, F. & Vitali, S. (2016) Homogeneous self-dual methods for symmetric cones under uncertainty. *Far East Journal of Mathematical Sciences: FJMS*, **99**(11), 1603–1632, ISSN: 0972-0871, doi: 10.17654/MS099111603.

[19] Maggioni, F. & Pflug, G.C. (2016) Bounds and approximations for multistage stochastic programs. *Siam Journal on Optimization*, **26**(1), 831–855, ISSN: 1095-7189, doi: 10.1137/140971889.

[20] Maggioni, F., Allevi, E. & Bertocchi, M. (2016) Monotonic bounds in multistage mixed-integer stochastic programming. *Computational Management Science*, **13**(3), 423–457, ISSN: 1619-697X, doi: 10.1007/s10287-016-0254-5.

[21] Perboli, G., Gobbato, L. & Maggioni, F. (2017) A progressive hedging method for the multi-path travelling salesman problem with stochastic travel times. *IMA Journal of Management Mathematics*, **28**(1), 65–86, ISSN: 1471-6798, doi: 10.1093/imaman/dpv024.

[22] Maggioni, F., Potra, F.A. & Bertocchi, M. (2017) A scenario-based framework for supply planning under uncertainty: stochastic programming versus robust optimization approaches. *Computational Management Science*, **14**(5), 5–44, ISSN: 1619-6988, doi: 10.1007/s10287-016-0272-3.

[23] Alonso-Ayuso, A. & Maggioni, F. (2017) Special issue on the 13th international conference on computational management science. *Computational Management Science*, **14**(4), 461–463, ISSN: 1619-697X, doi: 10.1007/s10287-017-0292-7.

[24] Bertazzi, L. & Maggioni, F. (2018) A stochastic multi-stage fixed charge transportation problem: worst-case analysis of the rolling horizon approach. *European Journal of Operational Research*, **267**(2), 555–569, ISSN: 0377-2217, doi: 10.1016/j.ejor.2017.12.004.

[25] Crainic, G.T., Maggioni, F., Perboli, G. & Rei, W. (2018) Reduced cost-based variable fixing in two-stage stochastic programming. *Annals of Operations Research*, 1–37 ISSN: 0254-5330, doi: 10.1007/s10479-018-2942-8.

[26] Kabašinskas, A., Maggioni, F., Šutienė, K. & Valakevičius, E. (2019) A multistage risk-averse stochastic programming model for personal savings accrual: the evidence from Lithuania. *Annals of Operations Research*, 1–28, ISSN: 0254-5330, doi: 10.1007/s10479-018-3100-z.

[27] Gambella, C. Maggioni, F. & Vigo, D. (2019) A stochastic programming model for a tactical solid waste management problem. *European Journal of Operational Research*, **273**(2), 684–694, ISSN: 0377-2217, doi: 10.1016/j.ejor.2018.08.005.

[28] Maggioni, F., Cagnolari, M., Bertazzi, L. & Wallace, S.W. (2019) Stochastic optimization models for a bike-sharing problem with transshipment. *European Journal of Operational Research*, **276**(1), 272–283, ISSN: 0377-2217, doi: 10.1016/j.ejor.2018.12.031.

[29] Maggioni, F. & Pflug, G.C. (2019) Guaranteed bounds for general non-discrete multistage risk-averse stochastic optimization programs. *Siam Journal on Optimization*, **29**(1), 454–483, ISSN: 1095-7189, doi: 10.1137/17M1140601.

[30] Maggioni, F., Allevi, E. & Tomasgard, A. (2019) Bounds for multi-horizon stochastic programs. *Annals of Operations Research*, **292**, 605–625, ISSN: 0254-5330, doi: 10.1007/s10479-019-03244-9.

[31] Maggioni, F., Cagnolari, M. & Bertazzi, L. (2019) The value of the right distribution in stochastic programming with application to a newsvendor problem. *Computational Management Science*, **16**, 739–758, ISSN: 1619-697X, doi: 10.1007/s10287-019-00356-2.

[32] Cavagnini, R. Hewitt, M. & Maggioni, F. (2020) Workforce production planning under uncertain learning rates. *International Journal of Production Economics*, **225**, 107590, ISSN: 0925-5273, doi: 10.1016/j.ijpe.2019.107590.

[33] Consigli, G., Dentcheva, D. & Maggioni, F. (2020) Preface: Stochastic optimization: theory and applications: Special issue in memory of Marida Bertocchi. *Annals of Operations Research*, **292**, 575–580, ISSN: 0254-5330, doi: 10.1007/s10479-020-03672-y.

[34] Crainic, G.T., Hewitt, M., Maggioni, F. & Rei, W. (2021) Partial Benders decomposition: general methodology and application to stochastic network design. *Transportation Science*, **55**(2), 414–435, ISSN: 0041-1655, doi: 10.1287/trsc.2020.1022.

[35] Bertazzi, L., Deilami Moezi, S. & Maggioni, F. (2021) The value of integration of full container load, less than container load and air freight shipments in vendor–managed inventory systems. *International Journal of Production Economics*, **241**, 108260, ISSN: 0925-5273, doi: 10.1016/j.ijpe.2021.108260.

[36] Gambarelli, G., Gervasio, D., Maggioni, F. & Faccini, D. (2022) A Stackelberg game for the Italian tax evasion problem. *Computational Management Science*, **19**, 295–307, ISSN: 1619-697X, doi: 10.1007/s10287-021-00416-6.

[37] Peng, S., Maggioni, F. & Lisser, A. (2022) Bounds for probabilistic programming with application to a blend planning problem. *European Journal of Operational Research*, **297**(3), 964-–976, ISSN: 0377-2217, doi: 10.1016/j.ejor.2021.09.023.

[38] Bomze, I., Gabl, M., Maggioni, F. & Pflug, G.C. (2022) Two-stage stochastic standard quadratic optimization. *European Journal of Operational Research*, **299**(1), 21–34, ISSN: 0377-2217, doi: 10.1016/j.ejor.2021.10.056.

[39] Cavagnini, R., Bertazzi, L. & Maggioni, F. (2022) A rolling horizon approach for a multistage stochastic fixed-charge transportation problem with transshipment. *European Journal of Operational Research*, **301**(3), 912–922, ISSN: 0377-2217, doi: 10.1016/j.ejor.2021.11.037.

[40] Lauria, D., Consigli, G. & Maggioni, F. (2022) Optimal chance-constrained pension fund management through dynamic stochastic control. *OR Spectrum*, **44**, 967–1007, ISSN: 0171-6468, doi: 10.1007/s00291-022-00673-0.

[41] Faccini, D., Maggioni, F. & Potra, F.A. (2022) Robust and distributionally robust optimization models for support vector machine. *Computers and Operations Research*, **147**, 105930, ISSN: 0305-0548, doi: 10.1016/j.cor.2022.105930.

[42] Narum, B.S., Maggioni, F. & Wallace, S.W. (2023) On the safe side of stochastic programming: bounds and approximations. *International Transactions in Operational Research*, **30**(6), 3201-–3237, ISSN: 0969-6016, doi: 10.1111/itor.13317.

[43] Bayraksan, G., Maggioni, F., Faccini, D. & Yang, M. (2024) Bounds for multistage mixed-integer distributionally robust optimization. *Siam Journal on Optimization*, **34**(1), 682–717, ISSN: 1095-7189, doi: 10.1137/22M147178X.

Edited Book

[44] Aringhieri, R, Maggioni, F., Lanzarone, E. Reuter-Oppermann, M, Righini, G. & Vespucci, M.T. (2023) Operations Research for Health Care in Red Zone, ORAHS 2022, Bergamo, Italy, Jul. 17–22, AIRO Springer Series, number of pages 81, ISBN: 978-3-031-38536-0, doi: 10.1007/978-3-031-38537-7.

Articles in Conference Proceedings or Books Chapters with Peer Review Process

[45] Maggioni, F. & Ricca, R.L. (2006) Twist and fold modelling of supercoiled filaments. In *Proc.* 5^{th} *Int. Conf. Aplimat 2006 Bratislava*, Slovakia, Part II, 123–130, ISBN: 809673055X; 978-809673055-1.

[46] Maggioni, F., Vespucci, M.T., Allevi, E., Bertocchi, M.I. & Innorta, M. (2007) A gas retail stochastic optimization model by mean reverting temperature scenarios. In *Communications to SIMAI Congress, on-line*, **2**, 1–10, ISSN 1827-9015, doi: 10.1685/CSC06162.

[47] Maggioni, F. & Ricca, R.L. (2008) DNA supercoiling modeling of nucleosome and viral spooling. In *PAMM, Proceedings* 6^{th} *International Congress on Industrial and Applied Mathematics, Zurich 2007,* **7**(1), 2120011–2120012, doi: 10.1002/pamm.200700421.

[48] Ricca, R.L. & Maggioni, F. (2008) A new stretch-twist-fold model for fast dynamo. In *PAMM, Proceedings* 6^{th} *International Congress on Industrial and Applied Mathematics, Zurich 2007,* **7**,(1), 2100051–2100052. doi: 10.1002/pamm.200700522.

[49] Maggioni, F., Wallace, S.W., Bertocchi, M. & Allevi, E. (2010) Sensitivity analysis in stochastic second order cone programming for mobile ad hoc networks. In *Proceedings of the* 6^{th} *International Conference on Sensitivity Analysis of Model Output*, SAMO 2010. In *Procedia Social and Behavioral Sciences*, **2**(5), 7704–7705, Elsevier, Milan; Italy, 19 - 22 Jul. 2010, ISSN: 1877-0428, doi: 10.1016/j.sbspro.2010.05.188.

[50] Maggioni, F., Allevi, E. & Bertocchi, M. (2012) The value of information in multistage linear stochastic programming. In *Proceeding of the Special Workshop of Stochastic Programming Community (STOPROG-2012) Stochastic Programming for Implementation* (L. Sakalauskas, A. Tomasgard, S.W. Wallace eds), Vilnius, 78–82, ISBN: 978-609-95241-4-6, doi: 10.5200/stoprog.2012.14.

[51] Maggioni, F., Bertocchi, M., Allevi, E., Potra, F.A. & Wallace, S.W. (2013) Stochastic second-order cone programming in mobile ad-hoc networks: sensitivity to input parameters. In *Stochastic Programming, Applications in Finance, Energy and Logistics* (H.I. Gassmann, S.W. Wallace, W.T. Ziemba eds), World Scientific, **17**, 467–486, ISBN: 978-981-4407-50-2, doi: 10.1142/9789814407519_0017.

[52] Maggioni, F., Alamri, S., Barenghi, C.F. & Ricca R.L. (2013) Vortex knots dynamics in Euler fluids. In *Procedia IUTAM*, Elsevier, **7**, 29–38, ISSN: 2210-9838, doi: 10.1016/j.piutam.2013.03.005.

[53] Maggioni, F., Perboli, G. & Tadei, R. (2014) The Multi-path traveling salesman problem with stochastic travel costs: building realistic instances for city logistics applications. In *Transportation Research Procedia*, **3**, 528–536, ISSN: 2352-1465, doi: 10.1016/j.trpro.2014.10.001.

[54] Maggioni, F., Bertocchi, M., Mosca, E., Reinbold, R. & Zucchi, I. (2014) Geometric and computational models of chromatin fibre folding for human embryonic stem cells. In *Procedia Social and Behavioral Sciences*, **108**, 296–305, ISSN: 1877-0428, doi: 10.1016/j.sbspro.2013.12.839.

[55] Bertazzi, L. & Maggioni, F. (2014) The stochastic capacitated traveling salesmen location problem: a computational comparison for a United States instance. In *Procedia Social and Behavioral Sciences*, **108**, 47–56, ISSN: 1877-0428, doi: 10.1016/j.sbspro.2013.12.819.

[56] Kabašinskas, A., Šutienė, K. Valakevičius, E. & Maggioni, F. (2014) Stochastic programming framework for Lithuanian pension payout modelling. In *Croatian Operational Research Review*, **5**(2), 387–399, ISSN 1849-5141, doi: 10.17535/crorr.2014.0021.

[57] Maggioni, F. & Allevi, E. (2017) Bounding multistage stochastic programs: a scenario tree based approach. In *Optimization and Decision Science: Methodologies and Applications.* ODS 2017. Springer Proceedings in Mathematics & Statistics (Sforza, A., Sterle, C. eds), Springer, Cham. **217**, 403–411, ISBN: 9783319673080, doi: 10.1007/978-3-319-67308-0_41.

[58] Cavagnini, R., Bertazzi, L. & Maggioni, F. (2018) A two-stage stochastic model for distribution logistics with transshipment and backordering: stochastic versus deterministic solutions. In *New Trends in Emerging Complex Real Life Problems*, AIRO Springer Series, (P. Daniele and L. Scrimali eds), **1**, 131–140, Springer, Cham., ISBN: 978-3-030-00472-9, doi: 10.1007/978-3-030-00473-6_15.

