

Daniele Manerba, Ph.D. – Academic CV



Born in Brescia (Italy), 1983.
Italian.
Male.

Affiliation: Dept. of Information Engineering (DII) – Università degli Studi di Brescia, Italy

Position: Assistant Professor (RTD B) in Operational Research - MAT/09, since 30/11/2019

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Academic web profiles:

- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=55220200300>
- GoogleScholar: https://scholar.google.it/citations?user=pXW63_QAAAAJ
- ResearchGate: https://www.researchgate.net/profile/Daniele_Manerba
- Publons: <http://publons.com/a/1404480/>

Abilitazione Scientifica Nazionale:

- Seconda fascia. Settore concorsuale 01/A6, SSD MAT/09 – Ricerca Operativa. From 14/08/2019.

Previous affiliations:

- 2017 - 2019: Dept. of Control and Computer Engineering, Politecnico di Torino, Italy.
- 2010 - 2016: Dept. of Information Engineering, University of Brescia, Italy.

Research interests:

- Integer Programming / Combinatorial Optimization / Polyhedral combinatorics
- Branch-and-cut, Branch-and-price, Meta-heuristics, Matheuristics
- Optimization under uncertainty / Stochastic Programming / Deterministic Approximations
- Distribution Logistics / Vehicle Routing Problems
- Procurement Logistics / Supplier selection / Discount policies
- Energy Management / Virtual Power Plant optimization
- Home Healthcare Logistics / Nurse routing and scheduling
- Network Optimization / Inter-modal and Synchro-modal Logistics / Location-Transshipment
- Facility Location / Covering

Publications

Articles in international journals

1. M. Roohnavazfar, D. Manerba, L. Fotio Tiotsop, S. H. R. Pasandideh, R. Tadei. Stochastic single machine scheduling problem as a multi-stage dynamic random decision process. *Computational Management Science (to appear)*. DOI: 10.1007/s10287-020-00386-1
2. R. Giusti, D. Manerba, R. Tadei. Multi-period Transshipment Location-Allocation Problem with Flow Synchronization under Stochastic Handling Operations. *Networks (to appear)*. DOI: 10.1002/net.22007
3. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei. Comparative analysis of models and performance indicators for optimal service facility location. *Transportation Research Part E: Logistics and Transportation Review* 145, 102174. 2021. DOI: 10.1016/j.tre.2020.102174
4. Y. Li, S. Carabelli, E. Fadda, D. Manerba, R. Tadei, O. Terzo. Machine Learning and Optimization for Production Rescheduling in Industry 4.0. *International Journal of Advanced Manufacturing Technology* 110, 2445–2463. 2020. DOI: 10.1007/s00170-020-05850-5
5. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei. The stochastic multi-path Traveling Salesman Problem with dependent random travel costs. *Transportation Science* 54 (5), 1372-1387. 2020. DOI: 10.1287/trsc.2020.0996
6. R. Tadei, G. Perboli, D. Manerba. The multi-stage dynamic stochastic decision process with unknown distribution of the random utilities. *Optimization Letters* 14 (5), 1207–1218. 2020. DOI: 10.1007/s11590-019-01412-1
7. M. Roohnavazfar, D. Manerba, J. C. De Martin, R. Tadei. Optimal paths in multi-stage stochastic decision networks. *Operations Research Perspectives* 6: number 100124. 2019. DOI: 10.1016/j.orp.2019.100124
8. R. Giusti, D. Manerba, G. Bruno, R. Tadei. Synchromodal logistics: An overview of critical success factors, enabling technologies, and open research issues. *Transportation Research Part E: Logistics and Transportation Review* 129, 92-110. 2019. DOI: 10.1016/j.tre.2019.07.009
9. R. Giusti, C. Iorfida, Y. Li, D. Manerba, S. Musso, G. Perboli, R. Tadei, S. Yuan. Sustainable and de-stressed international supply-chains through the SYNCHRO-NET approach. *Sustainability* 11 (4):1083. 2019. DOI: 10.3390/su11041083
10. M. M. Baldi, D. Manerba, G. Perboli, R. Tadei. A generalized bin packing problem for parcel delivery in last-mile logistics. *European Journal of Operational Research* 274 (3), 990-999. 2019. DOI: 10.1016/j.ejor.2018.10.056
11. D. Manerba, G. Perboli. New Solution Approaches for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty. *Computers and Operations Research* 101, 29-42. 2019. DOI: 10.1016/j.cor.2018.08.010
12. M. Pasetti, S. Rinaldi, D. Manerba. A Virtual Power Plant Architecture for the Demand-Side Management of Smart Prosumers. *Applied Sciences* 8 (3): 432. 2018. DOI: 10.3390/app8030432
13. D. Manerba, R. Mansini, G. Perboli. The Capacitated Supplier Selection Problem with Total Quantity Discount policy and Activation Costs under Uncertainty. *International Journal of Production Economics* 198, 119-132. 2018. DOI: 10.1016/j.ijpe.2018.01.035
14. P. Beraldi, M. E. Bruni, D. Manerba, R. Mansini. A Stochastic Programming approach for the Traveling Purchaser Problem. *IMA Journal of Management Mathematics* 28 (1), 41-63. 2017. DOI: 10.1093/imaman/dpv022
15. D. Manerba, R. Mansini, J. Riera-Ledesma. The Traveling Purchaser Problem and its Variants. *European Journal of Operational Research* 259 (1), 1-18. 2017. DOI: 10.1016/j.ejor.2016.12.017
16. M. Gendreau, D. Manerba, R. Mansini. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *European Journal of Operational Research* 248 (1), 59-71. 2016. DOI: 10.1016/j.ejor.2015.06.073
17. D. Manerba, R. Mansini. A branch-and-cut algorithm for the Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints. *Networks* 65 (2), 139-154. 2015. DOI: 10.1002/net.21588
18. D. Manerba, R. Mansini. An Effective Matheuristic for the Capacitated Total Quantity Discount Problem. *Computers and Operations Research* 41 (1), 1-11. 2014. DOI:10.1016/j.cor.2013.07.019
19. D. Manerba, R. Mansini. An Exact Algorithm for the Capacitated Total Quantity Discount Problem. *European Journal of Operational Research* 222 (2), 287-300. 2012. DOI:10.1016/j.ejor.2012.04.028

