Ivana LJUBIC

Professor

ljubic@essec.edu

Department: Information Systems, Data Analytics
and Operations
Campus de Cergy

DIPLOMAS

DIPLOMAS

2004	Ph.D. in Computer Science (TU Wien Austria)
2013	Habilitation in Operations Research (Université de Vienne Austria)
2000	Master of Science degree (MSc), Department for Optimization and Numerical Analysis, Faculty of Mathematics (University of Belgrade Serbia)

CAREER

OTHER ACADEMIC APPOINTMENTS

2017 - 2021-08-31	Academic Director of the ESSEC & Mannheim EMBA program (ESSEC Business School France)
2016 - 2018-01-01	Member of the Scientific Committee (ESSEC Business School France)
2013 - 2015-01-01	Member of the doctoral advisory board at ISOR (Université de Vienne Austria)
2015 - 2015-02-01	Visiting Professor (Universidad Adolfo Ibáñez Chile)
2014 - 2014-09-01	Visiting Professor (Université Paris Dauphine-PSL France)
2011 - 2012-03-01	Visiting Professor (University of Maryland United States of America)
2024 - Now	Coordinator of PhD concentration in Operations Management and Operations Research (ESSEC Business School France)

FULL-TIME ACADEMIC APPOINTMENTS

2011 - 2015-03-31 Ass./Assoc. Professor. ISOR, Faculty of Business, Economics and Statistics, University of Vienna (Université de Vienne Austria)

2007 - 2010-11-01 Post-Doc Researcher & Lecturer, ISOR (Université de Vienne Austria)

2016 - Now Professor (ESSEC Business School France)

2015 - 2016-08-31 Associate Professor (ESSEC Business School France)

OTHER APPOINTMENTS

2000 - 2004-10-01 Research and Teaching Assistant (PhD candidate) (TU Wien Austria)

2018 - 2019-01-01 Member of the "Task Force: future directions, strategy, evaluation" (ESSEC Business School France)

2012 - 2013-01-01 Visiting Researcher (APART Fellowship), COGA (Technische Universität Berlin Germany)

2012 - 2012-09-01 Visiting Researcher (APART Fellowship), Faculty of CS (TU Dortmund Universität Germany)

PUBLICATIONS

JOURNAL ARTICLES

LEITNER, M., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2018). A Dual Ascent-Based Branch-and-Bound Framework for the Prize-Collecting Steiner Tree and Related Problems. *INFORMS Journal on Computing*, 30(2), pp. 402-420.

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2017). A New General-Purpose Algorithm for Mixed-Integer Bilevel Linear Programs. *Operations Research*, 65(6), pp. 1615-1637.

BLEY, A., LJUBIC, I. et MAURER, O. (2017). A Node-Based ILP Formulation for the Node-Weighted Dominating Steiner Problem. *Networks*, 69(1), pp. 33-51.

SINNL, M. et LJUBIC, I. (2016). A Node-Based Layered Graph Approach for the Steiner Tree Problem with Revenues, Budget and Hop-Constraints. *Mathematical Programming Computation*, 8(4), pp. 461–490.

LJUBIC, I. et RAIDL, G.R. (2003). A Memetic Algorithm for Minimum-Cost Vertex-Biconnectivity Augmentation of Graphs. *Journal of Heuristics*, 9(5), pp. 401-428.

LJUBIC, I., CHIMANI, M., KANDYBA, M. et MUTZEL, P. (2009). Obtaining optimal k-cardinality trees fast. *ACM Journal of Experimental Algorithmics (JEA)*, 14(5), pp. 5.1-5.23.

FURINI, F., LJUBIC, I. et SINNL, M. (2017). An Effective Dynamic Programming Algorithm for the Minimum-Cost Maximal Knapsack Packing Problem. *European Journal of Operational Research*, 262(2), pp. 438-448.

FICHETTI, M., LJUBIC, I. et SINNL, M. (2016). Benders Decomposition without Separability: A Computational Study for Capacitated Facility Location Problems. *European Journal of Operational Research*, 253(3), pp. 557-569.

LJUBIC, I. et MORENO, E. (2018). Outer Approximation and Submodular Cuts for Maximum Capture Facility Location Problems with Random Utilities. *European Journal of Operational Research*, 266(1), pp. 46-56.

LEITNER, M., LJUBIC, I., SALAZAR-GONZALEZ, J.J. et SINNL, M. (2017). An Algorithmic Framework for the Exact Solution of Tree-Star Problems. *European Journal of Operational Research*, 1(261), pp. 54-66.

CORDEAU, J.F., FURINI, F. et LJUBIC, I. (2019). Benders Decomposition for Very Large Scale Partial Set Covering and Maximal Covering Location Problems. *European Journal of Operational Research*, 275(3), pp. 882-896.

LEITNER, M., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2018). Decomposition Methods for the Two-Stage Stochastic Steiner Tree Problem. *Computational Optimization and Applications*, 69(3), pp. 713-752.

LEITNER, M., LJUBIC, I., RIEDLER, M. et RUTHMAIR, M. (2020). Exact Approaches for Network Design Problem with Relays. *Omega*, 91.