[59] Bertazzi, L. & Maggioni, F. (2019) Forecasting methods and optimization models for the inventory management of perishable products: the case of "La Centrale del Latte di Vicenza SpA". In *A View of Operations Research Applications in Italy, 2018*, AIRO Springer Series, (M. Dell'Amico, M. Gaudioso, G. Stecca eds), **2**, Springer, Cham., ISBN: 978-3-030-25841-2, doi: 10.1007/978-3-030-25842-9_7.

[60] Ricca, R.L. & Maggioni, F. (2022) Groundstate energy spectra of knots and links: magnetic versus bending energy. In *New Directions in Geometric and Applied Knot Theory*, (P. Reiter, S. Blatt and A. Schikorra eds), OM Measure Theory, De Gruyter Open Poland, Basel, 276–288, ISBN: 9783110571486, doi: 10.1515/9783110571493-013.

[61] Maggioni, F., Faccini, D., Gheza, F., Manelli, F., Bonetti, G. (2023) Machine learning based classification models for COVID-19 patients. In *Operations Research for Health Care in Red Zone.* ORAHS 2022 (Aringhieri, R., Maggioni, F., Lanzarone, E., Reuter-Oppermann, M., Righini, G., Vespucci, M.T. eds), AIRO Springer Series, **10**, 35–46, Springer, Cham. ISBN: 978-3-031-38536-0, doi: 10.1007/978-3-031-38537-7_4.

[62] Aringhieri, R., Maggioni, F., Lanzarone, E., Righini, G., Vespucci, M.T. (2023) Operations research in the red zone In *Operations Research for Health Care in Red Zone.* ORAHS

2022 (Aringhieri, R., Maggioni, F., Lanzarone, E., Reuter-Oppermann, M., Righini, G., Vespucci, M.T. eds), AIRO Springer Series, **10**, 1–3, Springer, Cham. ISBN: 978-3-031-38536-0, doi: 10.1007/978-3-031-38537-7_1.

[63] De Leone, R., Maggioni, F. & Spinelli, A. (2024) A Multiclass robust twin parametric margin support vector machine with an application to vehicles emissions. In *Machine Learning, Optimization, and Data Science*. LOD 2023. (Nicosia, G., Ojha, V., La Malfa, E., La Malfa, G., Pardalos, P.M., Umeton, R. eds), Lecture Notes in Computer Science, **14506**, 299–310, Springer Nature Switzerland, ISBN: 978-3-031-53965-7, doi: 10.1007/978-3-031-53966-4_22.

[64] Maggioni, F. & Spinelli, A. (2024) Vehicles smog rating classification using a new robust support vector machine approach, to appear in *AIRO Springer Serie*s (ODS 2023 Conference Proceedings), **19**, doi: 10.1007/978-3-031-47686-0_19.

[65] Bezzi, D. Jabali, O. & Maggioni, F. (2024) A threshold recourse policy for the electric vehicle routing problem with stochastic energy consumption, to appear in *AIRO Springer Series* (ODS 2023 Conference Proceedings), **20**, doi: 10.1007/978-3-031-47686-0_20.

Articles in Italian Journals or Books

[66] Bertocchi, M., Maggioni, F., Innorta, M., Vespucci, M.T., Allevi, E., Gambarini, S. & Nicolini, S. (2008) La vendita al dettaglio del gas nel mercato liberalizzato: un modello di ottimizzazione stocastica. *Matematica e Impresa*, **1**, 16.

[67] Bertocchi, M., Maggioni, F., Allevi, E., Vespucci, M.T., Innorta, M. & Gambarini, S. (2008) Un modello stocastico per la vendita al dettaglio del gas. In *Scienza delle decisioni in Italia: applicazioni della ricerca operativa a problemi aziendali, Ed. Felici G. and Sciomachen A.*, Genova ECIG, 105–116, ISBN: 9788875441500.

[68] Allevi, E. & Maggioni, F. (2010) Capitolo 2: Proprietà base e teoria della programmazione stocastica lineare. In *Programmazione stocastica e applicazioni* by J. Abaffy, E. Allevi, M. Bertocchi, V. Moriggia, Apogeo, Milano ISBN: 978-88-7534-044-5.

[69] Allevi, E. & Maggioni, F. (2010) Capitolo 3: Il metodo L-Shaped. In *Programmazione stocastica e applicazioni* by J. Abaffy, E. Allevi, M. Bertocchi, V. Moriggia, Apogeo, Milano ISBN: 978-88-7534-044-5.

[70] Maggioni, F. (2010) Modelli di ottimizzazione stocastica per lo sheduling di mezzi di trasporto nel settore cementifero (chapter 4). In *Programmazione stocastica e applicazioni* by J. Abaffy, E. Allevi, M. Bertocchi, V. Moriggia, Apogeo, Milano, ISBN: 978-88-7534-044-5.

[71] Maggioni, F., Bertazzi, L. & Kaut, M. (2010) Scheduling di mezzi di trasporto nel settore cementifero. *Matematica e Impresa*, Edizione 2010.

[72] Maggioni, F. (2017) La bellezza e l'utilità della matematica: un omaggio a Marida Bertocchi. In *A me l'infinito mi schiaccia sempre un po'. L'uomo interroga la scienza* - Ateneo di Scienze Lettere e Arti di Bergamo - Studi, Bergamo, ISBN-978-88-6642-279-2, 185–196.

[73] Maggioni, F. (2019) Capitolo 6: La programmazione non lineare. In *Strategie, introduzione alla teoria dei giochi e delle decisioni* (C. Bertini, G. Gambarelli, I. Stach eds), Giappichelli Editore, ISBN: 978-88-921-0413-6.

[74] Maggioni, F. (2019) Capitolo 10: La programmazione stocastica. In *Strategie, introduzione alla teoria dei giochi e delle decisioni* (C. Bertini, G. Gambarelli, I. Stach eds), Giappichelli Editore, ISBN: 978-88-921-0413-6.

[75] Maggioni, F., Gheza, F., Manelli, F., & Bonetti G. (2021) Un algoritmo di apprendimento automatico per l'ottimizzazione delle cure di pazienti COVID-19, In *Atti dell'Ateneo di Scienze Lettere e Arti di Bergamo*, Vol. LXXXIII, Supplemento, 213–224, ISSN: 1724-2347, ISBN: 978-88-6642-383-6.

Ph.D. Thesis

[76] Maggioni, F. (2006) Kinematics of elastic filaments and magnetic relaxation of flux tubes. *Ph.D. Thesis*, University of Milano-Bicocca.

Miscellaneous

[77] Maggioni, F. & Bertazzi, L. (2018) Forecasting and optimizing the material requirement planning of *La Centrale del Latte di Vicenza SpA*, A View of Operations Research in Italy. Selected by INFORMS to highlight Operations Research real-world impact. `https://www.informs.org/News-Room/O.R.-Analytics-for-Government-Officials/Topic-Areas/Information-on-Artificial-Intelligence/Case-Studies`.

[78] Consigli, G. & Maggioni, F. (2020) In Memoriam: Marida Bertocchi, First Newsletter of the Stochastic Programming Society `https://www.stoprog.org/sites/default/files/sps_newsletter_1.pdf`.

[79] Bayraksan, G. & Maggioni, F. (2020) Stochastic programming society virtual seminar series: decision making in an uncertain world, Newsletter of the European Women in Mathematics, **34** (2020/2), `https://www.europeanwomeninmaths.org/virtual-seminar/`.

[80] Bayraksan, G. & Maggioni, F. (2021) SPS virtual seminar series: decision making in an uncertain world, Second Newsletter of the Stochastic Programming Society, `https://www.stoprog.org/sites/default/files/sps_newsletter_2.pdf`.

[81] Interview to the "Subject to" youtube channel `https://www.youtube.com/watch?v=DLCIrNKAKTs`.

Papers Under Evaluation in International Journals with Peer-Review Process

[82] Spinelli, A., Maggioni, F., Rodrigues Pereira Ramos, T., Barbosa-Povoa, A.P. & Vigo, D. A rolling horizon heuristic approach for a multi-stage stochastic waste collection problem. **Status**: first revision in *European Journal of Operational Research.*

[83] Maggioni, F. & Spinelli, A. A novel robust optimization model for nonlinear support vector machine. **Status**: first revision in *European Journal of Operational Research.*

[84] Maggioni, F., Dabbene, & Pflug, G. Sampling methods for multi-stage robust optimization problems. **Status**: first revision in *Annals of Operations Research*.

[85] Cavagnini, R., Maggioni, F., Bertazzi, L. & Hewitt, M., A two-stage stochastic optimization model for the bike-sharing allocation and rebalancing problem. **Status**: first revision in *EURO Journal on Transportation and Logistics*.

[86] De Leone, R., Maggioni, F. & Spinelli, A. A robust twin parametric margin support vector machine for multiclass classification. **Status**: under review in *Computers & Operations Research*.

[87] Consigli, G., Dentcheva, D., Maggioni, F. & Micheli, G. Asset liability management under multi-period stochastic dominance principles. **Status**: under review.

[88] Wallace, S.W. & Maggioni, F. Stochastic programs with recourse: bounds. **Status**: under review in *Encyclopedia of Optimization*, 3^{rd} edition, (P. Pardalos, & O. Pokopyev eds), invited.

[89] Fadda, E., Gioia, D.G., Brandimarte, P. & Maggioni, F. Joint discount and replenishment parametric policies for perishable products, **Status**: under review in *18th IFAC Symposium on Information Control Problems in Manufacturing, (INCOM 2024)*.

Work in Progress

[90] Filippi, C. Maggioni, F. & Speranza, M.G. The stochastic shortest path: a review and open problems.

[91] Filippi, C. Maggioni, F. & Speranza, M.G. The robust shortest path: a review and open problems.

[92] Bertazzi, L., Maggioni, F., Meisel, S. & Powell, WB. Analysis of policies in an energy storage problem with stochastic loads.

[93] Maggioni, F., Cavagnini, R. & Faccini, D. Optimization driven monotonic bounds for stochastic programs.

[94] Cavagnini, R., Crainic, T., Maggioni, F. & Rei, W. The multi-commodity two-echelon vehicle routing problem with time windows and stochastic travel times.

[95] Beatrici, P., Birolini, S., Maggioni, F. & Malighetti, P. A two-stage stochastic programming approach for an electric fleet composition and mix vehicle routing problem with stochastic demand.

[96] Bezzi, D., Jabali, O., Maggioni, F. & Spinelli, A. A Stochastic electric vehicle routing problem under uncertain energy consumption.

[97] Maggioni, F., Marchesi, G. & Singh, B. Learning fair and robust support vector machine models.

[98] Bayraksan, G., Escudero, L., Maggioni, F. & Micheli, G. Bounds for multi-horizon distributionally robust optimization problems.

[99] Bayraksan, G., Escudero, L., Maggioni, F. & Micheli, G. Multi-horizon optimization for domestic renewable energy system design under uncertainty.

[100] Maggioni, F. & Spinelli, A. The distributionally robust vehicle routing problem with uncertain travel times.

[101] Maggioni, F. & Wallace, S.W. Stochastic optimization models for bike sharing systems, to be submitted to *Encyclopedia in Operations Management* (invited).

Reviewer and Editorial Activities

She has taken the following responsibilities as reviewer or guest/associate editor:

- (2006 – now) **Reviewer** of the following journals:
  AMS Reviewer, Annals of Operations Research, Applied Mathematics and Computation, Asia-Pacific Journal of Operational Research, Central European Journal of Operational Research, Computational Management Science, Computer & Mathematics with Applications, Computers & Operations Research, Journal of Air Transport Management, Journal of Scheduling, Journal of Optimization, Theory and Applications, 4OR, European Journal of Operational Research, Transportation Science, INFORMS Journal on Computing, INFORMS Journal on Optimization, IIE Transactions, IMA Journal of Management Mathematics, Omega, Operational Research, Operations Research, Operations Research Perspectives, Operations Research Letters, Optimization Letters, Siam Journal on Optimization, Transportation Research Part C: Emerging Technologies, Mathematics of Operations Research, Transportation Research Part E: Logistics and Transportation Review.

- (2021) **Grant proposal reviewer** for *Natural Sciences and Engineering Research Council of Canada (NSERC)*, discovery grant.

- (2016 – 2017) **Guest Editor** of the special issue of *Computational Management Science* associated with the conference Computational Management Science (CMS 2016), Salamanca (Spain).

- (2017 – 2019) **Guest Editor** of the special issue of *Annals of Operations Research*, "Stochastic Optimization: Theory and Applications, in memory of Marida Bertocchi".