Contributes or chapters in volumes

20. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei (2021). Evaluation of optimal charging station location for electric vehicles: an Italian case-study. In: S. Fidanova (Ed.), *Recent Advances in Computational Optimization*. Springer Studies in Computational Intelligence 920, pp. 71-87. DOI: 10.1007/978-3-030-58884-7_4
21. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei (2020). Optimization problems under uncertainty in smart cities. In: Augusto J.C. (ed), *Handbook of Smart Cities*. Springer Cham. DOI: 10.1007/978-3-030-15145-4_47-1
22. R. Tadei, G. Perboli, D. Manerba (2018). A Recent Approach to Derive the Multinomial Logit Model for Choice Probability. In: Daniele P., Scrimali L. (eds) *New Trends in Emerging Complex Real Life Problems*. AIRO Springer Series, vol 1. Springer, Cham. DOI: 10.1007/978-3-030-00473-6_50

Conference papers/proceedings (of selective peer-reviewed conferences)

23. T. G. Crainic, R. Giusti, D. Manerba, R. Tadei. The Synchronized Location-Transshipment Problem. *Transportation Research Procedia* 52C, pp. 43-50, 2021. Proceedings of 23rd EURO Working Group on Transportation (EWGT 2020). Paphos (Cyprus). September 16–18, 2020. DOI: 10.1016/j.trpro.2021.01.007
24. Y. Li, E. Fadda, D. Manerba, R. Tadei, O. Terzo. Reinforcement Learning Algorithms for Online Single-Machine Scheduling. In *Proceedings of the 2020 Federated Conference on Computer Science and Information Systems*, M. Ganzha, L. Maciaszek, M. Paprzycki (eds). ACSIS, Vol. 21, pages 277–283 (2020). DOI: 10.15439/2020F100
25. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei. KPIs for Optimal Location of charging stations for Electric Vehicles: the Biella case-study. In *Proceedings of the 2019 Federated Conference on Computer Science and Information Systems*, M. Ganzha, L. Maciaszek, M. Paprzycki (eds). ACSIS, Vol. 18, pages 123-126. 2019. DOI: 10.15439/2019F171
26. A. Gobbi, D. Manerba, R. Mansini, R. Zanotti. A Kernel Search for a patient satisfaction-oriented Nurse Routing Problem with Time Windows. *IFAC-PapersOnLine* 52 (13), 1669-1674. 2019. - *MIM2019, 9th IFAC Conference on Manufacturing, Modelling, Management and Control*. August 28-30, 2019. Berlin (Germany). DOI: 10.1016/j.ifacol.2019.11.440
27. D. Manerba, R. Mansini, R. Zanotti. Attended Home Delivery: reducing last-mile environmental impact by changing customer habits. *IFAC-PapersOnLine* 51 (5), 55-60. 2018. - *IAMES2018, 1st IFAC workshop on Integrated Assessment Modelling and Environmental Systems*. May 10-11, 2018. Brescia (Italy). DOI: 10.1016/j.ifacol.2018.06.199
28. D. Holfeld, C. Iorfida, M. Koya, D. Manerba, J. Stephens, R. Tadei, F. Werner. SYNCHRO-NET: a powerful and innovative synchro-modal supply chain eco-NET. *Proceedings of 7th Transport Research Arena TRA2018*. April 16-19, 2018. Vienna (Austria). DOI: 10.5281/zenodo.1421656
29. R. Giusti, D. Manerba, G. Perboli, R. Tadei, S. Yuan. A New Open-source System for Strategic Freight Logistics Planning: the SYNCHRO-NET Optimization Tools. *Transportation Research Procedia* 30C, pp. 245-254, 2018. EURO mini conference on “Advances in Freight Transportation and Logistics”, 7-9 March 2018. Padova (Italy). DOI: 10.1016/j.trpro.2018.09.027
30. D. Manerba, R. Mansini, The Nurse Routing Problem with Workload Constraints and Incompatible Services. *IFAC-PapersOnLine* 49 (12), 1192-1197. 2016. - *MIM2016, 8th IFAC Conference on Manufacturing, Modelling, Management and Control*. June 28-30, 2016. Troyes (France). DOI: 10.1016/j.ifacol.2016.07.670

Abstracts in journal

31. D. Manerba. Optimization models and algorithms for problems in Procurement Logistics. *4OR - A Quarterly Journal of Operations Research* 13 (3), pp. 339-340. 2015. DOI: 10.1007/s10288-015-0287-6

Doctoral thesis

32. D. Manerba. Optimization models and algorithms for problems in Procurement Logistics. *Ph.D. thesis in Computer and Control Engineering, University of Brescia*. 2015

Technical reports

33. T. Crainic, R. Giusti, D. Manerba, R. Tadei. The Synchronized Location-Transshipment Problem. *Technical report CIRRELT-2020-28*. CIRRELT, Montréal. Jul 2020
34. M. Roohnavazfar, D. Manerba, S. H. R. Pasandideh, R. Tadei. Single-machine job-scheduling problem as a multi-stage dynamic stochastic decision process. *Technical report DAUIN-ORO-2020-01*, Dept. of Control and Computer Engineering, Politecnico di Torino. Jan 2020
35. R. Giusti, D. Manerba, R. Tadei. Multi-period Transshipment Location-Allocation Problem with stochastic synchronized operations. *Technical report DAUIN-ORO-2019-07*, Dept. of Control and Computer Engineering, Politecnico di Torino. Oct 2019
36. Y. Li, S. Carabelli, E. Fadda, D. Manerba, R. Tadei, O. Terzo. Integration of Machine Learning and Optimization Techniques for Flexible Job-Shop Rescheduling in Industry 4.0. *Technical report DAUIN-ORO-2019-06*, Dept. of Control and Computer Engineering, Politecnico di Torino. Oct 2019
37. R. Kain, D. Manerba, R. Tadei, S. Carabelli. Database Index Selection with Configurations through a Generalized Capacitated Facility Location Problem. *Technical report DAUIN-ORO-2019-05*, Dept. of Control and Computer Engineering, Politecnico di Torino. Aug 2019
38. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei. Optimal Location of Charging Stations for Electric Vehicles. *Technical report DAUIN-ORO-2019-04*, Dept. of Control and Computer Engineering, Politecnico di Torino. Jul 2019
39. M. Roohnavazfar, D. Manerba, J. C. De Martin, R. Tadei. Optimal paths in multi-stage stochastic decision networks. *Technical report DAUIN-ORO-2019-03*, Dept. of Control and Computer Engineering, Politecnico di Torino. Apr 2019
40. R. Giusti, D. Manerba, G. Bruno, R. Tadei. Synchromodal logistics: An overview of critical success factors, enabling technologies, and open research issues. *Technical report DAUIN-ORO-2019-02*, Dept. of Control and Computer Engineering, Politecnico di Torino. Apr 2019
41. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei. The stochastic multi-path Traveling Salesman Problem with dependent random travel costs. *Technical report DAUIN-ORO-2019-01*, Dept. of Control and Computer Engineering, Politecnico di Torino. Jan 2019
42. D. Manerba, G. Perboli. New Solution Approaches for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty. *Technical report CIRRELT-2017-68*. CIRRELT, Montréal. Nov 2017
43. D. Manerba, R. Mansini, G. Perboli. A Stochastic Programming Approach for the Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs. *Technical report CIRRELT-2017-13*. CIRRELT, Montréal. Feb 2017
44. D. Manerba, R. Mansini, J. Riera-Ledesma. The Traveling Purchaser Problem and its Variants. *Technical report OR@DII-2016-01*. OR@DII - Dept. of Information Engineering, University of Brescia, 2016
45. D. Manerba, R. Mansini, M. Gendreau. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *Technical report CIRRELT-2014-52*. CIRRELT, Montréal. Oct 2014
46. D. Manerba, R. Mansini. A branch-and-cut algorithm for the Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. *Technical report OR@DII-2013-02*. OR@DII - Dept. of Information Engineering, University of Brescia, 2013
47. D. Manerba, R. Mansini. An effective hybrid heuristic for the Capacitated Total Quantity Discount Problem. *Technical report RT_2011-03-67*, Dept. of Information Engineering, University of Brescia, 2011
48. D. Manerba, R. Mansini. An exact algorithm for the Capacitated Total Quantity Discount Problem. *Technical report RT_2011-02-66*, Dept. of Information Engineering, University of Brescia, 2011