LEITNER, M., LJUBIC, I., SINNL, M. et WERNER, A. (2016). ILP Heuristics and a New Exact Method for Bi-Objective 0/1 ILPs: Application to FTTx-Network Design. *Computers & Operations Research*, 72, pp. 128-146.

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2018). On the Use of Intersection Cuts for Bilevel Optimization. *Mathematical Programming*, 172(1-2), pp. 77-103.

FISCHETTI, M., LJUBIC, I. et SINNL, M. (2017). Redesigning Benders Decomposition for Large-Scale Facility Location. *Management Science*, 63(7), pp. 2146-2162.

ÁLVAREZ-MIRANDA, E., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2017). Solving Minimum-Cost Shared Arborescence Problems. *European Journal of Operational Research*, 258(3), pp. 887-901.

LJUBIC, I., MUTZEL, P. et ZEY, B. (2017). Stochastic Survivable Network Design Problems: Theory and Practice. *European Journal of Operational Research*, 256(2), pp. 333-348.

ÁLVAREZ-MIRANDA, E., FERNÁNDEZ, E. et LJUBIC, I. (2015). The Recoverable Robust Facility Location Problem. *Transportation Research Part B: Methodological*, 79(1), pp. 93-120.

FISCHETTI, M., LEITNER, M., LJUBIC, I., LUIPERSBECK, M., MONACI, M. et RESCH, M. (2017). Thinning out Steiner Trees: A Node-Based Model for Uniform Edge Costs. *Mathematical Programming Computation*, 9(2), pp. 203-229.

ALFANDARI, L., DAVIDOVIC, T., FURINI, F., LJUBIC, I., MARAS, V. et MARTIN, S. (2019). Tighter MIP models for Barge Container Ship Routing. *Omega*, 82, pp. 38-54.

LJUBIC, I., TOŠIC, D., FILIPOVIC, V. et KRATICA, J. (2001). Solving the simple plant location problem by genetic algorithms. *RAIRO - Operations Research*, 35(1), pp. 127-142.

RAIDL, G.R. et LJUBIC, I. (2002). Evolutionary Local Search for the Edge-Biconnectibity Augmentation Problem. *Information Processing Letters*, 82(1), pp. 39-45.

LJUBIC, I., WEISKIRCHER, R., PFERSCHY, U., KLAU, G., MUTZEL, P. et FISCHETTI, M. (2006). An Algorithmic Framework for the Exact Solution of the Prize-Collecting Steiner Tree Problem. *Mathematical Programming*, 105(2), pp. 427-449.

LJUBIC, I. (2010). A branch-and-cut-and-price algorithm for vertex-biconnectivity augmentation. *Networks*, 56(3), pp. 169-182.

CHIMANI, M., KANDYBA, M., LJUBIC, I. et MUTZEL, P. (2010). Orientation-based models for {0,1,2}-survivable network design: theory and practice. *Mathematical Programming*, 124(1), pp. 413-440.

LJUBIC, I. et CHEN, S. (2010). The regenerator location problem. *Networks*, 55(3), pp. 205-220.

GOLLOWITZER, S. et LJUBIC, I. (2011). MIP models for connected facility location: A theoretical and computational study. *Computers & Operations Research*, 38(2), pp. 435-449.

LJUBIC, I., PUTZ, P. et SALAZAR-GONZALEZ, J.J. (2012). Exact approaches to the single-source network loading problem. *Networks*, 59(1), pp. 89-106.

LJUBIC, I. et GOLLOWITZER, S. (2012). Layered Graph Approaches to the Hop Constrained Connected Facility Location Problem. *INFORMS Journal on Computing*, 25(2), pp. 256-270.

FROMMLET, F., LJUBIC, I., BJÖRK ARNARDÓTTIR, H. et BOGDAN, M. (2012). QTL Mapping Using a Memetic Algorithm with Modifications of BIC as Fitness Function. *Statistical Applications in Genetics and Molecular Biology*, 11(4).

GOLLOWITZER, S., GENDRON, B. et LJUBIC, I. (2013). A cutting plane algorithm for the Capacitated Connected Facility Location Problem. *Computational Optimization and Applications*,

55(3), pp. 647-674.

ALVAREZ-MIRANDA, E., LJUBIC, I. et TOTH, P. (2013). A note on the Bertsimas & Sim algorithm for robust combinatorial optimization problems. *4OR: A Quarterly Journal of Operations Research*, 11(4), pp. 349-360.

GOLLOWITZER, S., GOUVEIA, L. et LJUBIC, I. (2013). Enhanced Formulations and Branch-and-Cut for the Two Level Network Design Problem with Transition Facilities. *European Journal of Operational Research*, 225(2), pp. 211-222.

LJUBIC, I., PUTZ, P. et SALAZAR-GONZALEZ, J.J. (2014). A MIP-based Heuristic Approach to solve a Prize-Collecting Local Access Network Design Problem. *European Journal of Operational Research*, 235(3), pp. 727-739.