- (2019 – 2020) **Guest Editor** of the special issue of *Computational Management Science*, "Optimization for Management Science: ICSP 2019 Conference".

- (2019 – 2023) **Editor** of the *Stochastic Programming Society Newsletter*, `https://www.stoprog.org/sps-newsletter`.

- (2016 – now) **Associate Editor** of the Journal: *Computational Management Science* (Springer).

- (2020 – now) **Associate Editor** of the Journal: *EURO Journal on Computational Optimization* (Springer).
- (2022 – now) **Associate Editor** of the Journal: *TOP An Official Journal of the Spanish Society of Statistics and Operations Research* (Springer).
- (2023 – now) **Associate Editor** of the Journal: *Networks* (Wiley).
- (2023 – now) **Associate Editor** of the Journal: *International Transactions in Operational Research* (Wiley).
- (2023 – now) **Guest Editor** of the special issue of *Annals of Operational Research*, "Recent advances in stochastic and robust optimization", associated to the 33^{rd} European Conference on Operational Research, Copenhagen (DK).
- (2023 – now) **Guest Editor** of the special issue of *Computational Management Science*, "Stochastic Optimization: Methodological Advancements and Modern Applications", associated to the the 2^{nd} Copenhagen School of Stochastic Programmin and ECSO-CMS 2024 Conference, Stockholm (SE).

Research Projects, Grants and Consultancies

She participated to the following research projects, grants or consultancies as principal investigator or member:

- **Member** of the project PRIN 2005 "*Modelli di supporto alle decisioni per gli operatori del mercato elettrico italiano e loro impatto sulla sicurezza del sistema*"; National Coordinator R. Musmanno, protocol n. 2005015592, 2007–2009, member of the Research unit of the University of Bergamo, 56000 euros.
- **Principal Investigator** of the research project granted by the Italian group of mathematical physics "*Progetto Giovani GNFM 2009*": "*Energy of knotted DNA filaments*", 3000 euros.
- **Member** of the project PRIN 2009 "*Modelli e algoritmi avanzati per problemi di vehicle routing*"; National Coordinator M.G. Speranza, protocol n. 2009HWBRAW, 17/10/2011 – 17/10/2013, role: member of the Research unit of the University of Brescia, 128727 euros.
- **Member** of the project EN17 PROJECT – *Accordo Quadro, Regione Lombardia: "Metodi di integrazione delle fonti energetiche rinnovabili e monitoraggio satellitare dell'impatto ambientale*"; Coordinator A. Fassó, CUP F11J10000200002, 2011–2012, role: researcher, 856000 euros.
- **Principal Investigator** of the project FYRE - Fostering Young REserchers project, *Bando Fondazione Cariplo "Promuovere la formazione di capitale umano di eccellenza*" for a visiting period (Sep. – Dec. 2012) at Isaac Newton Institute for Mathematical Sciences, Cambridge (UK) to attend the program "*Topological Dynamics in the Physical and Biological Sciences*", 5000 euros.

- **Principal Investigator** of the following Galileo projects to foster collaborations between Italian and France Institutions:
  - (2015) "*Stochastic Optimization for Energy Planning*". French investigator A. Lisser, Université Paris Sud. The proposal received the evaluation A+ (Italian evaluation) and A (French evaluation) but was not funded due to budget limitations.
  - (2017) "*Optimization of emergency department workforce scheduling problem under uncertainty*". French investigator A. Lisser Université Paris Sud. The proposal received the evaluation A (Italian evaluation) but was not funded due to budget limitations.
- **Member** of the project PRIN 2015 "*Transportation and Logistics Optimization in the Era of Big and Open Data*"; National Coordinator M.G. Speranza, 05/02/2017 − 05/02/2020, protocol n. 2015JJLC3E, role: member of the research unit of the University of Brescia, 214485 euros.
- **Principal Investigator** of the Grant FFABR: *Fondo per il finanziamento delle attività base di ricerca*, 2017, 3000 euros.
- **Principal Investigator** of four GNCS projects (INDAM) to participate to conferences abroad.
  - "22^{th} International Symposium on Mathematical Programming (ISMP)" (Jul. 11–17, 2015, Pittsburgh), 700 euros.
  - "4^{th} Conference on Optimization Methods and Software" (Dec. 16−20, 2017, University of Havana (CU)), 1200 euros.
  - "23^{rd} International Symposium on Mathematical Programming" (ISMP) (Jul. 1–8, 2018, Bordeaux (F)), 600 euros.
  - "XV International Conference on Stochastic Programming ICSP" (Jul. 29 – Aug. 2, 2019, Trondheim (N)), 600 euros.
- **Principal investigator** of PRIN 2017 "*Sustainable URban Freight transportatIoN and LOgistics: OPtimization under uncertainty (SURFIN'LOOP)*", Young action line. The proposal has been admitted to the second evaluation phase and received positive evaluation but was not funded.
- **Principal Investigator** of the STaRs (Supporting Talented Researchers) Outgoing Visiting Professor projects granted by the University of Bergamo:
  - (2018) "*Chance constrained Games*" to visit the Laboratoire de Recherche en Informatique (LRI) University of Paris Sud (F) in the period Feb. 17 − Mar. 3, 2019, 2000 euros.
  - (2019) "*Risk-averse optimization using stochastic orders, distributional constraints, risk measures, and bounding techniques*" to visit the Department of Mathematical Sciences, Stevens Institute of Technology (USA) in the period Mar. 31 − Apr. 14, 2019, 2000 euros.

- **Principal Investigator** of the Cariplo 2021 project "*Economia Circolare: ricerca per un futuro disponibile*". Title "*Smart Waste Management Optimization for Circular Economy under Uncertainty: an integrated approach (SWaMOpt)*". The proposal received positive evaluation (90.80/100) but was not funded due to budget limitations.

- **Principal investigator** of PRIN 2020 "*Urban Logistics and sustainable TRAnsportation: OPtimization under uncertainTY and MAchine Learning (ULTRA OPTYMAL)*", granted by the Italian University and Research Ministry, project code 20207C8T9M, score 100/100, 532800 euros, `https://ultraoptymal.unibg.it/`.

- **Principal investigator** of the following annual research projects (*Fondi di Ateneo ex* 60%) granted by the University of Bergamo:

  - 2007: "*Minimizzazione del funzionale dell'energia elastica di un filamento superavvolto. Applicazioni al DNA*", 3970 euros.
  - 2008: "*Rilassamento magnetico mediante meccanismi STF*", 4380 euros.
  - 2009: "*L'energia di configurazioni annodate in applicazioni biologiche e fluidi ideali*", 3979 euros.
  - 2010: *"Misure di valutazione della soluzione deterministica in ottimizzazione stocastica e applicazioni*", 3966 euros.
  - 2011: "*Cinematiche ottime di superavvolgimento di filamenti di DNA*", 7164 euros.
  - 2013: "*Metodi di ottimizzazione per la gestione dell'incertezza in problemi di trasporto e logistica*", 2891 euros.
  - 2014: "Measuring uncertainty in logistics and transportation", 2350 euros.
  - 2015: "*Partial Benders decomposition strategies for problems in transportation and logistics*", 6424 euros.
  - 2016: "*Bounds and decomposition methods in stochastic programming*", 4739 euros.
  - 2017: "*Bounding multistage stochastic optimization programs: the case of infinite risk-averse, multi-horizon and chance-constrained problems*", 5105 euros.
  - 2018: "*Bounding multistage distributionally robust optimization problems*", 4661 euros.
  - 2019: "*Sampling methods for multistage robust convex optimization problems*", 4719 euros.
  - 2020: "*Bounds for two-stage stochastic optimization standard quadratic programs with applications*".
  - 2021: "*Distributionally robust optimization for non linear support vector machine with applications*", 4939 euros.

- **Member** of the following annual research projects (*Fondi di Ateneo ex 60%*) granted by the University of Bergamo (principal investigator Prof. L. Brandolini):

  - 2022–2023–2024: "*Analisi matematica ed applicazioni*".

- **Member** of the PNRR Project MOST (*Centro Nazionale per la Mobilità Sostenibile*), Spoke 5, (2022 − 2025) `https://www.centronazionalemost.it/`.

- **Local Investigator** and **Referent Person** of the University of Bergamo of the National Project "*Piano Lauree Scientifiche 2021–2023 (Matematica)*", National Coordinator: M. Maracci, University of Pisa (2023 − 2025), 1250000 euros.

- **Funds Received for Hosting Foreign Researches**
  Responsibility of research funds granted by the University of Bergamo or GNFM (INDAM) for supporting visiting research periods and seminars of the following international professors at the University of Bergamo:

  G. Bayraksan, I. Bomze, M.E. Bruni, D. Dentcheva, L. Escudero, M. Hewitt, A. Lisser, G.C. Pflug, F.A. Potra, S. Meisel, G. Perboli and A. Ruszczynski.

- **Funds Received for Organizing Workshops and Schools**

  – Responsibility of research funds granted by several societies to organize the Workshop "*Robustness and Resilience in Stochastic Optimization and Statistical Learning: Mathematical Foundations*" at the Ettore Majorana Foundation and Centre for Scientific Culture, Erice (I) (May 19 − 25, 2022): GNCS (INDAM), 1800 euros, European Mathematical Society, 2880 euros, EWGO 1000 euros and SPS 500 euros.

  – Responsibility of research funds granted by several societies to organize the EURO Summer Institute: "*Decision-making under uncertainty for commodities and financial markets*" (co-chair: R. D'Ecclesia), Ischia, Naples (I) (Sep. 15 − 25, 2024): EURO 25000 euros, EWGSO 4210 euros, EWGCFM 4000 euros, AIRO 1550 euros, GNCS (INDAM) 1000 euros.

- **Contracts for Consultant Services with Companies**

  – (2016) "*Virtualizzazione della produzione di serie. Garantire la robustezza e la costanza del processo con l'ottimizzatore*", in collaboration with *Ecotre*.

  – (2016) "*Potenziamento dei metodi di previsione delle vendite dei prodotti conto terzi e programmazione ottimale dell'approvvigionamento di materie prime e di materiali per l'imballaggio ed il confezionamento*", in collaboration with *Centrale del latte di Vicenza S.p.A.*, University of Brescia and *Sportello Matematico per l'Industria Italiana*.

  – (2019) Course "*Introduction to Operations Research for Industries*", in collaboration with *IMS Technologies Group S.p.A.*

Conference Talks, Invited Seminars and Short Courses

She has participated and given talks at the following conferences, invited seminars and short courses:

Conference Talks

1. (Oct. 2, 2003) *The K-loop associated to the hyperbolic plane and its automorphisms*, Terza Giornata bolognese sui cappi, Bologna (I).

2. (Dec. 4, 2003) *The hyperbolic plane: from the structure of reflection to the K-loop*, national meeting, Rome (I).

3. (Aug. 1, 2005) *Twist and fold of filaments in nature*, Isaac Newton Institute for Mathematical Sciences, Cambridge (UK).

4. (Jan. 31, 2006) *Twist and fold modeling for DNA supercoiling,* Incontro su Metodi Teorici in biologia, Milan (I).

5. (Sep. 11, 2006) *A stochastic optimization model for gas sale company,* 37^{th} International Conference of the Italian Operations Research Society (AIRO 2006), Cesena (I).

6. (Feb. 27, 2007) *Stochastic optimization models for gas sale company,* Gestione del rischio finanziario nei mercati dell'energia: applicazioni e problemi, Giornata di Studio, University of Milano-Bicocca (I) (**invited talk**).

7. (Apr. 12, 2007) *Stochastic optimization models for gas sale company: influence of different stochastic factors,* Spring school 2007, Stochastic programming: theory and applications, University of Bergamo (I).

8. (Jul. 20, 2007) *Multiple folding and packing in DNA modeling,* 6^{th} International Conference on Industrial and Applied Mathematics (ICIAM07), Zurich (CH).

9. (Aug. 27, 2007) *A stochastic optimization model for gas retailer with temperature scenarios and oil prices parameters,* 11^{th} Conference on Stochastic Programming (ICSP XI), Vienna (A).

10. (Sep. 5, 2007) *A stochastic optimization model for gas retailer with temperature scenarios and oil prices parameters,* XXXI Convegno Amases, Lecce (I).

11. (Jan. 22, 2008) *A two-stage stochastic optimization model for gas retailer with temperature scenarios and oil prices parameters,* Second FIMA International Conference, Champoluc (I).

12. (May 29, 2008) *A single-sink transportation problem: stochastic optimization models,* ,International Conference on Applied Mathematics Programming and Modelling (APMOD 2008), Bratislava (CS).

13. (Sep. 1, 2008) *Stochastic second-order cone programming in mobile ad-hoc networks,* XXXII Convegno Amases, Trento (I).