Under revision:

49. R. Kain, D. Manerba, R. Tadei. Index Selection Problem via a Generalized Capacitated Facility Location Approach [JOURNAL ARTICLE, II round review]
50. A. Gobbi, D. Manerba, R. Mansini. Adaptive Large Neighborhood Search for the Nurse Routing Problem with Incompatible Services. [JOURNAL ARTICLE, I round review]
51. E. Fadda, D. Manerba, R. Tadei K -covering facility location models for service redundancy. [JOURNAL ARTICLE, I round review]

52. Y. Li, E. Fadda, D. Manerba, M. Roohnavazfar, R. Tadei, O. Terzo. Online Single-Machine Scheduling via Reinforcement Learning. [CONTRIBUTE IN VOLUME – I round review]

Conferences / Dissemination

Speaker at national and international selective conferences

1. T. G. Crainic, R. Giusti, D. Manerba, R. Tadei. The Synchronized Location-Transshipment Problem. *23rd EURO Working Group on Transportation (EWGT2020)*. Sep 16–18, 2020. Paphos, Cyprus
2. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei. Extensive analysis of models and indicators for the optimal location of electric vehicle charging stations. *ODS2019*, Sep 4-7, 2019. Genova, Italy
3. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei. A new deterministic approximation for the multi-path Traveling Salesman Problem with stochastic and dependent travel costs. *ICSP2019*, Jul 29-Aug 02, 2019. Trondheim, Norway
4. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei. Stochastic multi-path Traveling Salesman Problem with dependent random travel costs: a new deterministic approximation. *EURO2019*, Jun 23-26, 2019. Dublin, Ireland
5. E. Fadda, L. Fotio Tiotsop, D. Manerba, R. Tadei. A deterministic approximation for the stochastic multi-path Traveling Salesman Problem with dependent random travel costs. *AIRO YOUNG Workshop 2019*, Mar 28-29, 2019. Rome, Italy
6. D. Manerba, R. Tadei, G. Perboli. A deterministic approximation for the long-term Capacitated Supplier Selection problem with Total Quantity Discount and Activation Costs under Uncertainty. *ODS2018*, Sep 10-13, 2018. Taormina, Italy
7. D. Manerba, G. Perboli. The Capacitated Supplier Selection Problem with Total Quantity Discount and Activation Costs under Demand Uncertainty: exact and approximate approaches. *EURO2018*. Jul 8-11, 2018. Valencia, Spain
8. M. Gendreau, D. Manerba, R. Mansini. The Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A branch-and-price approach. *EURO2018*. Jul 8-11, 2018. Valencia, Spain **[Invited talk]**
9. D. Manerba, G. Perboli. A Progressive Hedging approach for a Supplier Selection Problem under Total Quantity Discount and Demand Uncertainty. *Odysseus2018 - 7th International Workshop on Freight Transportation and Logistics*, Jun 3-8, 2018. Cagliari, Italy
10. D. Manerba, R. Mansini, R. Zanotti. Attended Home Delivery: reducing last-mile environmental impact by changing customer habits. *IAMES2018, 1st IFAC workshop on Integrated Assessment Modelling and Environmental Systems*. May 10-11, 2018. Brescia, Italy
11. D. Holfeld, C. Iorfida, M. Koya, D. Manerba, J. Stephens, R. Tadei, F. Werner. SYNCHRO-NET: a powerful and innovative synchro-modal supply chain eco-NET. *TRA2018*, Transport Research Arena. Apr 16-19, 2018. Vienna, Austria
12. R. Giusti, D. Manerba, G. Perboli, R. Tadei, S. Yuan. A New Open-source System for Strategic Freight Logistics Planning: the SYNCHRO-NET Optimization Tools. EURO mini conference on “Advances in Freight Transportation and Logistics”, 7-9 Mar 2018. Padova, Italy
13. D. Manerba, R. Mansini, G. Perboli. Supplier Selection under Uncertainty in the presence of Total Quantity Discounts. *ODS2017*. Sep 4-7, 2017. Sorrento, Italy
14. D. Manerba, R. Mansini, The Nurse Routing Problem with Workload Constraints and Incompatible Services. *MIM 2016, 8th IFAC Conference on Manufacturing, Modelling, Management and Control*. Jun 28-30, 2016. Troyes, France
15. D. Manerba, R. Mansini. A Nurse Routing Problem with operational side-constraints. *VeRoLog2016*. Jun 6-8, 2016. Nantes, France
16. M. Gendreau, D. Manerba, R. Mansini. A branch-and-price algorithm for the Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands. *AIRO 2014 – Decision Models for Smarter Cities*. Sep 2-5, 2014. Como, Italy
17. M. Gendreau, D. Manerba, R. Mansini. A column generation approach for the Multi-Vehicle Travelling Purchaser Problem with Pairwise Incompatibility Constraints. *IFORS*. Jul 13-18, 2014. Barcellona, Spain.
18. D. Manerba, R. Mansini. Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. *VeRoLog2013*. Jul 7-10, 2013. Southampton, England
19. D. Manerba, R. Mansini, M. Picchi. Vehicle Purchaser Problem with Exclusionary Side Constraints. *AIRO 2012 - Graph Algorithms and Optimization*. Sep 4-7, 2012. Vietri sul Mare (SA), Italy