GOUVEIA, L., LEITNER, M. et LJUBIC, I. (2015). The Two-Level Diameter Constrained Spanning Tree Problem. *Mathematical Programming*, 150(1), pp. 49-78.

SAN SEGUNDO, P., CONIGLIO, S., FURINI, F. et LJUBIC, I. (2019). A new branch-and-bound algorithm for the maximum edge-weighted clique problem. *European Journal of Operational Research*, 278(1), pp. 76-90.

LEITNER, M., LJUBIC, I., SALAZAR-GONZALEZ, J.J. et SINNL, M. (2018). The Connected Facility Location Polytope. *Discrete Applied Mathematics*, 234, pp. 151-167.

LJUBIC, I., FURINI, F., MALAGUTI, E. et PARONUZZI, P. (2020). On Integer and Bilevel Formulations for the k-Vertex Cut Problem. *Mathematical Programming Computation*, 12, pp. 133-164.

EHRGOTT, M., LJUBIC, I. et PARRAGH, S.N. (2017). Feature cluster: Recent advances in exact methods for multi-objective optimisation. *European Journal of Operational Research*, 260(3), pp. 805-806.

ÁLVAREZ-MIRANDA, E., GOYCOOLEA, M., LJUBIC, I. et SINNL, M. (2021). The Generalized Reserve Set Covering Problem with Connectivity and Buffer Requirements. *European Journal of Operational Research*, 289(3), pp. 1013-1029.

BRANDSTÄTTER, G., LEITNER, M. et LJUBIC, I. (2020). Location of Charging Stations in Electric Car Sharing Systems. *Transportation Science*, 54(5), pp. 1408-1438.

GOUVEIA, L., LEITNER, M. et LJUBIC, I. (2020). A polyhedral study of the diameter constrained minimum spanning tree problem. *Discrete Applied Mathematics*, 285, pp. 364-379.

LJUBIC, I. (2021). Solving Steiner trees: Recent advances, challenges, and perspectives. *Networks*, 77(2), pp. 177-204.

ALFANDARI, L., HASSANZADEH, A. et LJUBIC, I. (2021). An Exact Method for Assortment Optimization under the Nested Logit Model. *European Journal of Operational Research*, 291(3), pp.

830-845.

FURINI, F., LJUBIC, I., MALAGUTI, E. et PARONUZZI, P. (2022). Casting light on the hidden bilevel combinatorial structure of the capacitated vertex separator problem. *Operations Research*, 70(4), pp. 2399–2420.

FURINI, F., LJUBIC, I., SAN SEGUNDO, P. et ZHAO, Y. (2021). A branch-and-cut algorithm for the Edge Interdiction Clique Problem. *European Journal of Operational Research*, 294(1), pp. 54-69.

LJUBIC, I., MOUACI, A., PERROT, N. et GOURDIN, E. (2021). Benders decomposition for a node-capacitated Virtual Network Function placement and routing problem. *Computers & Operations Research*, 130(105227).

ALFANDARI, L., LJUBIC, I. et DE MELO DA SILVA, M. (2022). A tailored Benders decomposition approach for last-mile delivery with autonomous robots. *European Journal of Operational Research*, 299(2), pp. 510-525.

KLEINERT, T., LABBÉ, M., LJUBIC, I. et SCHMIDT, M. (2021). A Survey on Mixed-Integer Programming Techniques in Bilevel Optimization. *European Journal on Computational Optimization*, 9, pp. 100007.

FERNÁNDEZ, E., LEITNER, M., LJUBIC, I. et RUTHMAIR, M. (2022). Arc Routing with Electric Vehicles: Dynamic Charging and Speed-Dependent Energy Consumption. *Transportation Science*, 56(5), pp. 1111-1408.

CONIGLIO, S., FURINI, F. et LJUBIC, I. (2022). Submodular maximization of concave utility functions composed with a set-union operator with applications to maximal covering location problems. *Mathematical Programming*, 196(1-2), pp. 9-56.

ALVAREZ-MIRANDA, E., LJUBIC, I. et TOTH, P. (2013). Exact Approaches for Solving Robust Prize-Collecting Steiner Tree Problems, European Journal of Operational Research. *European Journal of Operational Research*, 229(3), pp. 599-612.

BLEY, A., LJUBIC, I. et MAURER, O. (2013). Lagrangian decompositions for the two-level FTTx network design problem. *Computational Optimization and Applications*, 1(3), pp. 221-252.

GOUVEIA, L., LEITNER, M. et LJUBIC, I. (2014). Hop constrained Steiner trees with multiple root nodes. *European Journal of Operational Research*, 236(1), pp. 100-112.

LEITNER, M., LJUBIC, I. et SINNL, M. (2014). The bi-objective prize-collecting Steiner tree problem. *INFORMS Journal on Computing*, 27(1), pp. 118-134.

ÁLVAREZ-MIRANDA, E., LJUBIC, I. et RAGHAVAN, S. (2014). The Recoverable Robust Two-Level Network Design Problem. *INFORMS Journal on Computing*, 27(1), pp. 1-19.

CHEN, S., LJUBIC, I. et RAGHAVAN, S. (2015). The Generalized Regenerator Location Problem. *INFORMS Journal on Computing*, 27(2), pp. 204-220.