14. (Sep. 5, 2008) *Stochastic second-order cone programming in mobile ad-hoc networks,* CARIPLO Workshop on Numerical Linear and Nonlinear Stochastic Programming, Edinburgh (UK).

15. (Sep. 10, 2008) *A single-sink transportation problem: stochastic optimization models,* 39^{th} Annual Conference of the Italian Operations Research Society (AIRO 2008), Ischia (I).

16. (Sep. 18, 2008) *Modeling filament kinematics for proteic coding and viral spooling,* Conference on Knots and other Entanglements in Biopolymers: Topological and Geometrical Aspects of DNA, RNA and Protein Structures, Trieste (I) (poster selected for an oral presentation).

17. (Oct. 11, 2008) *New results on vortex knots and unknots,* The 8^{th} International Seminar on Geometry Continua and Microstructures 2008, Catania (I) (**invited talk**).

18. (Jan. 22, 2009) *Stochastic second-order cone programming in mobile ad-hoc networks,* Third FIMA International Conference, Gressoney (I).

19. (May 27, 2009) *On vortex knots and unknots*, Advanced School and Conference on Knot Theory and its Applications to Physics and Biology, ICTP, Trieste (I).

20. (Jul. 9, 2009) *Twist and fold modelling of supercoiled filaments*, New trends in physics and mechanics of biological systems, Ecole de Physique, Les Houches (Chamonix) (F) (**invited talk**).

21. (Sep. 17, 2009) *On vortex knots and unknots*, Mathematical Models of Quantum Fluids, Geometrical Analitical and Computational Aspects, Verona (I) (**invited talk**).

22. (Jul. 12, 2010) *Stochastic second-order cone programming in mobile ad hoc networks*, 24^{th} European Conference on Operational Research (EURO XXIV), Lisbon (P).

23. (Jul. 21, 2010) *Sensitivity analysis in stochastic second-order cone programming for mobile ad-hoc networks*, Conference on Sensitivity Analysis and Model Output (SAMO 2010), Milan (I).

24. (Aug. 20, 2010) *Analyzing the quality of the expected value solution in stochastic programming*, XII International Conference on Stochastic Programming (ICSP XIII), Halifax, Nova Scotia (CDN).

25. (Sep. 10, 2010) *Stochastic second order cone programming in mobile ad-hoc networks: sensitivity analysis and quality of expected value solution*, 41^{st} Annual Conference of the Italian Operations Research Society, Villa S. Giovanni, Reggio Calabria (I).

26. (Apr. 28, 2011) *The value of information in multistage linear stochastic programming*, 8^{th} International Conference on Computational Management Science (CMS 2011), University of Neuchatel (CH).

27. (May 19, 2011) *Linking Numbers in Vortex and Magnetic Knots*, Workshop: Entanglement and Linking in the "Intensive Research Period: Knots & Applications", Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale Superiore di Pisa (I).

28. (Jul. 5, 2011) *Optimal kinematics of supercoiled filaments*, Poster presented in the ESF-EMS-CRM-Pi International Conference on "Knots and Links: From Form to Function", Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale Superiore di Pisa (I).

29. (Sep. 7, 2011) *The value of information in multistage linear stochastic programming: a case study*, 42^{nd} Annual Conference of the Italian Operations Research Society, Brescia (I) (**invited talk**).

30. (Nov. 13, 2011) *A stochastic second order cone model for a single-facility location problem*, INFORMS Annual Meeting, Charlotte (USA).

31. (Nov. 15, 2011) *Optimal kinematics of supercoiled filaments* Interactive Poster Session, INFORMS Annual Meeting, Charlotte (USA) (Second Place Winner: Interactive Poster Session).

32. (Mar. 20, 2012) *A stochastic model for daily coordination of pumped storage hydro plants and wind power plants*, First French-Italian Workshop on Energy Markets and Models (FIWEM'1), Brescia (I).

33. (Mar. 29, 2012) *Velocity, energy and helicity of vortex knots and unknots*, Vortices and solitons in classical and quantum fluids, CIRM Maiseille (F) (**invited plenary talk**).

34. (Apr. 17, 2012) *A stochastic second order cone model for a stochastic capacitated traveling salesmen location problem with recourse*, Computational Management Science Conference (CMS 2012), London (UK).

35. (Jun. 5, 2012) *Measures of information in mulstistage stochastic programming*, Italian Spanish Workshop on Optimization, Politecnico di Milano (I) (**invited plenary talk**).

36. (Jun. 26, 2012) *Optimal kinematics of supercoiled filaments*, SIMAI 2012, Politecnico di Torino (I).

37. (Jul. 5, 2012) *Measures of information in multistage stochastic programming*, Special Workshop of Stochastic Programming Community (STOPROG-2012) Stochastic Programming for Implementation, Neringa (LT).

38. (Jul. 10, 2012) *A stochastic second-order cone model for a stochastic capacitated traveling salesmen location problem with recourse*, 25^{th} European Conference on Operational Research (EURO 2012), Vilnius (LT).

39. (Jul. 24, 2012) *Velocity, energy and helicity of vortex knots and unknots*, Topological Fluid Dynamics (IUTAM Symposium), Isaac Newton Institute for Mathematical Sciences, Cambridge (UK).

40. (Aug. 23, 2012) *Measures of information in multistage linear stochastic programming*, 21^{st} International Symposium on Mathematical Programming (ISMP 2012), Berlin (D).

41. (Sep. 3, 2012) *Modeling chromatin fibre folding for human embryonic stem cells and cancer cells*, Topological Aspects of DNA Function and Protein Folding, Isaac Newton Institute for Mathematical Sciences, Cambridge (UK).

42. (Sep. 7, 2012) *A stochastic second-order cone model for a capacitated traveling salesmen location problem*, 43^{rd} Annual Conference of the Italian Operations Research Society, Vietri sul Mare, Salerno (I).

43. (Oct. 16, 2012) *Modeling chromatin fibre folding for human embryonic stem cells and cancer cells*, INFORMS Annual Meeting, Phoenix (USA).

44. (Jan. 31, 2013) *A stochastic model for the capacitated traveling salesmen location problem*, AIRO Winter 2013, Champoluc (I).

45. (Apr. 7, 2013) *Measures of information and quality of solutions in stochastic programs* PhD Winter school 2013: Stochastic programming with applications in energy and natural resources, Tignes (F) (**invited plenary talk**).

46. (Jun. 10 − 17, 2013) *Bounds and approximations in mulstistage stochastic programming*, 59^{th} Workshop Nonlinear Optimization: a Bridge from Theory to Applications, Erice (I).

47. (Jul. 1 − 4, 2013) *Optimal kinematics of supercoiling*, EURO-INFORMS Joint International Meeting, Rome (I).

48. (Jul. 8, 2013) *Bounds in multistage stochastic programs*, XIV International Conference on Stochastic Programming (ICSP 2013), Bergamo (I).

49. (Aug. 1, 2013) *Bounds in multistage stochastic programs*, 4^{th} International Conference on Continuous Optimization (ICCOPT 2013), Lisbon (P).

50. (Mar. 23 − 28, 2014) *Bounds in multistage stochastic programming.* Phd Winter school: Stochastic programming with applications in energy, finance and insurance, Bad Hofgastein (A) **(invited plenary talk**).

51. (Apr. 9, 2014) *Bounds for stochastic multistage transportation problems*, Applied Mathematical Optimization and Modelling (APMOD 2014), Warwick (UK).

52. (Jun. 16, 2014) *Vortex knots and unknots in Euler Fluids*, ESF Exploratory Workshop, Glasgow (UK) (**invited talk**).

53. (Jul. 14, 2014) *Progressive hedging method for the multi-path traveling salesman problem with stochastic travel times*, IFORS 2014 Triennal Conference, Barcelona (S).

54. (Sep. 2, 2014) *A progressive hedging method for the multi-path travelling salesman problem with stochastic travel times*, 44^{th} Annual Conference of the Italian Operations Research Society (AIRO 2014), Como (I).

55. (Sep. 24 − 26, 2014) *A progressive hedging method for the multi-path travelling salesman problem with stochastic travel times*, EURO Mini Conference on Stochastic Programming and Energy Applications (EuroCSP2014) Paris (F) (**invited talk**).

56. (Jan. 26, 2015) *Stochastic versus robust optimization for a supply transportation problem*, AIRO Winter Conference, Champoluc, Aosta (I).

57. (May 31 – Jun. 5, 2015) *Stochastic versus Robust Optimization for a Supply Transportation Problem*, Odysseus 2015, Sixth International Workshop on Freight Transportation and Logistics Ajaccio (F).

58. (Jul. 12 – 19, 2015) *Bounds and approximations for stochastic multistage programs*, 22^{nd} International Symposium on Mathematical Programming (ISMP 2015), Pittsburgh (USA).

59. (Sep. 1 – 4, 2015) *Monotonic bounds and approximations in multistage stochastic programs*, International Conference on Operations Research (OR 2015), Vienna (A) (**invited talk**).

60. (Sep. 7 – 10, 2015) *A transportation problem under uncertainty: stochastic versus robust optimization solution approaches*, 45^{th} Annual Conference of the Italian Operations Research Society (AIRO 2015), Pisa (I).

61. (Nov. 1 – 4, 2015) *Stochastic programming versus dynamic programming in a procurement transportation problem*, INFORMS Annual Meeting, Philadelphia (USA).

62. (Apr. 11, 2016) *Groundstate magnetic energy vs bending energy of knots and links*, International IUTAM Symposium Helicity, Structures and Singularity in Fluid and Plasma Dynamics held at the Istituto Veneto, Venice (I) (**invited talk**).

63. (Jun. 2, 2016) *Worst-case analysis of rolling horizon approaches for a stochastic multistage fixed charge transportation problem*, Computational Management Science Conference (CMS 2016), Salamanca (S).

64. (Jun. 24 – Jul. 2, 2016) *Bounding multistage risk-averse stochastic programs*, International Conference on Stochastic Programming (ICSP 2016), Buzios, Rio de Janeiro (BR).

65. (Aug. 28 – Sep. 2, 2016) *Worst-case analysis of rolling horizon approach in multistage stochastic programming: a transportation procurement problem*, The first Georgia Tech/University of Bergamo Optimization Workshop, Atlanta (USA) (**invited talk**).

66. (Aug. 28 – Sep. 2, 2016) *Guaranteed bounds and approximations in multistage stochastic programs*, The first Georgia Tech/University of Bergamo Optimization Workshop, Atlanta (USA) (**invited talk**).

67. (Sep. 6 – 9, 2016) *Worst-case analysis of rolling horizon approaches for a stochastic multistage fixed charge transportation problem*, 46^{th} Annual Conference of the Italian Operations Research Society (AIRO 2016), Trieste (I).

68. (Nov. 13 – 16, 2016) *On the sample complexity of multistage robust convex optimization problems*, INFORMS Annual Meeting, Nashville, Tennessee (USA).

69. (Jan. 15 – 21, 2017) *Bounds and approximations in stochastic and robust optimization*, PhD Winter School in Stochastic Programming with applications in energy, logistics and finance, Passo del Tonale (I) (**invited plenary talk**).

70. (May 29 − Jun. 1, 2017) *Bounding approaches for multistage stochastic and robust optimization problems*, Computational Management Science Conference (CMS 2017), Bergamo (I) (**invited plenary talk**).

71. (Jun. 5 − 8, 2017) *The stochastic multistage fixed-charged transportation problem: worst-sase analysis of the rolling-horizon approach*, Network Optimization Conference (NOW 2017), Viterbo (I) (**invited talk**).

72. (Sep. 4 − 7, 2017) *Bounding multistage stochastic programs: a scenario tree based approach*, International Conference on Optimization and Decision Science (ODS 2017), Sorrento (I).

73. (Sep. 20 − 22, 2017) *Guaranteed bounds for multistage stochastic optimization programs through stochastic dominance*, European Conference on Stochastic Optimization (ECSO 2017), Rome (I).

74. (Feb. 8 − 9, 2018) *Guaranteed bounds for non-discrete multistage risk-averse stochastic optimization programs through stochastic dominance*, 2018 Workshop on Stochastic Optimisation and Data Analytics for Computational Management, University of Bergamo (I) (**invited plenary talk**).

75. (May 16 − 18, 2018) *Distributionally robust chance-constrained dynamic pension fund management*, 61^{st} Meeting of EURO Working Group for Commodities and Financial Modelling, Kaunas (LT) (**invited talk**).

76. (May 29 − 31, 2018) *Bounds for probabilistic constrained problems*, International Conference on Computational Management Science (CMS 2018), Trondheim (N).