20. D. Manerba, R. Mansini. The Capacitated Traveling Purchaser Problem with Total Quantity Discount. *Odysseus2012 - 5th International Workshop on Freight Transportation and Logistics*, May 21-25, 2012. Mykonos, Greece
21. D. Manerba, R. Mansini. An exact algorithm for the Capacitated Total Quantity Discount Problem. *AIRO 2011, OR in Transportation and Logistics*. Sep 6-9, 2011. Brescia, Italy

Co-author of works presented at national and international selective conferences (speaker underlined)

1. T. G. Crainic, R. Giusti, D. Manerba, R. Tadei. A Deterministic Approach to the Synchronized Location-Transshipment Problem with Multi-Commodity Flows. *EURO2021*, Jul 11-14, 2021. Athens (Greece) [to come]
2. D. Manerba, R. Mansini, R. Zanotti, S. U. Ngueveu. A Piecewise-Linear Approximation approach for the Pollution Routing Problem. *EURO2021*, Jul 11-14, 2021. Athens (Greece) [to come]
3. V. Bonomi, D. Manerba, R. Mansini. An integrated Multi-Period Combinatorial Auction and Nurse Routing Problem for home health-care services. *EURO2021*, Jul 11-14, 2021. Athens (Greece) [to come]
4. D. Manerba, R. Mansini, R. Zanotti, S. U. Ngueveu. Pollution Routing Problem: A Piecewise-Linear Approximation approach. *ROADEF2021*, Apr 26-30, 2021. Mulhouse (France) [to come]
5. E. Fadda, L. Fotio Tiotso, D. Manerba, R. Tadei. Extreme Value Theory-based Deterministic Approximation of Stochastic Programs embedding Discrete Choice Problems. *AIRO YOUNG Workshop*, Feb 8-10, 2021. Naples, Italy
6. T. G. Crainic, R. Giusti, D. Manerba, R. Tadei. The Transshipment-Location Problem with Synchronized Operations. *AIRO YOUNG Workshop*, Feb 8-10, 2021. Naples, Italy
7. E. Fadda, Y. Li, D. Manerba, R. Tadei, O. Terzo. Online Single-Machine Scheduling via Reinforcement Learning Techniques. *ODS2020*, 19 Nov 2020. Virtual venue
8. D. Manerba, R. Mansini, R. Zanotti, S. U. Ngueveu. Pollution Routing Problem: A Piecewise-Linear Approximation approach. *ODS2020*, 19 Nov 2020. Virtual venue
9. Y. Li, E. Fadda, D. Manerba, R. Tadei, O. Terzo. Reinforcement Learning Algorithms for Online Single-Machine Scheduling. In *WCO'20 - 13th International Workshop on Computational Optimization*. Sep 6-9, 2020. Sofia, Bulgaria
10. R. Giusti, D. Manerba, R. Tadei. Progressive Hedging Heuristics for the Transshipment Location-Allocation Problem in Synchromodal Logistics. *AIRO YOUNG Workshop*, Feb 5-7, 2020. Bolzano, Italy
11. Y. Li, K. Goga, E. Fadda, D. Manerba, R. Tadei. Machine Learning application in Optimization: Job-Shop Scheduling in Industry 4.0. *ODS2019*, 4-7 Sep 2019. Genova, Italy
12. D. Manerba, G. Perboli, R. Tadei. A Deterministic Approximation for the Long-Term Capacitated Supplier Selection problem with Total Quantity Discount and Activation Costs under Uncertainty. *ODS2019*, Sep 4-7, 2019. Genova, Italy
13. E. Fadda, D. Manerba, G. Cabodi, P. Camurati, R. Tadei. KPIs for Optimal Location of charging stations for Electric Vehicles: the Biella case-study. *WCO2019 - 12th International Workshop on Computational Optimization*, Sep 1-4, 2019. Leipzig, Germany
14. A. Gobbi, D. Manerba, R. Mansini, R. Zanotti. Patient satisfaction-oriented Nurse Routing problem with Time Windows. *MIM2019, 9th IFAC Conference on Manufacturing, Modelling, Management and Control*. Aug 28-30, 2019. Berlin, Germany
15. R. Tadei, G. Perboli, D. Manerba. A new deterministic approximation for the maximum utility of a multi-stage dynamic stochastic decision process. *ICSP2019*, Jul 29-Aug 02, 2019. Trondheim, Norway
16. R. Giusti, D. Manerba, Tadei. A Stochastic Multi-period Transshipment Selection Problem with Synchronized Handling Operations. *EURO2019*, Jun 23-26, 2019. Dublin, Ireland
17. R. Giusti, D. Manerba, Tadei. A Stochastic Multi-period Transshipment Selection Problem with Synchronized Handling Operations. *1st EURO Young Workshop*, May 2-3, 2019. Seville, Spain
18. R. Giusti, D. Manerba, R. Tadei. Synchromodal Freight Transportation and Logistics: from state-of-the-art to applications. *AIRO YOUNG Workshop 2019*, Mar 28-29, 2019. Rome, Italy
19. A. Gobbi, D. Manerba, R. Mansini. Optimizing the Nurse Routing Problem with incompatible services. *AIRO YOUNG Workshop 2019*, Mar 28-29, 2019. Rome, Italy
20. R. Tadei, G. Perboli, D. Manerba. A recent approach to derive the Multinomial Logit model for choice probability. *ODS2018*, Sep 10-13, 2018. Taormina, Italy

21. D. Holfeld, A. Simroth, Y. Li, D. Manerba, R. Tadei. Risk Analysis for synchro-modal freight transportation: the SYNCHRO-NET approach. *Odysseus2018 - 7th International Workshop on Freight Transportation and Logistics*, Jun 3-8, 2018. Cagliari, Italy
22. M. Gendreau, D. Manerba, R. Mansini. Introducing incompatibility restrictions among products in a multi-vehicle procurement and routing context. *NOW 2015 - Network Optimization Workshop*. May 18-21, 2015. La Rochelle, France
23. P. Beraldi, M. E. Bruni, D. Manerba, R. Mansini. The Traveling Purchaser Problem under Uncertainty. *AIRO 2012 - Graph Algorithms and Optimization*. Sep 4-7, 2012. Vietri sul Mare (SA), Italy