FURINI, F., LJUBIC, I., MARTIN, S. et SAN SEGUNDO, P. (2019). The Maximum Clique Interdiction Problem. *European Journal of Operational Research*, 277(1), pp. 112-127.

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNI, M. (2019). Interdiction Games and Monotonicity, with Application to Knapsack Problems. *INFORMS Journal on Computing*, 31(2), pp. 390-410.

ARULSELVAN, A., BLEY, A. et LJUBIC, I. (2019). The Incremental Connected Facility Location Problem. *Computers & Operations Research*, 112.

KESHVARI FARD, M., LJUBIC, I. et PAPIER, F. (2022). Budgeting in International Humanitarian Organizations. *Manufacturing & Service Operations Management*, 24(3), pp. 1562-1577.

ARCHETTI, C. et LJUBIC, I. (2022). Comparison of formulations for the Inventory Routing Problem. *European Journal of Operational Research*, 303(3), pp. 997-1008.

LEITNER, M., LJUBIC, I., MONACI, M., SINNL, M. et TANINMIS, K. (2023). An Exact Method for Binary Fortification Games. *European Journal of Operational Research*, 307(3), pp. 1026-1039.

DELLE DONNE, D., ARCHETTI, C., ALFANDARI, L. et LJUBIC, I. (2023). Freight-on-Transit for urban last-mile deliveries: A strategic planning approach. *Transportation Research Part B: Methodological*, 169, pp. 53-81.

BECK, Y., LJUBIC, I. et SCHMIDT, M. (2023). A survey on bilevel optimization under uncertainty. *European Journal of Operational Research*, 311(2), pp. 401-426.

MOUACI, A., GOURDIN, , LJUBIC, I. et PERROT, N. (2023). Two extended formulations for the virtual network function placement and routing problem. *Networks*, 82(1), pp. 32-51.

CERULLI, M., SERRA, D., SORGENTE, C., ARCHETTI, C. et LJUBIC, I. (2023). Mathematical programming formulations for the collapsed k-core problem. *European Journal of Operational Research*, 311(1), pp. 56-72.

RAMIREZ-PICO, C., LJUBIC, I. et MORENO, E. (2023). Benders Adaptive-Cuts Method for Two-Stage Stochastic Programs. *Transportation Science*, 57(5), pp. 1252-1275.

GAAR, E., LEE, J., LJUBIC, I., SINNL, M. et TANINMIS, K. (2024). On SOCP-based disjunctive cuts for solving a class of integer bilevel nonlinear programs. *Mathematical Programming*, 206, pp. 91-124.

BECK, Y., LJUBIC, I. et SCHMIDT, M. (2023). Exact methods for discrete ?-robust interdiction problems with an application to the bilevel knapsack problem. *Mathematical Programming Computation*, 15(4), pp. 733-782.

KUZBAKOV, Y. et LJUBIC, I. (2024). New formulations for two location problems with interconnected facilities. *European Journal of Operational Research*, 31(1), pp. 51-65.

PETROPOULOS, F., LAPORTE, G., AKTAS, E., ALUMUR, S.A., ARCHETTI, C., AYHAN, H. ...

ZHAO, X. (2024). Operational Research: methods and applications. *Journal of the Operational Research Society*, 75(3), pp. 423-617.

LJUBIC, I., POZO, M.A., PUERTO, J. et TORREJON, A. (2024). Benders decomposition for the discrete ordered median problem. *European Journal of Operational Research*, 317(3), pp. 858-874.

LEITNER, M., LJUBIC, I., RIEDLER, M. et RUTHMAIR, M. (2019). Exact Approaches for Network Design Problems with Relays. *INFORMS Journal on Computing*, 31(1), pp. 171-192.

GHADDAR, B., LJUBIC, I. et QIU, Y. (2024). Three network design problems for community energy storage. *Networks*, 84(4), pp. 420-445.

LI, Y., ARCHETTI, C. et LJUBIC, I. (2024). Reinforcement Learning Approaches for the Orienteering Problem with Stochastic and Dynamic Release Dates. *Transportation Science*, 58(5), pp. 1143-1165.

CERULLI, M., ARCHETTI, C., FERNÁNDEZ, E. et LJUBIC, I. (2024). A Bilevel Approach for Compensation and Routing Decisions in Last-Mile Delivery. *Transportation Science*, 58(5), pp. 1076-1100.

KAHR, M., LEITNER, M. et LJUBIC, I. (2024). The Impact of Passive Social Media Viewers in Influence Maximization. *INFORMS Journal on Computing*, 36(6), pp. 1359-1756, C2.

HAERING, T., LEGAULT, R., TORRES, F., LJUBIC, I. et BIERLAIRE, M. (2024). Exact algorithms for continuous pricing with advanced discrete choice demand models. *OR Spectrum*, In press.

CLAUTIAUX, F. et LJUBIC, I. (2025). Last fifty years of integer linear programming: A focus on recent practical advances. *European Journal of Operational Research*, 324(3), pp. 707-731.