77. (Jun. 3 − 8, 2018) *A two-stage stochastic optimization model for the bike sharing allocation and re-balancing problem*, Odysseus 2018 Conference, Cagliari (I).

78. (Jul. 1 − 6, 2018) *Bounds in probabilistic constrained problems*, 23^{th} International Symposium on Mathematical Programming (ISMP 2018), Bordeaux (F) (**invited talk**).

79. (Jul. 8 − 11, 2018) *Guaranteed bounds for general non-discrete multistage risk-averse stochastic optimization programs*, 29^{th} European Conference on Operational Research, Valencia (S).

80. (Aug. 18 − 25, 2018) *Bounds in stochastic programs*, Workshop: New directions in Stochastic Optimisation, Mathematisches Forschungsinstitut Oberwolfach (DE) (**invited plenary talk**).

81. (Sep. 10 − 13, 2018) *Bounds for probabilistic constrained problems*, International Conference on Optimization and Decision Science (ODS 2018), Taormina (I).

82. (Sep. 13 − 15, 2018) *Guaranteed bounds for multistage risk-averse stochastic optimization programs*, 42^{nd} Annual Meeting of the AMASES Association for Mathematics Applied to Social and Economic Sciences, Napoli (I).

83. (Dec. 20 – 21, 2018) *Sampling methods for multistage robust convex optimization problems*, Conference in Optimization, Game Theory, and Data Analysis, University of Vienna (A) (**invited talk**).

84. (Mar. 3 – 8, 2019) *Stochastic programming and bounding*, Winter school on Energy market modelling, Kvitfjell (N) (**invited plenary talk**).

85. (Mar. 27 – 20, 2019) *Sampling methods for multistage robust convex optimization problems*, Computational Management Science Conference (CMS 2019), Chemnitz (D).

86. (Jul. 29 – Aug. 2, 2019) *Bounding multistage optimization programs under uncertainty*, XV International Conference on Stochastic Optimization (XV ICSP), Trondheim, NTNU (N) (**semi-plenary talk**).

87. (Sep. 4 – 7, 2019) *Sampling methods for multistage robust convex optimization problems*, International Conference on Optimization and Decision Science (ODS 2019), Genova (I).

88. (Sep. 19, 2019) *Bounding and sampling in optimization under uncertainty*, STOPTIMA: Stochastic Optimization, Modelling and Applications, Brno (CZ) (**invited plenary talk**).

89. (Sep. 27, 2019) *Bounding multistage stochastic programs*, Workshop Statistics, Risk & Optimization in honor of Prof. Georg C. Pflug, Vienna (A) (**invited plenary talk**).

90. (Nov. 7 – 13, 2020) *Multistage robust convex optimization problems: a sampling based approach*, Virtual 2020 INFORMS Annual Meeting (online).

91. (Nov. 19, 2020) *Multistage robust convex optimization problems: a sampling based approach*, International Conference on Optimization and Decision Science (ODS 2020) (online).

92. (Jul. 14, 2021) *Bounds for multistage mixed-integer distributionally robust optimization*, 31^{th} European Conference on Operational Research, Athens (G) (online).

93. (Jul. 22, 2021) *Bounds for multistage mixed-integer distributionally robust optimization*, 2021 SIAM Annual Meeting (AN21) (**invited talk**, online).

94. (Sep. 28, 2021) *Bounds for multistage mixed-integer distributionally robust optimization*, Workshop: Optimization under Uncertainty, Montreal (CAN) (**invited plenary talk**, online).

95. (Oct. 24 – 27, 2021) *Multistage robust convex optimization problems: a sampling based approach*, Annual INFORMS Conference (online).

96. (Jun. 29 – Jul. 1, 2022) *Bounds for multistage mixed-integer distributionally robust optimization*, Joint 3^{rd} European Conference on Stochastic Optimization and 17^{th} Computational Management Science Conference (ECSO-CMS 2022), Venice (I).

97. (Jul. 17 – 22, 2022) *Machine learning based classification models for COVID-19 patients*, 48^{th} Annual Meeting of the EURO Working Group on Operational Research Applied to Health Service, Bergamo (I).

98. (Sep. 12 − 16, 2022) *Bounding multistage optimization programs under uncertainty*, 12^{th} International Conference on Parametric Optimization and Related Topics (paraoptXII), Augsburg, (DE) (**invited plenary talk**).

99. (May 18, 2023) *Bounds for multistage mixed-integer distributionally robust optimization*, First Workshop of the PRIN 2020 ULTRA OPTYMAL Project, Bergamo (I) (**plenary talk**).

100. (May 24 − 25, 2023) *Robust and distributionally robust optimization models for classification problems*, Joint Workshop Centres for Shipping and Logistics & Energy, Natural Resources and the Environment, NHH, Bergen (N) (**invited plenary talk**).

101. (Jul. 24 − 28, 2023) *Bounding multistage mixed-integer distributionally robust optimization*, XVI International Conference Stochastic Programming (ICSP), Davis, California (USA) (**semi-plenary talk**).

102. (Sep. 4 − 7, 2023) *A robust nonlinear support vector machine approach for vehicles smog rating classification*, International Conference on Optimization and Decision Science (ODS 2023), Ischia, Naples, (I).

103. (Sep. 4 − 9, 2023) *Bounding multistage optimization programs under uncertainty*, XXII Congress of the Italian Mathematical Union (UMI), Pisa (I) (**invited talk**).

104. (Sep. 22 − 26, 2023) *A multiclass robust twin parametric margin support vector machine with an application to vehicles emissions*, The 9^{th} International Conference on Machine Learning, Optimization, and Data Science (LOD2023), Lake District (UK).

105. (Jun. 25 − 28, 2024) *Bounding techniques in optimization under uncertainty*, 2^{nd} Copenhagen School of Stochastic Programming, Copenhagen (DK) (**invited plenary talk**).

106. (Jun. 30 − Jul. 3, 2024) *Sampling methods for multi-stage robust optimization problems*, 33^{rd} European Conference on Operational Research, Copenhagen (DK).

107. (Jul. 4 − 5, 2024) *Bounds in multi-horizon optimization for domestic renewable energy system design under uncertainty*, European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2024) Stockholm (SE).

108. (Jul. 21 − 26, 2024) *Sampling methods for multi-stage robust optimization problems*, 25^{th} International Symposium on Mathematical Programming (ISMP 2024) Montréal (CA).

109. (Sep. 15 − 25, 2024) *Asset liability management under sequential stochastic dominance constraints*, EURO Summer Institute Decision-making under uncertainty for commodities and financial markets, Ischia, Naples (I) (**plenary talk**).

Invited Seminars

110. (Nov. 25, 2004) *Measure of complexity of spaced curves*, Università Cattolica del Sacro Cuore of Brescia (I).

111. (Jan. 24, 2007) *Models of supercoiling: from DNA to...*, Università Cattolica del Sacro Cuore of Brescia (I).

112. (May 4, 2007) *Introduction to stochastic programming,* University of Brescia (I).

113. (Jun. 12, 2007) *Stochastic optimization models for gas sale company,* Molde University College, Norwegian school of Logistic (N).

114. (Apr. 4, 2008) *Multiple folding and packing in DNA modeling,* School of Mathematics and Statistics, University of Newcastle, Newcastle upon Tyne (UK).

115. (Apr. 15, 2009) *On the groundstate energy of magnetic knots*, School of Mathematics and Statistics, University of Newcastle, Newcastle upon Tyne (UK).

116. (Apr. 27, 2009) *Energia minima di nodi magnetici rilassati*, Università Cattolica del Sacro Cuore of Brescia (I).

117. (Dec. 8, 2009) *On the groundstate energy of magnetic knots*, Physics Department, Lancaster University, Lancaster (UK).

118. (Sep. 5, 2011) *Ottimizzazione stocastica: decidere in condizioni di incertezza*, Summer School, San Pellegrino Terme, Bergamo (I).

119. (Oct. 27, 2011) *Modelli di ottimizzazione per cinematiche di filamenti superavvolti*, "Interdipartimental seminar MAT-STAT", University of Bergamo (I).

120. (Nov. 4, 2011) *Generazione scenari in Ottimizzazione Stocastica: un'introduzione*, University of Brescia (I).

121. (Mar. 2, 2012) *Introduzione all'Ottimizzazione Stocastica*, Università Cattolica del Sacro Cuore of Brescia (I).

122. (Oct. 24, 2012) *Vortex knots dynamics in Euler fluids and optimal kinematics of elastic filaments*, UEA, Norwich (UK).

123. (Oct. 30, 2012) *Optimal kinematics of supercoiled filaments*, Isaac Newton Institute for Mathematical Sciences, Cambridge (UK).

124. (Nov. 5, 2012) *Bounds for stochastic optimization programs*, Department of Statistics and Operations Research, University of Vienna (A).

125. (Apr. 4, 2013) *Bounds and approximations in mulstistage stochastic programming*, Politecnico di Torino (I).

126. (Oct. 18, 2013) *Bounds and approximations in multistage stochastic programs with application to logistics and transportation*, CIRRELT, Montreal (CDN).

127. (Oct. 17, 2014) *Monotonic bounds for a stochastic multistage mixed-integer supply transportation problem*, CIRRELT, Montreal (CDN).

128. (May 21, 2015) *Bounds and approximations for stochastic multistage programs*, University of Salerno (I).

129. (Oct. 30, 2015) *The generalized skeleton solution: a new measure of the quality of the deterministic solution in stochastic programming*, CIRRELT, Montreal (CDN).

130. (Dec. 17, 2015) *Monotonic bounds and approximation in multistage stochastic programs*, Department of Statistics and Operations Research, University of Vienna (A).

131. (May 12, 2016) *Bounds and approximations in stochastic programming*, Department of Electrical, Electronic, and Information Engineering Guglielmo Marconi, University of Bologna (I).

132. (May 17, 2016) *L'energia minima dei nodi*, Università Cattolica del Sacro Cuore of Brescia (I).

133. (Apr. 5, 2017) *La bellezza e l'ulità della matematica, Omaggio a Marida Bertocchi*, Ateneo di Scienze Lettere ed Arti of Bergamo (I).

134. (Apr. 4 − 6, 2018) *Guaranteed bounds for multistage risk-averse stochastic optimization programs*, Department of Probability and Mathematical Statistics, Faculty of Mathematics and Physics, Charles University in Prague (CZ).

135. (Mar. 31 − Apr., 14 2019), *Bounding Multistage Stochastic Programs*, Department of Mathematical Sciences, Stevens Institute of Technology (USA).

136. (Feb. 18, 2020) *Blockchain e Bitcoin: un'introduzione*, Comunità Montana Valle Seriana (I).

137. (May 13, 2021) *Bounding and Sampling in Optimization under Uncertainty*, Department of Management Information and Production Engineering, University of Bergamo (I).

138. (Jun. 9, 2021) *An interpretable machine learning based mortality prediction model for COVID-19 in the area of Val Camonica, Italy*, Ateneo di Scienze Lettere ed Arti di Bergamo (online) (I).

139. (Jan. 7, 2022) *Un algoritmo di apprendimento automatico per l'ottimizzazione delle cure di pazienti COVID-19.* Ciclo di incontri "Intelligenza artificiale e computer che apprendono", Centro MatNet-CQIA, University of Bergamo and Mathesis Bergamo (online) (I).

140. (Apr. 21, 2023) *Ottimizzazione e Machine Learning.* Ciclo di incontri "Intelligenza artificiale e computer che apprendono", Centro MatNet-CQIIA, University of Bergamo and Mathesis Bergamo (I).

141. (May 11, 2023) *Bounding Multistage Optimization Programs under Uncertainty*, online seminar series organized by Anand Subramanian in collaboration with AIRO Young.

142. (Sep. 4, 2023) *Ottimizzazione e Machine Learning.* Summer School "Matematica e Intelligenza Artificiale: modelli e algoritmi per le macchine che apprendono", San Pellegrino Terme, Bergamo (I).

143. (Apr. 4, 2024) *Ottimizzazione in condizioni di incertezza.* Almo Collegio Borromeo, Pavia (I).

144. (Apr. 12, 2024) *Machine learning: algoritmi, consenso e responsabilità*, Medical Informed Consent, Artificial Intelligence and Law (MED-ICAiL) PRIN 2022, Tavoli interdisciplinari, University of Bergamo (I).

Invited Short Courses

145. (Nov. 17 − 23, 2013) **Master Course**: *Introduction to stochastic programming and its applications to energy and logistics*, KTU, Kaunas (LT).

146. (Mar. 10 − 15, 2014) **PhD Course**: *Stochastic programming and its applications to networks, energy and logistics problems*, Politecnico di Torino (I).