Posters presented

- D. Manerba, R. Mansini. The Multi-Vehicle Traveling Purchaser Problem with Exclusionary Side Constraints. Presented during “*VRP2013: European Spring School on Vehicle Routing*” poster session. May 2013. Angers, France

Organization Committee of conferences:

- AIRO 2011 - Operational Research in Transportation and Logistics. Sep 6-9, 2011. Brescia, Italy [Local committee/Staff]

Chair/Organizer of conference sessions:

- *Healthcare Logistics*. VEROLOG, Jun 6-8, 2016. Nantes (France)
- *Variants of the Vehicle Routing Problem*. IFORS, Jul 13-18, 2014. Barcellona (Spain)
- *Stochastic Programming*. ODYSSEUS, Jun 3-8, 2018. Cagliari (Italy)

Seminars

- From 09/12/2020 to 16/12/2020 – “Decision making under uncertainty” (7.5 hours). Politecnico di Torino. Chair: Prof. Roberto Tadei
- 20/05/2020 – “Evaluation of optimal charging station location for electric vehicles: an Italian case-study”. Politecnico di Torino. Chair: Dr. Edoardo Fadda
- 02/12/2016 – “Door-to-door garbage collection with Arc Routing: the case study of Brescia”. During the "Arc Routing Problems: optimization models, algorithms, and applications" mini-course (Prof. Renata Mansini - Nov 4, Dec 1-2, 2016). Dept. of Computer Science - University of Verona (Italy). Chair: Prof. Romeo Rizzi
- 04/10/2016 – “Energy Management System per la gestione dell'edificio”, in "Progetto S.C.U.O.LA. Smart Campus as Urban Open Lab, Obiettivi e risultati dei dimostratori di Brescia". University of Brescia, Italy. Chair: Prof. Alessandra Flammioni
- 22/01/2015 – “Optimization Models and Algorithms for Problems in Procurement Logistics”. University of Brescia, Italy. Ph.D. thesis dissertation
- April 2013 – “Polyhedral Analysis and Integer Linear Programming” (8 hours). Within the course “Algoritmi di ottimizzazione”, Prof. R. Mansini. University of Brescia, Italy
- March 2012 - “Cplex: optimal solution of MILP problems” (4 hours). Within the course “Ricerca Operativa”, Prof. R. Mansini. University of Brescia, Italy

Chair of seminars:

- P. Chiadò, A. Badiali: City Logistics solutions in TNT. *Politecnico di Torino*, May 30, 2018. Turin (Italy)
- E. Fadda: Optimizing crowd-based business models. *Politecnico di Torino*, May 23, 2018. Turin (Italy)
- E. Fadda: Optimizing production flows in FCA. *Politecnico di Torino*, May 8, 2019. Turin (Italy)
- M. Rosano: Multidisciplinary approach for sustainable urban transportation. *Politecnico di Torino*, May 22, 2019. Turin (Italy)

Professional experiences, memberships, and collaborations

Current position:

- Senior Assistant Professor in Operational Research (MAT/09) at Dept. of Information Engineering, Università degli Studi di Brescia, Italy. [Ricercatore a Tempo Determinato di cui all'art. 24, comma 3, lettera b), della Legge n. 240/2010]
- External teacher [Docente esterno/collaboratore didattico] at Dept. of Control and Computer Engineering, Politecnico di Torino, Italy. 30/11/2019 – 31/12/2020

Previous contracts and positions:

- 09/01/2017 – 29/11/2019. Assistant Professor in Operational Research (MAT/09) at Dept. of Control and Computer Engineering, Politecnico di Torino, Italy. [Ricercatore a Tempo Determinato di cui all'art. 24, comma 3, lettera a), della Legge n. 240/2010]
- 01/01/2016 – 31/12/2016. Post-doc research fellow (MAT/09 - Operational Research, ING-INF/07 - Electric and electronic measures, ING-INF/01 - Electronics) at Department of Information Engineering - University of Brescia. Subject: “Development and validation of optimization models and algorithms for Energy Management”. [Assegno di ricerca, di cui all'articolo 22 della Legge n. 240/2010]
- 01/10/2015 – 31/12/2015. Post-doc research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Subject: “Analysis and optimization of the colo-rectal cancer therapy process”. [Borsa di ricerca post-dottorato]
- 01/10/2014 – 30/09/2015. Post-doc research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Subject: “Optimization models and algorithms for management, consumption, and storage of energy”. [Assegno di ricerca, di cui all'articolo 22 della Legge n. 240/2010]
- 01/09/2010 – 31/08/2011. Research fellow (MAT/09, Operational Research) at Department of Information Engineering - University of Brescia. Project: “Mathematical models and algorithms for procurement problems with purchasing costs, travelling costs and discount policies”. [Assegno di ricerca, di cui all'articolo 51, comma 6, della legge 27 dicembre 1997, n.449]

Laboratory responsibility:

- [01/2017–10/2019] Responsible for the research laboratory LAB8, Dept. of Control and Computer Engineering, Politecnico di Torino. The lab hosts the ORO (Operational Research and Optimization) group and the SRG (Speech Recognition Group).

Member of research groups:

- [2010-now] OR@DII – Operations Research group at Dept. of Information Engineering, University of Brescia (<http://or-dii.unibs.it/>). Director: Prof. Renata Mansini
- [2017-2021] OROgroup – Operations Research group at Dept. of Control and Computer Engineering, Politecnico di Torino (<http://www.orgroup.polito.it>). Director: Prof. Roberto Tadei
- [2017-2019] ICELAB - ICT for City Logistics and Enterprises Lab (<http://icelab.polito.it>). Directors: Prof. Guido Perboli and Edoardo Calia

Memberships of research communities:

- AIRO: Italian Association of Operational Research
- EU/ME: EURO working group on Metaheuristics
- VeRoLog: EURO working group on Vehicle Routing and Logistics Optimization
- EWGSO: EURO working group on Stochastic Optimization
- UMI: Unione Matematica Italiana
- SEMINARIO MATEMATICO di Brescia

International collaborations and experiences

- 15 Oct. 2013 – 20 Dic. 2013: Visiting Researcher (internship) at CIRRELT – Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation. Montreal (Canada). Supervisor Prof. Michel Gendreau. Project: “Matheuristics and exact algorithms for problems in Distribution Logistics”.