LI, Y., ARCHETTI, C. et LJUBIC, I. (2025). Emerging optimization problems for distribution in same-day delivery. *Computers & Operations Research*, 182, pp. 107105.

CASELLI, G., IORI, M. et LJUBIC, I. (2025). Bilevel optimization with sustainability perspective: A survey on applications. *European Journal of Operational Research*, In press.

CALAMITA, A., LJUBIC, I. et PALAGI, L. (2025). Benders decomposition for congested partial set covering location with uncertain demand. *European Journal of Operational Research*, In press.

FERNÁNDEZ, E., LJUBIC, I. et ZEREGA, N. (2025). The multi-commodity flow problem with outsourcing decisions. *Transportation Research Part B: Methodological*, 201, pp. 103333.

BECK, Y., LJUBIC, I. et SCHMIDT, M. (2026). Heuristic Methods for ?-Robust Mixed-Integer Linear Bilevel Problems. *INFORMS Journal on Computing*, 38(1), pp. 189-206.

WORKING PAPERS

ALFANDARI, L., LJUBIC, I. et DE MELO DA SILVA, M. (2019). *Onlast-mile Delivery with Autonomous Robots*. ESSEC Business School.

BOOK CHAPTERS

LJUBIC, I., ALVAREZ-MIRANDA, E. et MUTZEL, P. (2013). The Maximum Weight Connected Subgraph Problem. Dans: *Facets of Combinatorial Optimization*. 1st ed. Springer, pp. 245-270.

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2016). Intersection Cuts for Bilevel Optimization. Dans: *Integer Programming and Combinatorial Optimization*. 1st ed. Berlin: Springer Computer Science, pp. 77-88.

LJUBIC, I. (2007). A Hybrid VNS for Connected Facility Location. Dans: Thomas Bartz-Beielstein, María José Blesa Aguilera, Christian Blum, Boris Naujoks, Andrea Roli, Günter Rudolph, Michael Sampels eds. *Hybrid Metaheuristics*. 1 ed. Springer Berlin Heidelberg, pp. 157-169.

KLAU, G.W., LJUBIC, I., MOSER, A., MUTZEL, P., NEUNER, P., PFERSCHY, U. et WEISKIRCHER, R. (2004). Combining a Memetic Algorithm with Integer Programming to Solve the Prize-Collecting Steiner Tree Problem. Dans: Kalyanmoy Deb (ed.). *Genetic and Evolutionary Computation – GECCO 2004*. 1 ed. Springer Berlin Heidelberg, pp. 1304-1315.

KRATICA, J., LJUBIC, I. et TOŠI?, D. (2003). A Genetic Algorithm for the Index Selection Problem. Dans: Stefano Cagnoni, Colin G. Johnson, Juan J. Romero Cardalda, Elena Marchiori, David W. Corne, Jean-Arcady Meyer, Jens Gottlieb, Martin Middendorf, Agnès Guillot, Günther R. Raidl, Emma Hart eds. *Applications of Evolutionary Computing*. 1 ed. Springer Berlin Heidelberg, pp. 280-290.

KERSTING, S., RAIDL, G.R. et LJUBIC, I. (2002). A Memetic Algorithm for Vertex-Biconnectivity Augmentation. Dans: Stefano Cagnoni, Jens Gottlieb, Emma Hart, Martin Middendorf, Günther R. Raidl eds. *Applications of Evolutionary Computing*. 1 ed. Springer Berlin Heidelberg, pp. 102-111.

LJUBIC, I., RAIDL, G.R. et KRATICA, J. (2000). A Hybrid GA for the Edge-Biconnectivity Augmentation Problem. Dans: Marc Schoenauer, Kalyanmoy Deb, Günther Rudolph, Xin Yao, Evelyne Lutton, Juan Julian Merelo, Hans-Paul Schwefel eds. *Parallel Problem Solving from Nature PPSN VI*. 1 ed. Springer Berlin Heidelberg, pp. 641-650.

FURINI, F., LJUBIC, I. et SINNL, M. (2015). ILP and CP Formulations for the Lazy Bureaucrat Problem. Dans: Laurent Michel (ed.). *Integration of AI and OR Techniques in Constraint Programming (CPAIOR 2015)*. 1st ed. Cham, New York: Springer, pp. 255-270.

GAAR, E., LEE, J., LJUBIC, I., SINNL, M. et TANINMI?, K. (2022). SOCP-Based Disjunctive Cuts for a Class of Integer Nonlinear Bilevel Programs. Dans: Karen Aardal, Laura Sanità eds. *Integer Programming and Combinatorial Optimization*. 1st ed. Cham: Springer, pp. 262-276.

GOUVEIA, L., LJUBIC, I. et LEITNER, M. (2024). Common-Flow Formulations for the Diameter Constrained Spanning and Steiner Tree Problems. Dans: Teodor Gabriel Crainic, Michel Gendreau,

Antonio Frangioni eds. *Combinatorial Optimization and Applications.* 1 ed. Cham: Springer Nature Switzerland, pp. 37-58.