Research Periods Abroad for Scientific Collaborations

She spent the following periods abroad for scientific collaborations with international colleagues:

- (May 16 − Jun. 25, 2007) Molde University College, Norwegian school of Logistic (N). Research collaboration with: Dr. Michal Kaut and Prof. Stein W. Wallace.
- (Mar. 28 − Apr. 8, 2008) School of Mathematics and Statistics, University of Newcastle, Newcastle upon Tyne (UK). Research collaboration with: Prof. Carlo F. Barenghi and Dr. Sultan Alamri.
- (Apr. 14 − 19, 2009) School of Mathematics and Statistics, University of Newcastle, Newcastle upon Tyne (UK). Research collaboration with: Prof. Carlo F. Barenghi and Dr. Sultan Alamri.
- (Mar. 8 − 10, 2010) Oxford Centre for Collaborative Applied Mathematics, Oxford (UK). Research collaboration with: Prof. Alain Goriely.
- (Nov. 3, 2009 − May, 2010) Department of Management Science, Lancaster University Management School, Lancaster (UK). Research collaboration with: Prof. Stein W. Wallace.
- (Nov. 17 − 26, 2011) Department of Mathematics & Statistics, University of Maryland, (USA). Research collaboration with: Prof. Florian A. Potra.
- (Sep. 1 − Nov. 30, 2012) Isaac Newton Institute for Mathematical Science, Invitation to participate to the program "Topological Dynamics in the Physical and Biological Sciences", Cambridge (UK).
- (Nov. 3 − 6, 2012) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.

- (Oct. 14 − 21, 2013) Centre Interuniversitaire de Recherche sur les Reseaux d'Entreprise (CIRRELT), la Logistique et le Transport, Montreal (CND). Research collaboration with: Prof. Theodor G. Crainic and Prof. Walter Rei.
- (Oct. 12 − 20, 2014) Centre Interuniversitaire de Recherche sur les Reseaux d'Entreprise, la Logistique et le Transport (CIRRELT), Montreal (CND). Research collaboration with: Prof. Theodor G. Crainic and Prof. Walter Rei.
- (Dec. 1 − 3, 2014) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.
- (Oct. 25 − 31, 2015) Centre Interuniversitaire de Recherche sur les Reseaux d'Entreprise (CIRRELT), la Logistique et le Transport, Montreal (CND). Research collaboration with: Prof. Theodor G. Crainic and Prof. Walter Rei.
- (Dec. 13 − 20, 2015) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.
- (Apr. 19 − 21, 2017) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.
- (Nov. 15 − 29, 2017) Laboratoire de Recherche en Informatique (LRI), University of Paris Sud, (F). Research collaboration with: Prof. Abdel Lisser.
- (Feb. 15 − 20, 2018) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.
- (Jul. 11 − 14, 2018) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Georg Ch. Pflug.
- (Jan. 7 − 12, 2019) Department of Statistics and Operations Research, University of Vienna (A). Research collaboration with: Prof. Immanuel Bomze and Prof. Georg Ch. Pflug.
- (Feb. 12 − Mar. 3, 2019) Laboratoire de Recherche en Informatique (LRI), University of Paris Sud, (F). Research collaboration with: Prof. Abdel Lisser.
- (Mar. 31 − Apr. 14, 2019) Department of Mathematical Sciences, Stevens Institute of Technology (USA). Research collaboration with: Prof. Darinka Dentcheva.

Organization of Conferences, Workshops, Schools and Webinars

She took part of the organization of the following conferences, workshops, schools and webinar series as chair or member of the organizing and program/scientific committee:

- **Chair of the Organizing and Program Committee**
  - (Jan. 15 – 21, 2017) Ph.D. Winter School: Stochastic Programming with Applications in Energy, Logistics and Finance (co-chair: A. Tomasgard), Passo del Tonale (I).
  - (May 19 – 25, 2022) Robustness and Resilience in Stochastic Optimization and Statistical Learning: Mathematical Foundations (co-directors L. El Ghaoui, A. Jofré and J.O. Royset), Ettore Majorana Foundation and Centre for Scientific Culture, Erice (I) `https://workshopsperice2022.github.io/ConferenceProgramme.pdf`.
  - (May 18, 2023) Urban Logistics and Sustainable Transportation: Optimization under Uncertainty and Machine Learning, Kick-off Workshop of the PRIN 2020 project, Bergamo (I).
  - (Sep. 15 – 25, 2024) EURO Summer Institute: Decision-making under Uncertainty for Commodities and Financial Markets (co-chair: R. D'Ecclesia), Ischia, Naples (I) `https://esi2024.unibg.it`.
- **Chair of the Program Committee**
  - (Jul. 4 – 5, 2024) Joint European Conference on Stochastic Optimization and Computational Management Science Conference (ECSO-CMS 2024), (co-chairs: A. Siddiqui, S.E. Fleter and D. Barro), Stockholm (SE), `https://equinocs.springernature.com/service/ECSO-CMS2024`.
- **Chair of the Conference Site Advisory Committee (CSAC)**
  - (2023) to solicit proposals for the International Conference on Stochastic Programming (ICSP) to be held in summer 2025.
- **Member of the Organizing and Scientific Committee**
  - (Jul. 6 – 12, 2013) XIII International Conference on Stochastic Programming (ICSP XIII), Bergamo (I).
  - (May 29 – Jun. 1, 2017) Computational Management Science Conference (CMS 2017), Bergamo (I).
- **Member of the Scientific Committee**
  - (Sep. 25 – 27, 2014) EURO Mini Conference on Stochastic Programming and Energy Applications (ESPC-2014), Paris (F).
  - (Sep. 20 – 22, 2017) European Conference on Stochastic Optimization (ECSO 2017), Rome (I).

- (May 29 – 31, 2018) Computational Management Science Conference (CMS 2018), Trondheim (N).
- (Jul. 29 – Aug. 2, 2019) International Conference on Stochastic Programming (ICSP XV), Trondheim (N).
- (Jun. 29 – Jul. 1, 2022) Joint 3^{rd} European Conference on Stochastic Optimization and 17^{th} Computational Management Science Conference (ECSO-CMS 2022), Venice (I).
- (Aug. 30 – Sep. 2, 2022) International Conference on Optimization and Decision Science 51^{st} meeting of AIRO - Italian Operations Research Society (ODS 2022), Firenze (I).
- (Sep. 25 – 27, 2024) INFORMS TSL 2024: Optimizing Transportation and Logistics under Uncertainty, Nantes (F).

- **Member of the Program Committee**
  - (Jul. 3 – 6, 2022) 32^{nd} European Conference on Operational Research (EURO 2022), Espoo (FIN).
  - (Sep. 8 – 12, 2024) International Conference on Optimization And Decision Science (ODS 2024), Badesi, Sardinia (I).

- **Member of the Organizing Committee**
  - (Nov. 23 – 28, 2009) CARIPLO Stochastic Programming School (SPS 2009), University of Bergamo (I).

- **Webinar Series Organizer**
  - (2020) Organizer with COSP of the virtual seminar series "Decision Making in an Uncertain World" `https://www.stoprog.org/sps-virtual-seminar-series`.

- **Invited Areas Organizer and Chair in Conferences**
  - (Jul. 3–6, 2022) Queueing and Stochastics (with A. Alonso Ayuso), 32^{nd} European Conference on Operational Research (EURO 2022), Espoo (FIN).
  - (Jul. 3–6, 2022) Financial Modeling and Risk (with N. Krejic), 32^{nd} European Conference on Operational Research (EURO 2022), Espoo (FIN).

- **Invited Streams Organizer and Chair in Conferences**
  - (Jul. 13 – 18, 2014) Stochastic Models for Service Operations, IFORS Triennial Conference, Barcelona (S).
  - (Jul. 8 – 11, 2018) Stochastic and Robust Optimization (with M. Kopa), 29 European Conference on Operational Research (EURO 2018), Valencia (S).
  - (Jun. 23 – 26, 2019) Stochastic and Robust Optimization (with M. Kopa), 30^{th} European Conference on Operational Research (EURO 2019), Dublin (IRL).

– (Jul. 11 – 14, 2021) Stochastic and Robust Optimization (with M. Kopa and S. Rebennack), 31^{st} European Conference on Operational Research (EURO 2021), Athens (GR).

– (Sep. 14 – 17, 2021) Optimization under Uncertainty: Theory and Applications (with P. Beraldi), AIRO Thematic Session on Stochastic Programming, International Conference on Optimization and Decision Science (ODS 2021), Rome (I).

– (Jul. 3 – 6, 2022) Stochastic and Robust Optimization (with M. Kopa and A. Alonso Ayuso), 32^{nd} European Conference on Operational Research (EURO 2022), Espoo (FIN).

– (Sep. 4 – 7, 2023) AIRO Thematic Section on Stochastic Programming (with P. Beraldi), International Conference on Optimization and Decision Science (ODS 2023), Ischia (I).

– (Jun. 30 – Jul. 3, 2024), Stochastic, Robust and Distributionally Robust Optimization (with M. Kopa), 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

- **Mini-Symposia Organizer and Chair in Conferences**

  – (Jul. 29 – Aug. 2, 2019) Bounds and Approximations in Optimization under Uncertainty, XV International Conference on Stochastic Programming (ICSP 2019), Trondheim (N).

  – (Jun. 29 – Jul. 1, 2022) Solution Methods for Uncertain Multistage Decision Problems, European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2022), Venice (I).

  – (Jun. 29 – Jul. 1, 2022) Interfaces Between Machine Learning and Stochastic Programming, European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2022), Venice (I).

  – (Jul. 24 – 28, 2023) Solution Methods for Distributionally Robust Optimization Problems, Parts I and II, XVI International Conference on Stochastic Programming (ICSP 2023), Davis, California (USA).

- **Invited Sessions Organizer and Chair in Conferences**

  – (Jul. 1 – 4, 2013) Nonlinear Optimization in Mathematical Biology, EURO-INFORMS Conference, Rome (I).

  – (Apr. 9 – 11, 2014) Uncertainty in Logistics and Transportation, International Conference on Applied Mathematical Optimization and Modelling (APMOD 2014), Warwick (UK).

  – (Sep. 24 – 26, 2014) Stochastic Programming in Logistics and Transportation, EURO Mini Conference on Stochastic Programming and Energy Applications, Paris (F).

  – (Jun. 25 – Jul. 1, 2016) Bounds and Decomposition Methods in Stochastic Programming, XIV International Conference on Stochastic Optimization (ICSP XIV), Buzios (B).

– (Sep. 6 – 9, 2016) Stochastic Programming in Logistics (with L. Bertazzi), 46^{th} Annual Conference of the Italian Operations Research Society (AIRO 2016), Trieste (I).
– (May 29 – Jun. 1, 2017) Uncertainty in Logistics and Transportation, XIV Conference on Computational Management Science (CMS 2017), Bergamo (I).
– (Sep. 4 – 7, 2017) Stochastic Programming, International Conference on Optimization and Decision Science, XLVII Annual Meeting of AIRO (ODS 2017), Sorrento (I).
– (Sep. 20 – 22, 2017) Ambiguity and Uncertainty in Financial Optimization, European Conference on Stochastic Optimization (ECSO 2017), Rome (I).
– (Sep. 20 – 22, 2017) Risk Aversion and Stochastic Dominance in Stochastic Programming, European Conference on Stochastic Optimization (ECSO 2017), Rome (I).
– (May 29 – 31, 2018) Bounds and Approximations in Stochastic Programming, Computational Management Science Conference (CMS 2018), Trondheim (N).
– (May 29 – 31, 2018) Optimization under Uncertainty in Logistics and Transportation, Computational Management Science Conference (CMS 2018), Trondheim (N).
– (Jul. 8 – 11, 2018) Advances in Stochastic and Robust Optimization, 29^{th} European Conference on Operational Research (EURO 2018), Valencia (S).
– (Jul. 8 – 11, 2018) Robust and Distributionally Robust Optimization, 29^{th} European Conference on Operational Research (EURO 2018), Valencia (S).
– (Sep. 10 – 13, 2018) Optimization under Uncertainty, International Conference on Optimization and Decision Science, XLVIII Annual Meeting of AIRO (ODS 2018), Taormina (I).
– (Sep. 13 – 15, 2018) Optimization under Uncertainty, 42^{nd} Annual Meeting of the AMASES Association for Mathematics Applied to Social and Economic Sciences, (AMASES 2018), Napoli (I).
– (Jun. 23 – 26, 2019) Stochastic Orders in Financial Applications, 30^{th} European Conference on Operational Research (EURO 2019), Dublin (IRL).
– (Jun. 23 – 26, 2019) Optimization under Uncertainty: Theory and Applications, 30^{th} European Conference on Operational Research (EURO 2019), Dublin (IRL).
– (Sep. 4 – 7, 2019) Optimization under Uncertainty and Applications, International Conference on Optimization and Decision Science, XLIX Annual Meeting of AIRO (ODS 2019), Genova (I).
– (Nov. 19, 2020) Optimization under Uncertainty, International Conference on Optimization and Decision Science (ODS 2020), online (I).
– (Jul. 12 – 14, 2021) Advances in Optimization under Uncertainty, 31^{st} European Conference on Operational Research (EURO 2021), Athens (G).
– (Jul. 12 – 14, 2021) Advances in Distributionally Robust Optimization and Risk Averse Optimization, 31^{st} European Conference on Operational Research (EURO 2021), Athens (G).