- Stable international collaborations with:
 - o Michel Gendreau (Polytechnique du Montréal and CIRRELT, Canada)
 - o Jorge Riera-Ledesma (Universidad de la Laguna, Spain)
 - o Said Hanafi (University of Valenciennes and Hainaut-Cambresis, France)
 - o Denise Holfeld, Axel Simroth (Fraunhofer Institute IVI of Dresden, Germany)
 - o Jean-François Côté (Université Laval, Canada)
 - o David Pisinger (Technical University of Denmark, Denmark)
 - o Sandra U. Ngueveu (Université de Toulouse - LAAS-CNRS, France)
 - o Seyed Hamid Reza Pasandideh (Kharazmi University of Tehran, Iran)
 - o Theodor Gabriel Crainic (Université du Québec à Montréal and CIRRELT, Canada)
 - o An Caris (University of Hasselt, Belgium)

Editorial and refereeing activities

Editorial responsibilities:

- Editorial Board's member for the international *Journal of Smart Cities and Society* (IOS Press, Nederland).
- Guest Editor of the Special Issue "Sustainability in Synchro-Modal Logistics and Transportation" for the journal "Sustainability" (ISSN 2071-1050, MDPI), with Prof. A. Caris

Reviewer for international scientific journals (more than 160 revisions):

4OR-A Quarterly Journal of Operation Research, Algorithms, American Journal of Mathematical and Management Sciences, Annals of Operations Research, Array, Asia-Pacific Journal of Operational Research, Assembly Automation, Central European Journal of Operational Research, Computational Management Science, Computers & Industrial Engineering, Computers & Operations Research, Computers in Industry, Energies, EURO Journal on Transportation and Logistics, European Journal of Operational Research, IEEE Transactions on Intelligent Transportation Systems, International Journal of Logistics Systems and Management, International Journal of Management Science and Engineering Management, International Journal of Production Economics, International Journal of Production Research, International Journal of Sustainable Transportation, International Transactions in Operational Research, Journal of Cleaner Production, Journal of Experimental & Theoretical Artificial Intelligence, Journal of the Operational Research Society, Journal of Scheduling, Logistics, Networks, Omega, Operational Research: An International Journal, Operations Research, Optimization Letters, Scientia Iranica – International Journal of Science and Technology, Soft Computing, Sustainability, Transportation Letters, Transportation Research Part B: Methodological, Transportation Research Part E: Logistics and Transportation Review, Transportation Science.

Verifiable at: <https://publons.com/researcher/1404480/daniele-manerba/peer-review/>

Reviewer for international scientific conferences:

IEEE International Conference on Automation Science and Engineering (CASE2017), IEEE Annual Computer Software and Applications Conference (COMPSAC2017), Transport Research Arena (TRA2018), International Conference on Physics, Mathematics and Statistics (ICPMS2020).

Verifiable at: <https://publons.com/researcher/1404480/daniele-manerba/peer-review/>

Reviewer for the "MATHSCINET- Mathematical Reviews" database (American Mathematical Society). Verifiable at:

<https://mathscinet.ams.org/mathscinet/search/publications.html?pg1=RVRI&s1=987783&pg3=authreviews>

Prizes, awards, invitations

- “Editors’ Award for Excellence in Reviewing 2019” by the European Journal of Operational Research (EJOR)’s Editorial Board, in recognition of an outstanding contribution to the quality of the Journal in 2018.
- “Elsevier Outstanding Reviewer” for:
 - Computers & Operations Research (2017)
 - European Journal of Operational Research (2018)
 - Transportation Research Part E: Logistics and Transportation Review (2018)
- Invited by the European Journal of Operational Research (EJOR)’s Editorial Board to present the already published work “Gendreau, Manerba, Mansini. 2016. The Multi-Vehicle Traveling Purchaser Problem with Pairwise Incompatibility Constraints and Unitary Demands: A Branch-and-Price approach. *EJOR* 248 (1), pp. 59-71” during the invited session “Meet the Editors of EJOR” at the 29th EURO conference in Valencia (July 8-11, 2018).
- “Starting Grant” of 15,000€ for the Assistant Professor position from Dept. of Control and Computer Engineering, Politecnico di Torino. January 2017.
- EU/ME sponsored grant of 1000€ to attend the “VRP2013: European Spring School on Vehicle Routing”. Coordinators: Prof. Jorge E. Mendoza and Christelle Guéret. May 20-24, 2013. Angers, France. The selection, among more than 20 participants, was based on the CV (<http://www.ima.uco.fr/vrp2013/>)

Research projects

Scientific responsibility:

- **SYNCHRO-NET: Synchro-modal supply chain eco-NET.** European Union's Horizon2020 research and innovation programme, grant 636354 (20 international partners, total budget 7.5 million €). Leader: DHL Spain. Duration: 42 months (Apr 2015 - Oct 2018). Scientific coordinator of two working packages of the project:
 - WP5: Supply Chain De-Stressing Simulator & eco-NET (from 02/2017 to 04/2018)
 - WP6: SYNCHRO-NET Business Cases & Demonstrators (from 02/2017 to 10/2018)

Participation in national and international projects:

- **P&R4.0: Plastic and Rubber 4.0.** Piattaforma Tecnologica "Fabbrica Intelligente", POR FESR 2014-2020 - Azione I.1b.2.2. Regione Piemonte, Contract No. 319-31
- **DISLOMAN: Dynamic Integrated Shopfloor operation Management for Industry 4.0.** Fondi Miur POR FESR 2014/2020, "Fabbrica Intelligente". Leader: Politecnico di Torino. Oct 2016 – Mar 2019
- **SYNCHRO-NET: Synchro-modal supply chain eco-NET.** European Union's Horizon2020 research and innovation programme, grant 636354 (20 international partners, total budget 7.5 million €). Leader: DHL Spain. Duration: 42 months (Apr 2015 - Oct 2018)
- **AIACCIO: Advanced Integrated Assistance for Colorectal Cancer - Interventive Options.** Main activities: Operating rooms optimal scheduling and re-engineering of the care process. Leader: Spedali Civili di Brescia. Apr 2015 – Mar 2017
- **Virtual eGateway: Gateway domestico per la gestione interattiva dei flussi di energia.** S.IN. - Social INnovation (00665). Leader: Università degli Studi di Brescia. Mar 2015 – Feb 2019
- **BRESCIA SMART LIVING.** SCN_00416. Bando MIUR 2012 (DD591/2012) - Smart Cities and Communities. Leader: A2A. Mar 2015 – Feb 2018
- **SCUOLA: Smart Campus as Urban Open Labs.** Regione Lombardia, "Smart Cities and Communities", grant no. 40545387. Leader: A2A. Mar 2014 – Nov 2015
- **EUROVERDE: Portale integrato per la tracciabilità di filiera e la trasparenza dei prodotti di IV gamma nel comparto ortofrutta.** Regione Lombardia, "FEARS PSR Programma di Sviluppo Rurale 2007-2013, Misura 124". Jul 2012 – Jul 2014