LJUBIC, I. (2023). Connected Facility Location Problems. Dans: Pardalos P.M., Prokopyev O.A. eds. *Encyclopedia of Optimization.* 3rd ed. Cham: Springer, pp. 1-11.

BOOK EDITOR

LJUBIC, I., DOERNER, K., TRAGLER, G. et PFLUG, G. [Eds] (2016). *Operations Research Proceedings 2015.* Springer.

LJUBIC, I., BARAHONA, F., DEY, S.S. et MAHJOUB, A.R. [Eds] (2022). *Combinatorial Optimization* . New York: Springer.

LJUBIC, I. [Eds] (2022). *Combinatorial Optimization.* Springer International Publishing.

PRESENTATIONS AT AN ACADEMIC OR PROFESSIONAL CONFERENCE

FURINI, F., LJUBIC, I., MALAGUTI, E. et PARONUZZI, P. (2019). A New Bilevel Approach for the K-vertex Cut Problem. Dans: 2019 INFORMS Annual Meeting.

ALFANDARI, L., HASSANZADEH, A. et LJUBIC, I. (2020). Une méthode exacte pour le problème d'assortiment optimal avec modèle de choix nested-logit. Dans: 21st ROADEF 2020.

LJUBIC, I. (2015). Exact Approaches to the Network Design Problem with Relays. Dans: Laboratoire d'informatique de Paris Nord. Paris.

LJUBIC, I. (2015). The diameter constrained minimum spanning tree problem: Polyhedral study, 2. Dans: Encontro do Centro de Investigação Operacional, University of Lisbon. Lisbon.

LJUBIC, I. (2014). The Recoverable Robust Facility Location Problem. Dans: Graz Discrete Mathematics and Optimization Seminar, TU Graz. Graz.

LJUBIC, I. (2010). Dissaggregated Flow Formulation for the Single-Source Network-Loading Problem. Dans: COGA, TU Berlin.

LJUBIC, I. (2010). OptTelNets: Algorithmische Ansätze. Dans: COGA, TU Berlin. Berlin.

LJUBIC, I. (2010). Two-Stage Branch & Cut for Two-Stage Stochastic Network Design Problems. Dans: Algorithm Engineering Seminar, Schloss Dagstuhl.

LJUBIC, I. (2007). Connected facility location in the design of telecommunication networks. Dans: ISDS-Kolloquium, University of Vienna. Vienna.

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2016). A New Exact Solver for Mixed-Integer Bilevel Linear Programs Based on Intersection Cuts. Dans: International Colloquium on Graphs and Optimization 2016 (GO X 2016).

LEITNER, M., LJUBIC, I., RIEDLER, M. et RUTHMAIR, M. (2016). Exact Approaches for Network Design Problems with Relays. Dans: 4th International Symposium on Combinatorial Optimization (ISCO 2016).

LJUBIC, I. (2017). A Branch-and-Cut Algorithm for Mixed Integer Bilevel Optimization. Dans: 21st Combinatorial Optimization Workshop.

LJUBIC, I., FURINI, F., MARTIN, S. et SAN SEGUNDO, P. (2017). Clique Interdiction in the Social Network Analysis. Dans: International Conference on Network Optimization) INOC 2017.

CORDEAU, J.F., FURINI, F. et LJUBIC, I. (2018). Decomposition Approaches to Covering Location Problems. Dans: 23rd International Symposium on Mathematical Programming (ISMP) 2018.

LEITNER, M., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2017). Decomposition Methods for Stochastic Steiner Trees. Dans: 2017 European Conference on Stochastic Optimization (ECSO 2017).

FISCHETTI, M., LJUBIC, I. et SINNL, M. (2016). Generalized Benders Cuts for Congested Facility Location. Dans: 9th Triennial Symposium on Transportation Analysis (TRISTAN16).

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2016). Intersection Cuts for Mixed-Integer Bilevel Linear Programs. Dans: 28th European Conference on Operational Research.

LJUBIC, I. (2019). New Branch-and-Cut Algorithms for Mixed-Integer Bilevel Linear Programs. Dans: Séminaire Parisien d'Optimisation.

LJUBIC, I. et MORENO, E. (2017). Outer Approximation and Submodular Cuts for Maximum Capture Facility Location Problems with Random Utilities. Dans: Optimization 2017 Conference.

CORDEAU, J.F., FURINI, F. et LJUBIC, I. (2018). Benders Decomposition for Covering Location Problems. Dans: 29th European Conference on Operations Research.

LJUBIC, I., LEITNER, M., RUTHMAIR, M. et RIEDLER, M. (2015). Exact Approaches to the Network Design Problem with Relays. Dans: OR2015: International Conference on Operations Research.

LJUBIC, I. (2018). Exact General-Purpose Solvers for Mixed-Integer Bilevel Linear Programs. Dans: 37ème Journée Francilienne de Recherche Opérationnelle (JFRO).

FISCHETTI, M., LJUBIC, I., MONACI, M. et SINNL, M. (2016). Interdiction Games and Monotonicity. Dans: PGMO Days 2016.

LJUBIC, I., ALVAREZ-MIRANDA, E., LUIPERSBECK, M. et SINNL, M. (2016). Solving Minimum

cost Shared Arborescence Problems. Dans: Thirteenth INFORMS Telecommunications Conference.