– (Jul. 12 – 14, 2021) Optimization under Uncertainty for Production and Supply Chain Management, 31^{st} European Conference on Operational Research (EURO 2021), Athens (G).

– (Jul. 12 – 14, 2021) Optimization under Uncertainty in Energy and Waste Management, 31^{st} European Conference on Operational Research (EURO 2021), Athens (G).

– (Sep. 14 – 17, 2021) Advances in Optimization under Uncertainty, International Conference on Optimization and Decision Science (ODS 2021), Rome (I).

– (Sep. 14 – 17, 2021) Stochastic Programming in Energy and Logistics, International Conference on Optimization and Decision Science (ODS 2021), Rome (I).

– (Jun. 29 – Jul. 1, 2022) Advances in Stochastic Programming, European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2022), Venice (I).

– (Jun. 29 – Jul. 1, 2022) Interfaces between Machine Learning and Stochastic Programming, European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2022), Venice (I).

– (Sep. 4 – 7, 2023) Urban Logistics and Sustainable Transportation: Optimization under Uncertainty and Machine Learning, International Conference on Optimization and Decision Science (ODS 2023), Ischia (I).

– (Jun. 30 – Jul. 3, 2024) Urban Logistics and Sustainable Transportation: Optimization under Uncertainty and Machine Learning, 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

– (Jun. 30 – Jul. 3, 2024) Robust and Stochastic Routing Problems (with D. Manerba and F. Vocaturo), 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

– (Jun. 30 – Jul. 3, 2024) Optimization under Uncertainty: Theory and Solution Algorithms, 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

– (Jun. 30 – Jul. 3, 2024) Contextual Stochastic Optimization (with G. Bayraksan), 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

– (Jun. 30 – Jul. 3, 2024) Location and Transportation Problems under Uncertainty (with F. Vocaturo), 33^{rd} European Conference on Operational Research (EURO 2024), Copenhagen (DK).

– (Jul. 4 – 5, 2024) Multi-Horizon Optimization Problems under Uncertainty (with G. Bayraksan), European Conference on Stochastic Optimization and Computational Management Science (ECSO-CMS 2024), Stockholm (SE).

– (Jul. 21 – 26, 2024) Multistage Optimization Programs under Uncertainty, 25^{th} International Symposium on Mathematical Programming (ISMP 2024), Montréal (CA).

Institutional Activities

She has been:

- **Coordinator** of the CQIIA-MatNet centre for teaching of mathematics and its applications, University of Bergamo (2022 – now).
  Here below are listed the related activities:
  - (Sep. 5 – 7, 2022) Chair of the summer school: *Matematica e Scienze della Vita: modelli e algoritmi della salute*, San Pellegrino Terme, Bergamo (I).
  - (Sep. 4 – 6, 2023) Chair of the summer school: *Matematica e Intelligenza Artificiale: modelli e algoritmi per le macchine che apprendono*, San Pellegrino Terme, Bergamo (I).
  - (Spring 2023) Organizer of the seminar series: *Intelligenza artificiale e computer che apprendono*, with Mathesis Bergamo APS and Department of Management, Information and Production Engineering, University of Bergamo (I).
  - (Spring 2023) Organizer of the seminar series: *Matematica & Arte, Letteratura e Musica*, with Mathesis Bergamo APS and Department of Management, Information and Production Engineering, University of Bergamo (I).
  - (Spring 2024) Organizer of the seminar series: *Matematica e Intelligenza artificiale*, with Mathesis Bergamo APS (*Piano Lauree Scientifiche*, PLS grant).
  - (Spring 2024) Organizer of the seminar series on: *Matematica & Storia, Letteratura, Differenze di genere e Finanza*, with Mathesis Bergamo APS, (*Piano Lauree Scientifiche*, PLS grant).
- **Reference person for the following activities**
  - (2015 – present) Erasmus International Exchange Program of the University of Bergamo with Kaunas University of Technology (KTU), (LT) `https://en.unibg.it/accordi_accordi/accordo-di-mobilita-kaunas-lituania`.
  - (May 2015 – Sep. 2021) Referent for *Sportello Matematico per l'Industria Italiana* at the Department of Management, Economics and Quantitative Methods of the University of Bergamo (I).
  - (Jan. 2019 – Sep. 2021) Representative of the adjunct professors of the Faculty of Mathematics, Physics and Natural Sciences of Università Cattolica del Sacro Cuore of Brescia (I).
  - (until 2020) Organizer of departmental seminars (Statistics and Mathematics areas), at the Department of Management, Economics and Quantitative Methods, University of Bergamo (I).
  - (until Sep. 2021) Referent for *INdAM - Istituto Nazionale di Alta Matematica Francesco Severi* (Director of the Research Unit of Bergamo Prof. L. Brandolini) for the Department of Management, Economics and Quantitative Methods of the University of Bergamo (I).

- (until 2021) Referent for preliminary examination of student practices (mathematical area) for the Department of Management, Economics and Quantitative Methods, University of Bergamo (I).
- (until 2021) Referent for study plans orientation (mathematical area) of the Department of Management, Economics and Quantitative Methods, University of Bergamo (I).
- (Dec. 2021 – now) Referent for *Sportello Matematico per l'Innovazione e le Imprese* at the Department of Management, Information and Production Engineering of the University of Bergamo (I).

- **Member of the following Committees and Councils**
  - (2005 – 2014) Committee Orientation and Tutoring (mathematical area), Faculty of Economics, University of Bergamo (I).
  - (2006 – 2021) Council of *Economia Aziendale*, Department of Management Economics and Quantitative Methods, University of Bergamo (I).
  - (2009 – 2018) Research Committee (*Consiglio della Ricerca*), Department of Management, Economics and Quantitative Methods, University of Bergamo (I).
  - (2021 – now) Council of *Ingegneria Informatica*, Department of Management, Information and Production Engineering, University of Bergamo (I).
  - (2021 – now) Evaluation committee of several post-doc and assistant professor positions at the University of Bergamo, University of Brescia, University of Catania and Politecnico of Milano (president or member) (I).
  - (2022 – now) Committee for the activation project of an interdepartmental bachelor degree between the Department of Economics and Department of Management, Information and Production Engineering of the University of Bergamo (I).
  - (2023 – 2026) Research Committee (*Consiglio della Ricerca*), Department of Management, Information and Production Engineering, University of Bergamo (I).

Teaching Activities

Bachelor's Degree Programs

- **Professor of the following courses**
  - (2007/2008, 2008/2009) Mathematical methods for economics and finance (*Metodi matematici per l'Economia e la finanza*, in Italian, *Laurea triennale in Informatica e Comunicazione per la Finanza e l'Impresa*, 9 CFU), Faculty of Economics, University of Bergamo (I), 72 hours.
  - (a.y. 2009/2010, 2011/2012, 2016/2017, 2017/2018) OFA of mathematics (*Obblighi formativi aggiuntivi di Matematica*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 2009/2010 48 hours, 2011/2012 16 hours, 2016/2017 30 hours, 2017/2018 12 hours.

- (2009/2010) OFA of mathematics (*Obblighi formativi aggiuntivi di Matematica*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Faculty of Economics, Treviglio, University of Bergamo (I), 48 hours.
- (2010/2011, 2018/2019, 2019/2020, 2020/2021) Elements of mathematics (*Elementi di matematica*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 48 hours.
- (2011/2012, 2012/2013) Elements of mathematics (*Elementi di matematica*, in Italian, *Laurea triennale in Economia Aziendale*, 3 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 24 hours.
- (2013/2014, 2015/2016, 2016/2017, 2017/2018) Operations research (*Ricerca operativa*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 48 hours.
- (2018/2019, 2019/2020) Operations research and business applications (*Ricerca operativa e applicazioni aziendali*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 48 hours.
- (2020/2021) Methods and models for decision making (*Metodi e modelli per le decisioni aziendali*, in Italian, *Laurea triennale in Economia Aziendale*, 6 CFU), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 48 hours.
- (2021/2022, 2022/2023, 2023/2024) Operations research (*Ricerca operativa*, in Italian, *Laurea triennale in Ingegneria Gestionale*, 6 CFU), Department of Management, Information and Production Engineering, University of Bergamo (I), 2021/2022 48 hours, 2022/2023 64 hours, 2023/2024 32 hours.

- **Teaching assistant of the following courses**
  - (2003/2004, 2004/2005) Linear algebra and geometry (*Algebra Lineare e Geometria*, in Italian), Faculty of Engineering, University of Brescia (I).
  - (2003/2004, 2004/2005, 2005/2006) Complements of geometry (*Complementi di geometria*, in Italian), Faculty of Mathematical, Physical and Natural Sciences, Università Cattolica del Sacro Cuore of Brescia (I).
  - (2004/2005) Mathematics (*Matematica*, in Italian), Faculty of Economics, University of Bergamo (I).
  - (2012/2013) Operations research (*Ricerca operativa*, in Italian), Faculty of Economics, University of Bergamo (I).
  - (2013/2014, 2014/2015, 2015/2016) Elements of mathematics (*Elementi di matematica*, in Italian, *Laurea triennale in Economia Aziendale*) Department of Management, Economics and Quantitative Methods, University of Bergamo (I).

- **Exam committee member of the following courses**
  - (2003/2004, 2004/2005, 2005/2006) Geometry 1, Geometry 2, Geometry 3, Complements of geometry, Deepening of geometry 2, Superior geometry 1, Institutions of superior geometry 1 (*Geometria 1-2-3, Complementi di geometria, Approfondimenti di geometria, Geometria superiore 1, Istituzioni di geometria superiore 1*, in Italian), Faculty of Mathematical, Physical and Natural Sciences, Università Cattolica del Sacro Cuore of Brescia (I).
  - (2005/2006) Financial mathematics (*Matematica finanziaria*, in Italian), Faculty of Economics, University of Brescia (I).
- **Tutor**
  - (2001/2002, 2002/2003, 2003/2004 2004/2005, 2005/2006) Faculty of Mathematical, Physical and Natural Sciences, Università Cattolica del Sacro Cuore of Brescia (I).

Master's Degree Programs

- **Professor of the following courses**
  - (2013/2014, 2014/2015, 2015/2016, 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021) Quantitative models for decision making, 6CFU (with M.T. Vespucci), Department of Management, Economics and Quantitative Methods, University of Bergamo (I), 2013/2014 – 2019/2020 16 hours, 2020/2021 24 hours.
  - (2014/2015, 2015/2016, 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2022/2023, 2023/2024) Operational research (*Ricerca Operativa*, some years in Italian, others in English 6 CFU), Faculty of Mathematical, Physical and Natural Sciences, Università Cattolica of Brescia (I), 2014/2015 – 2022/2023 40 hours, 2023/2024 20 hours.
  - (2021/2022, 2022/2023, 2023/2024) Numerical Analysis (*Calcolo Numerico*, in Italian, *Laurea Magistrale in Ingegneria Meccanica*, 6 CFU), Department of Engineering and Applied Sciences, University of Bergamo (I), 32 hours.
  - (2022/2023, 2023/2024) Optimization (*Ottimizzazione*, in English, *Laurea Magistrale in Ingegneria Informatica*, 3 CFU), Department of Management, Information and Production Engineering, University of Bergamo (I), 24 hours.
  - (2022/2023, 2023/2024) Financial and insurance risk modelling, 6 CFU Master degree in Economics and Finance, Department of Economics, University of Bergamo (I), 48 hours.
  - (2023/2024) Optimization for healthcare problems, Master degree in Engineering and Management for Health, 6 CFU Department of Management, Information and Production Engineering, University of Bergamo (I), 32 hours.
- **Teaching assistant of the following courses**
  - (2004/2005, 2005/2006) Methods of Optimization (*Metodi di Ottimizzazione*, in Italian), Faculty of Economics, University of Brescia (I).

– (2014/2015) Introduction to Logistics, Department of Economics and Management, University of Brescia (I).