Participation in contracts and scientific collaborations:

- **"Accordo di collaborazione finalizzata al supporto all'utilizzo delle banche dati aziendali relative all'attività ambulatoriale, al fine di poter consentire analisi utili alla pianificazione/organizzazione dell'attività ambulatoriale".** ASST-Spedali Civili di Brescia, DII (University of Brescia). Jan 2021 – Mar 2021
- **"Studio di fattibilità per la realizzazione di una rete per la mobilità elettrica nella provincia di Biella – Fase II".** Ener.bit S.r.l., DAUIN (Politecnico di Torino). Feb 2019 – May 2019

Teaching activities

Main teaching and responsibility [Docente e Titolare del corso]:

- Course: “**Ricerca Operativa**”, D. Manerba. Corso di Laurea in Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. From 2019/2020 to present [60 hours, Italian]

Teaching [Docente e Membro della commissione d’esame]:

- Course: “**Ottimizzazione per il Problem Solving**”, Prof. R. Tadei. Corso Di Laurea In Ingegneria Informatica/Meccanica/Gestionale/altri e Corso Di Laurea In Matematica Per L’Ingegneria (6 cfu); Politecnico di Torino. 2016/2017 [21 hours, Italian], 2018/2019 [18 hours, Italian], 2019/2020 [15 hours, Italian]
- Course: “**Ricerca Operativa**”, Prof. G. Perboli. Corso Di Laurea In Ingegneria Della Produzione Industriale (6 cfu). Politecnico di Torino. 2016/2017 [18 hours, Italian]
- Course: “**Optimization Methods and Algorithms AA-LZ**”, Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. 2017/2018 [24 hours, English], 2018/2019 [19.5 hours, English]
- Course: “**Optimization Methods and Algorithms MA-ZZ**”, Prof. R. Tadei. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Matematica (6 cfu). Politecnico di Torino. 2017/2018 [22.5 hours, English], 2018/2019 [19.5 hours, English]
- Course: “**Operational Research: theory and applications**”, integrated course with Prof. E. Leonardi. Corso di Laurea Magistrale In ICT For Smart Societies (8 cfu). Politecnico di Torino. 2017/2018 [40 hours, English], 2018/2019 [40 hours, English]
- Course: “**Decision Making and Optimization**”, Prof. R. Tadei. Corso di Laurea Magistrale In Data Science and Engineering (8 cfu). Politecnico di Torino. 2019/2020 [19.5 hours, English]

Teaching support [Contratto di supporto alla didattica]:

- Course: “**Ricerca Operativa**”, Prof.ssa R. Mansini. Corso Di Laurea In Ingegneria Informatica e Corso Di Laurea In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. 2011/2012 [15 hours, Italian], 2013/2014 [25 hours, Italian], 2014/2015 [40 hours, Italian], 2015/2016 [50 hours, Italian]
- Course: “**Algoritmi di Ottimizzazione**”, Prof.ssa R. Mansini. Corso Di Laurea Magistrale In Ingegneria Informatica e Corso Di Laurea Magistrale In Ingegneria Gestionale (6 cfu). Università degli Studi di Brescia. 2012/2013 [17 hours, Italian]

Member of:

- CCSA di Ingegneria Industriale – Università degli Studi di Brescia (From 2019/2020 to present)
- Collegio dei Docenti di Ingegneria Elettronica, delle Telecomunicazioni e Fisica (ETF) - Politecnico di Torino (From 2017/2018 to 2019/2020)
- Collegio dei Docenti di Ingegneria Matematica - Politecnico di Torino (From 2017/2018 to 2019/2020)
- Collegio dei Docenti di Ingegneria Informatica, del Cinema e Meccatronica (ICM) - Politecnico di Torino (From 2017/2018 to 2019/2020)

Ph.D. courses:

- Course: **Modeling and problem solving with stochastic programming** [18 hours, English, 4 cfu]. Politecnico di Torino, Turin. From 23rd November to 4th December 2020.
- Course: **Modeling and problem solving with stochastic programming** [15 hours, English, 3 cfu]. Politecnico di Torino, Turin. From March 30th to April 03rd, 2020.
- Lecturer/Instructor for the “**Optimization in City Logistics**” course (responsible: Prof. Renata Mansini) during the "Modelling week" Ph.D. school. September 4-11, 2016. Dept. of Computer Science - University of Verona (Italy). Coordinator: Prof. Giandomenico Orlandi. Organizing committee: R. Rizzi, R. Mansini, L. Di Persio, M. Caliori, M. Bonollo, A. Marigonda, G. Orlandi. Official website: <http://profs.scienze.univr.it/caliari/phdmw/>

Ph.D. student’s supervision:

- Riccardo Giusti – “Optimization in Synchro-modal networks”. – Ph.D. student in Control and Computer Engineering. Politecnico di Torino, Italy. Supervisor: R. Tadei, Co-supervisor: D. Manerba. XXXIV cycle.

Thesis supervisor:

- Facchin Pietro: “Timetabling di esami con vincoli di incompatibilità: il caso di studio GESLT-UNIBS”. L.T. in Ing. Gestionale, Università degli Studi di Brescia (Italy). 2021.
- Setti Edoardo: “Ottimizzazione della distribuzione porta a porta: il caso del comune di Palazzolo sull'Oglio e della frazione di San Pancrazio”. L.T. in Ing. Gestionale, Università degli Studi di Brescia (Italy). 2020.
- Piceni Matteo: “Traveling Purchaser Problem: Analisi e confronto di formulazioni compatte”. L.T. in Ing. Gestionale, Università degli Studi di Brescia (Italy). 2020.