ÁLVAREZ-MIRANDA, E., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2016). Solving Minimum-Cost Shared Arborescence Problems. Dans: 28th European Conference on Operational Research.

LEITNER, M., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2016). Solving Minimum-Cost Shared Arborescence Problems. Dans: INFORMS Telecommunications Conference 2016.

CHEN, S., LJUBIC, I. et RAGHAVAN, S. (2016). The Generalized Regenerator Location Problem. Dans: 13th INFORMS Telecommunications Conference 2016.

LJUBIC, I. (2012). Optimization Tools for Last Mile Access Networks. Dans: Colloquium of the Computer Science Department, Faculty of Mathematics and Natural Sciences. Cologne.

LJUBIC, I. (2011). The Generalized Regenerator Location Problem. Dans: Decision, Operations and Information Technologies Seminar, University of Maryland. Maryland.

LEITNER, M., LJUBIC, I., LUIPERSBECK, M. et SINNL, M. (2017). A Dual-Ascent-Based Branch-And-Bound Framework for the Prize-Collecting Steiner Tree and Related Problems. Dans: Journées Polyèdres et Optimisation Combinatoire JPOC10.

LJUBIC, I. (2020). Branch-and-Cut Solvers for Mixed-Integer Bilevel Linear Programs. Dans: Autumn School on Bilevel Optimization. Online.

FURINI, F., LJUBIC, I., MARTIN, S. et SAN SEGUNDO, P. (2018). Analyzing the Resilience of the Networks with respect to Vertex-Interdiction Attacks. Dans: 2018 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting.

FURINI, F., LJUBIC, I., SAN SEGUNDO, P. et ZHAO, Y. (2021). The Edge Interdiction Clique Problem. Dans: 31st European Conference on Operational Research 2021. Athens (virtual).

ARCHETTI, C. et LJUBIC, I. (2021). Aggregated Formulations for the Inventory Routing Problem. Dans: 2021 Optimization in Artificial Intelligence and Data Sciences (ODS). Rome.

ARULSELVAN, A., BLEY, A. et LJUBIC, I. (2018). MIP Modeling of Incremental Connected Facility Location. Dans: 14th Institute for Operations Research and the Management Sciences (INFORMS) Telecommunications Conference.

ALFANDARI, L., FURINI, F., LJUBIC, I. et MARTIN, S. (2017). New MIP models for Liner Shipping Route Design with Empty Container Repositioning. Dans: 18ème Conférence ROADEF de la Société Française de Recherche Opérationnelle et d'Aide à la Décision.

ALFANDARI, L., DAVIDOVIC, T., FURINI, F., LJUBIC, I., MARAS, V. et MARTIN, S. (2018). New MIP models for liner shipping route design with empty container repositioning. Dans: 4th International Conference on Logistics Operations Management (GOL'2018).

LJUBIC, I., FURINI, F., MARTIN, S. et SAN SEGUNDO, P. (2017). On Click Interdiction Problems in

Graphs. Dans: 18ème édition du congrès annuel de la Société Française de Recherche Opérationnelle et d'Aide à la Décision, ROADEF2017.

FURINI, F., LJUBIC, I., MALAGUTI, E. et PARONUZZI, P. (2019). On Integer and Bilevel Formulations for the k-Vertex Cut Problem. Dans: 2019 International Network Optimization Conference (INOC 2019).

ALFANDARI, L., LJUBIC, I. et MELO, M. (2019). Optimal Vehicle Routing with Autonomous Devices for Last-Mile Delivery. Dans: 2019 Workshop of the EURO Working Group on Vehicle Routing and Logistics optimization (VeRoLog 2019).

LJUBIC, I. (2017). Recent Developments on Exact Solvers for the (Prize-Collecting) Steiner Tree Problem. Dans: 22nd edition of the COMEX Belgian Mathematical Optimization Workshop. La-Roche-en-Ardennes.

FISCHETTI, M., LJUBIC, I. et SINNL, M. (2016). Solving Congested Facility Location by Branch-and-Cut. Dans: 17eme Congrés Annuel de la Société Française de Recherche Opérationnelle et d'Aide à la Décision (ROADEF 2016).

LEITNER, M., LJUBIC, I., RUTHMAIR, M. et RIEDLER, M. (2018). The Directed Network Design Problem with Relays. Dans: 7th International Workshop on Freight Transportation and Logistics 2018.

ALFANDARI, L., DAVIDOVIC, T., FURINI, F., LJUBIC, I., MARAS, V. et MARTIN, S. (2017). Tighter MIP Formulations for the Barge Container Ship Routing Problem. Dans: 21st Conference of the International Federation of Operational Research Societies (IFORS).

LJUBIC, I. et BECK, Y. (2023). Bilevel Optimization Under Uncertainty. Dans: 25th Combinatorial Optimization Workshop in Aussois. Aussois.

LJUBIC, I. (2023). Recent Advances in Discrete and Robust Bilevel Optimization. Dans: 2023 Kaiserslautern Applied and Industrial Mathematics Days (KLAIM 2023). Kaiserslautern.