Doctoral Programs

- **Professor of the following courses**
  - (2008/2009, 2010/2011, 2011/2012, 2016/2017) Measure theory, course of the doctorate program in Computational Methods for Forecasting and Decisions in Economics and Finance, University of Bergamo (I), 18 hours.
  - (2011/2012, 2013/2014, 2014/2015, 2015/2016, 2016/2017) Introduction to Stochastic Programming, course of the doctorate program in Computational Methods for Forecasting and Decisions in Economics and Finance, University of Bergamo (I).
  - (2012/2013, 2013/2014, 2014/2015, 2015/2016, 2016/2017) Non linear optimization, course of the doctorate program in Computational Methods for Forecasting and Decisions in Economics and Finance, University of Bergamo (I).
  - (2017/2018, 2018/2019, 2019/2020, 2020/2021) Mathematics for economics and management, course of the doctorate program in Applied Economics and Management, Universities of Bergamo and Pavia (I), 6 hours.
  - (2018/2019, 2019/2020) Operations research for applied economics, course of the doctorate program in Applied Economics and Management, Universities of Bergamo and Pavia (I), 2018/2019 6 hours, 2019/2020 9 hours.
  - (2020/2021, 2021/2022, 2022/2023) Optimization, course of the doctorate program in Applied Economics and Management, Universities of Bergamo and Pavia (I), 2020/2021 18 hours, 2021/2022 and 2022/2023 9 hours.

Post Lauream

- **Professor of the following courses**
  - (2005/2006) Mathematics (*Matematica*, in Italian), First level Master Energy Risk Management, University of Milano-Bicocca and University of Bergamo (I).
  - (2006/2007) Fundaments and teaching of geometry and laboratory of fundaments and teaching of geometry (*Fondamenti e didattica della geometria e laboratorio di Fondamenti e didattica della geometria*, in Italian), *Corsi speciali abilitanti Silsis*, sections of Bergamo and Brescia (I), 40 hours.
  - (2022/2023, 2023/2024) Optimization for management decisions (*Ottimizzazione per decisioni aziendali*, in Italian), Data Analyst per Decisioni Strategiche – DADS, *SdM Scuola di Alta Formazione*, University of Bergamo (I), 8 hours.

Membership of the Teaching Council of Doctoral Programs

- (2006 – 2009) **Metodi Computazionali per le Previsioni e Decisioni Economiche e Finanziarie**, University of Bergamo, cycles XXII, XXIII, XXIV, XXV.

- (2013 – 2020) **Analytics for Economics and Business**, Universities of Bergamo and Brescia, cycles XXIX, XXX,XXXI, XXXII.
- (2017 – now) **Applied Economics and Management**, Universities of Bergamo and Pavia, cycles XXXIII-XXXIV-XXXV-XXXVI-XXXVII-XXXVIII.

Supervision of Doctoral Students and Postdoctoral Fellows

She has supervised the following doctoral students and postdoctoral fellows:

- **Doctoral Students**
  - **Matteo Cagnolari**, Doctorate program in Analytics for Economics and Business, cycle XXIX (co-supervisor L. Bertazzi).
    Title of the Thesis: The value of the right distribution for the newsvendor problem and a bikesharing problem.
  - **Sarem Deylami**, Doctorate program in Analytics for Economics and Business, cycle XXX (co-supervisor L. Bertazzi).
    Title of the Thesis: Optimization models in logistics.
  - **Rossana Cavagnini**, Doctorate program in Analytics for Economics and Business, cycle XXXI (co-supervisor L. Bertazzi).
    Title of the Thesis: Stochastic programming models for distribution logistics, bikesharing and production management.
  - **Daniel Faccini**, Doctorate program in Applied Economics and Management, University of Bergamo and Pavia, cycle XXXIV.
    Title of the Thesis: Models and approximations for optimization problems under uncertainty with applications to support vector machine and revenue management.
  - **Andrea Spinelli**, Ph.D. candidate of the Doctorate program in Applied Economics and Management, University of Bergamo and Pavia, cycle XXXVI.
    Title of the Thesis: Optimization under uncertainty: applications to machine learning and waste management.
  - **Paolo Beatrici**, Ph.D. candidate of the Doctorate program in Technology Innovation and Management, Universities of Bergamo and Naples, cycle XXXIX.
  - **Ali Sherafat** Ph.D. candidate of the Doctorate program in Technology Innovation and Management, Universities of Bergamo and Naples, cycle XXXIX.
  - **Benjamin Narum**, Ph.D. candidate of the Norwegian School of Economics, Bergen (N). Main supervisor prof. Stein W. Wallace.
- **Postdoctoral Fellows**
  - Dr. **Dario Bezzi** (Jul. 2022 - Dec. 2023);
  - Mr. **Andrea Spinelli** (Jan. 2024 - Dec. 2025);

She has co-supervised the following postdoctoral fellows:

  - Dr. **Davide Lauria** (2017) (main supervisor G. Consigli)
    Title of the research project: Modelli analitici per la valutazione dei rischi e la gestione di passività pensionistiche di natura complementare (Pillar 2).
  - Dr. **Giovanni Micheli** (2022-2023) (main supervisor MT. Vespucci).

- **Bachelor and Master Students**
  She has supervised **more than 50 bachelor and master students** at the University of Bergamo and Università Cattolica del Sacro Cuore of Brescia (I).

- **Students' Prizes**
  Here below are listed her students' prizes:

  - (Jul. 2017) **Rossana Cavagnini** received the *TSL 2016 Cross Regional Doctoral Grant*. (co-supervisor L. Bertazzi).
  - (Dec. 2017) **Francesca Sala** (bachelor student in Business Economics) received the prize *UniveristAccademia* for a thesis on "Optimizing the timetabling of the University of Bergamo".
  - (Jul. 2018) **Daniel Faccini** (master student in Business Economics) received the prize *Rotary Club Dalmine Centenario* from Rotary for a master thesis on "Geometric, Algebric and Computational Approaches on the Cutting Plane Method".
  - (Dec. 2018) **Daniel Faccini** (Ph.D. student in Applied Economics and Management) received the prize as best student of the Department of Management, Economics and Quantitative Methods, University of Bergamo of the year 2018. The price has been granted by *Luberg*, the association of Laureates of the University of Bergamo.
  - (Apr. 2021) **Daniel Faccini** (Ph.D. student in Applied Economics and Management) received the *Best Presentation Award*, 5th AIRO Young Workshop.
  - (Apr. 2021) **Daniel Faccini** (Ph.D. student in Applied Economics and Management) received the prize *Giovanni Manera 2020-2021* granted by the University of Pavia.
  - (Feb. 2022) **Andrea Spinelli** (Ph.D. student in Applied Economics and Management) received the International Mobility Grant - XII edition granted by University of Pavia.
  - (Mar. 2023) **Andrea Spinelli** (Ph.D. student in Applied Economics and Management) received the prize *Giovanni Manera 2023* granted by the University of Pavia.
  - (Mar. 2023) **Andrea Spinelli** (Ph.D. student in Applied Economics and Management) was awarded as local winner of the Three Minutes Thesis (3MT) competition - VII edition - University of Pavia.

Juries and External Evaluator of Doctoral Students

She has been nominated chair or member of the jury of prizes and external evaluator of doctoral students as listed below:

- **Chair of Juries**
  - (Jul. 4 – 5, 2024) CMS Student Best Paper Prize, Joint European Conference on Stochastic Optimization and Computational Management Science Conference (ECSO-CMS 2024), Stockholm (SE), `https://ecso-cms2024.blogs.dsv.su.se/phd-forum/`.
- **Member of Juries**
  - (May 29 – Jun. 1, 2017) CMS Student Best Paper Prize, Computational Management Science Conference (CMS 2017), Bergamo (I).
  - (May 29 – 31, 2018) CMS Student Best Paper Prize, Computational Management Science Conference (CMS 2018), Trondheim (N), `https://www.ntnu.edu/cms2018/international-conference-on-computational-management-science`.
  - (Mar. 27 – 29, 2019) CMS Student Best Paper Prize, Computational Management Science Conference (CMS 2019), Chemnitz (D).
  - (Aug. 14 – 19, 2021) Tucker Prize, Mathematical Optimization Society, 24^{th} International Symposium of Mathematical Programming (ISMP 2021), `https://www.mathopt.org/?nav=tucker`.
  - (Jun. 29 – Jul. 1, 2022) CMS Student Best Paper Prize, Joint 3^{rd} European Conference on Stochastic Optimization and 17^{th} Computational Management Science Conference (ECSO-CMS 2022), Venice (I), `https://www.unive.it/pag/38159`.
  - (Jul. 21 – 26, 2024) Tucker Prize, Mathematical Optimization Society, 25^{th} International Symposium of Mathematical Programming (ISMP 2024), Montréal (CA), `https://www.mathopt.org/?nav=tucker_call`.
- **External evaluator of doctoral students**
  - (Nov. 2018) Candidate: **Vít Procházka**, Norwegian School of Economics, Bergen (N).
    Title of the thesis: Uncertainty Modeling and Spatial Positioning in Tramp Shipping.
  - (Mar. 2019) Candidate: **Mariangela Rosano**, Ph.D. Program in Computer and Control Engineering, cycle XXXI, Politecnico di Torino (I).
    Title of the thesis: Mixing quantitative and qualitative methods for sustainable transportation in Smart Cities.
  - (Jun. 2019) Candidate: **Cheng Peng**, Ph.D. Program in Computer Science, Université Paris Sud (F).
    Title of the thesis: Chance Constrained Problem and Its Applications.

– (Sep. 2019) Candidate: **Jakub Kudela**, Brno University of Technology, Faculty of Mechanical Engineering, Institute of Mathematics, Brno (CZ).
Title of the thesis: Advanced Decomposition Methods in Stochastic Convex Optimization.

– (Dec. 2021) Candidate: **Thomas Martin**, Ecole des Ponts ParisTech (F).
Title of the thesis: Stochastic optimization for the procurement of crude oil in refineries.

– (Dec. 2021) Candidate: **Martin Biel**, KTH Royal Institute of Technology, Stockholm (SE).
Title of the thesis: Distributed Stochastic Programming with Applications to Large-Scale Hydropower Operations.

– (Sep. 2022) Candidate: **Teresa Crupi**, Università della Calabria (I).
Title of the thesis: Clustering Problems: a spherical separation approach.

– (Oct. 2022) Candidate: **Riccardo Giusti**, Politecnico di Torino (I).
Title of the thesis: Optimization-based integration platform for Synchromodal Logistics.

– (Dec. 2022) Candidate: **Maël Forcier**, Ecole des Ponts ParisTech (F).
Title of the thesis: Multistage stochastic optimization and polyhedral geometry.

– (Oct. 2023) Candidate: **Zhonghua Su**, NTNU Trondheim (N).
Title of the thesis: Equilibrium models for multi-fuel energy markets with uncertainties and market power.

– (Mar. 2024) Candidate: **Daniele Giovanni Gioia**, Politecnico di Torino (I).
Title of the thesis: Dynamic optimization under uncertainty - Applications in engineering, manufacturing and retail.

Public Engagement

She organized the following public engagement activities and delivered interviews:

- (Mar. 2023) Organizer of the seminar series on: *Intelligenza artificiale e computer che apprendono*, as Public Engagement activity of the Department DIGIP of the University of Bergamo (I).
- (Apr. 2023) Organizer of the seminar series on: *Matematica & Arte, Letteratura e Musica*, as Public Engagement activity of the Department DIGIP of the University of Bergamo (I).
- (Mar. 24, 2023) Interview on *Artificial Intelligence and Machine Learning*, local TV *Bergamo TV*, min. 56' 22" `https://www.bergamotv.it/bgtv/bergamo-in-diretta/bergamo-in-diretta-331/SI_SPBEBTV2622144/`.
- (May 3, 2023) Interview on Artificial Intelligence on the local TV *Videostar*, `https://www.videostartv.eu/`.

- (Mar. – Jun. 2024) Organizer of the seminar series on: *L'Intelligenza artificiale, opportunità e rischi*, as Public Engagement activity of the Department DIGIP of the University of Bergamo in collaboration with *Ateneo di Scienze Lettere e Arti* of Bergamo (I).

Software Skills

- Optimization: GAMS, AMPL;
- Programming: C, Fortran, Python;
- Other: Matlab, Mathematica, PcGive, LaTeX, HTML.

Languages

Italian (mother tongue), English (fluent).

Membership in Societies

- AIRO (Italian Association of Operational Research);
- UMI (Italian Mathematical Society);
- MOS (Mathematical Optimization Society);
- INFORMS (The Institute for Operations Research and the Management Sciences);
- EWGSO (EURO Working Group on Stochastic Optimization), role: chair;
- SPS (Stochastic Programming Society);
- FIMA (Italian Federation of Applied Mathematics);
- GNCS (Gruppo Nazionale per il Calcolo Scientifico);
- Ateneo di Scienze Lettere ed Arti of Bergamo;
- Mathesis Bergamo APS, role: advisor.

Bergamo, March 24^{th}, 2024 Francesca Maggioni