Thesis co-supervisor:

- Ilaria Gioda: Seating Arrangement Optimization in COVID-19 Era: a quantum computing approach. L.M. in Ing. Informatica, Politecnico di Torino (Italy). Supervisor: R. Tadei. Co-supervisor: D. Manerba. 2021
- Elia Migliore: “Modalità di analisi e ottimizzazione nella pianificazione dei fabbisogni di materiali”. L.M. in Ing. Informatica. Politecnico di Torino, Italy. Supervisor: R. Tadei, Co-supervisor: D. Manerba, S. Andreozzi. 2020
- Alessandro Magri: “Bubble diversification: un approccio razionale alla diversificazione nei problemi di PLI”. L.M. in Ing. Informatica, University of Brescia, Italy. Supervisor: R. Mansini. Co-supervisors: D. Manerba, R. Zanotti. 2019.
- Vittorio Capocasale: “Blockchain applications to Supply Chain: an application to last-mile delivery”. L.T. in Ing. Informatica. Politecnico di Torino, Italy. Supervisor: G. Perboli, Co-supervisor: D. Manerba. 2018
- Tiantian Zhao: “Optimization models for supplier selection problems with different discount policies”. Master thesis in Industrial Engineering, University of Brescia, Italy. Supervisor: R. Mansini, Co-supervisor: D. Manerba. 2017.
- Alessandro Gobbi: “Ottimizzazione del percorso di cura per pazienti con neoplasia al colon-retto: processi decisionali, modelli e algoritmi”. L.M. in Ing. Informatica, University of Brescia, Italy. Supervisor: R. Mansini. Co-supervisor: D. Manerba. 2016.
- Alice Raffaele: “Time-constrained Vehicle Routing Problem”. L.M. in Ing. Informatica, University of Brescia, Italy. Supervisor: R. Mansini, J.-F. Côté. Co-supervisor: D. Manerba. 2016.
- Riccardo Orizio: “Vehicle Routing Problems with Time Windows Incentives”. L.M. in Ing. Informatica, University of Brescia, Italy. Supervisors: R. Mansini, J.-F. Côté. Co-supervisor: D. Manerba. 2016.

Academic supervisor of curricular stages:

- Niccolò Giraud, L.T. in Ing. Informatica. Mar-Jun 2019. Politecnico di Torino.
- Samuel Garetto, L.T. in Ing. Informatica. Mar 2019-Sept 2019. Politecnico di Torino.
- Simone Cavanna, L.T. in Ing. Informatica. Jun-Sept 2018. Politecnico di Torino.
- Matteo Coscia, L.T. in Ing. Informatica. Mar-Jun 2018. Politecnico di Torino.
- Iolanda Tassoni, L.M. in Ing della Produzione. Mar-Jun 2017. Politecnico di Torino.
- Patrizio Sibona, L.T. in Ing. Informatica. Mar-Jul 2017. Politecnico di Torino.
- Francesco De Nigris, L.T. in Ing. Informatica. Mar-Jul 2017. Politecnico di Torino.
- Valerio Vallesio, L.M. in Ing. Matematica. Mar-Jun 2017. Politecnico di Torino.

Curriculum studiorum

Academic degrees:

- [Mar 16, 2015] Ph.D. Degree in "Computer and Control Engineering" [Dottorato di Ricerca in Ingegneria Informatica e Automatica, XXVII ciclo] under the supervision of Prof. Renata Mansini. Department of Information Engineering, University of Brescia. Thesis: "Optimization Models and Algorithms for Problems in Procurement Logistics".
- [Mar 24, 2010] Master Degree in Computer Engineering [Laurea Specialistica in Ingegneria Informatica (35/S)], University of Brescia. Thesis: "The Capacitated Travelling Purchaser Problem with Volume Discount: models and algorithms". Supervisor: Prof. Renata Mansini.
- [Nov 2007] Bachelor Degree in Information Engineering [Laurea Triennale In Ingegneria dell'Informazione], University of Brescia. Thesis: "A web application for maintaining and programming a DNS server". Supervisors: Prof. Marina Zanella, Prof. Paolo Prandini.

Ph.D. schools/courses attended

- "VRP2013: European Spring School on Vehicle Routing", 25.5 hours course with Professors Daniele Vigo, Christian Prins, Dominique Feillet, Victor Pillac and Michel Gendreau. Université Catholique de l'Ouest (Angers, France - 2013)
- "Optimization on graphs", 20 hours course with Prof. Giovanni Righini. University of Milano (Milano, Italy - 2013)
- "Stochastic programming", 25 hours course with Prof. Lewis Ntaimo and Prof. Guglielmo Lulli. University of Milano-Bicocca (Milano, Italy - 2012)

Other courses attended:

- "Formazione e innovazione della didattica". University of Brescia (Brescia, Italy – 2020/2021). Prof. Domenico Simeone, Dr. Emanuele Serrelli.
- "Learning and teaching in Higher Education", 40 hours course with Prof. Ettore Felisatti, Prof. Carla Salvaterra, Prof. Joellen Coryell, Prof. Maria Cinque, Dr. Anna Serbati and Dr. Beatrice Zucchi. Politecnico di Torino (Turin, Italy - 2017)
- "Discrete Optimization", on-line course with Prof. Pascal Van Hentenryck. University of Melbourne (www.coursera.org - 2013)
- "Linear and Discrete Optimization", on-line course with Prof. Fritz Eisenbrand. École Polytechnique Fédérale de Lausanne (www.coursera.org - 2013)
- "Governo dei sistemi informativi", 60 hours course with Prof. G. Guida. Università degli Studi di Brescia, Italy (2012/2013)
- "Programmazione Web", 60 hours course with Prof. D. Bianchini. Università degli Studi di Brescia, Italy (2012/2013)

Technical, communication and management skills

Competencies:

- Development, implementation, and validation of Mathematical Programming models and algorithms (exact, heuristic, metaheuristic, matheuristic) for optimization problems
- Writing and revising of scientific papers, project deliverables, and project proposal
- Development and implementation of machine learning techniques
- Development and implementation of relational databases, websites, and web applications

Programming languages:

- [Advanced] C/C++, Java, PHP, HTML, CSS, MySQL
- JavaScript, ASP, Python, Turbo Pascal, VBA

Optimization software and packages:

- [Advanced] IBM ILOG Cplex (and its Concert Technology), MPL, PO.R.T.A.
- GUROBI, GAMS, CONCORDE, ExcelSolver

Operating systems:

- [Advanced] Windows, GNU Linux
- Android

Others:

- [Advanced] Latex Editing, Microsoft Office suite / Open Office (Excel, Word, PowerPoint, Access)
- Shell/Bash scripting, MATLAB/Simulink, Photo and video editing (Photoshop, Pinnacle Studio, Premiere, Fireworks), QGIS

Languages:

- Italian [MOTHER TONGUE]
- English:

	Europass level (self-assessment):
Comprehension (listening):	C1
Comprehension (reading):	C2
Speaking (interaction):	C1
Speaking (oral production)	C1
Writing:	C1

Social skills:

- Excellent interaction with other professionals (researcher, practitioners) in the OR field
- Good interaction with customers, industrial partners, or other professionals not expert in the OR field

Organization skills:

- Excellent experience in organizing time and resources to deal with deadlines and priorities
- Excellent experience in collaborating for the development of small, medium, and large projects
- Good experience in working independently and without supervision
- Good experience in coordinating other people as well as supervising stages, Bachelor, Master, and Ph.D. students.