LJUBIC, I. (2023). Bilevel Optimization Under Uncertainty. Dans: 2023 International Conference on Bilevel Optimization. Southampton.

ALFANDARI, L., LJUBIC, I. et PUNAM-MANDAL, M. (2025). Robust optimization for disaster preparedness with aftershocks. Dans: 2025 ROADEF. Champs-sur-Marne.

LJUBIC, I. (2020). Branch-and-Benders-cut algorithms: modern implementations of Benders Decomposition, (Invited Tutorial), Dans: 9th Winter School on Network Optimization (NetOpt2020). Estoril.

LJUBIC, I. (2015). On Benders Decomposition for Facility Location. Dans: 9ème Journée d'Automne d'Optimisation dans les Réseaux, ROADEF GT d'Optimisation des Réseaux, Institut Henri Poincaré.

LJUBIC, I. (2015). A polyhedral study of the diameter constrained minimum spanning tree problem. Dans: Seminario conjunto ACGO y Matemáticas Discretas, Center of Mathematical Modeling. Santiago.

LJUBIC, I. (2013). The Maximum Weight Connected Subgraph Problem: Applications in Bioinformatics. Dans: The Centre for Bioinformatics, Biomarker Discovery and Information-Based Medicine (CIBM), University of Newcastle. Newcastle.

LJUBIC, I. (2012). Solving 2-Stage Stochastic Network Design Problems by 2-Stage Branch- and-Cut. Dans: Seminarios CIO, Centro de Investigacao Operacional, Faculdade de Ciencias, Universidade de Lisboa. Lisboa.

LJUBIC, I. (2012). The Recoverable Robust Two-Level Network Design Problem. Dans: Kolloquium Optimierung und Operations Research der Wirtschafts- und Sozialwis- senschaftlichen Fakultät, der Fakultät für Informatik und der Fakultät für Mathematik, TU Dortmund. Dortmund.

LJUBIC, I. (2012). Solving Two-Stage Stochastic Steiner Tree Problems by Two-Stage Branch- and-Cut. Dans: Department of Decision Sciences, I2SDS Seminar, George Washington University. Washington DC.

LJUBIC, I. (2006). Optimization in Telecommunication Networks: Multicommodity Flow, Facil- ity Location and Steiner Tree Problems. Dans: CI-Colloquium, Sonderforschung-bereich Computational Intelligence, University of Dortmund. Dortmund.

LJUBIC, I., FURINI, F., MALAGUTI, E. et PARONUZZI, P. (2020). New Integer and Bilevel Formulations for the k-Vertex Cut Problem. Dans: 22ème séminaire du groupe Polyèdres et Optimisation Combinatoire (POC). Online.

ALFANDARI, L., LJUBIC, I. et DE MELO DA SILVA, M. (2021). A tailored Benders Decomposition Approach for Last-Mile Delivery With autonomous Robots. Dans: 31st European Conference on Operational Research 2021 (EURO 2021). Athens.

DELLE DONNE, D., ALFANDARI, L., ARCHETTI, C. et LJUBIC, I. (2022). Freight-on-Transit for urban last-mile deliveries: A Strategic Planning Approach. Dans: International Workshop on Freight Transportation and Logistics (ODYSSEUS). Tanger.

DELLE DONNE, D., ALFANDARI, L., ARCHETTI, C. et LJUBIC, I. (2021). Freight on Public Transport: Strategical decision making with mixed integer programming. Dans: European Conference on Operational Research (EURO). Athens.

DELLE DONNE, D., ALFANDARI, L., ARCHETTI, C. et LJUBIC, I. (2022). Freight-on-Transit for urban last-mile deliveries: A Strategic Planning Approach. Dans: Spanish Conference on Statistics and Operations Research (SEIO). Granada.

LEITNER, M., LJUBIC, I., RIEDLER, M. et RUTHMAIR, M. (2020). Two Branch-and-cut Algorithms for the Directed Network Design Problem with Relays. Dans: 15th INFORMS Telecommunications and Network Analytics Conference.

ARCHETTI, C., CERULLI, M., FERNÁNDEZ, E. et LJUBIC, I. (2023). A bilevel pricing and routing problem. Dans: 24ème Congrès Annuel de la Société Française de Recherche Opérationnelle et d'Aide à la Décision (ROADEF 2023). Rennes.

GAAR, E., LEE, J., LJUBIC, I., SINNI, M. et TANINMIS, K. (2022). On SOCP-based disjunctive cuts for solving a class of integer bilevel nonlinear programs. Dans: 2023 Optimization at the Second Level. Dagstuhl.

LI, Y., ARCHETTI, C. et LJUBIC, I. (2022). Reinforcement Learning Approaches for the Orienteering Problem with Stochastic and Dynamic Release Dates. Dans: 2022 Italian Operations Research Society (AIRO) (2022 ODS). Florence.

RAMÍREZ-PICO, C., LJUBIC, I. et MORENO, E. (2023). Benders Adaptive-Cuts Method for Two-Stage Stochastic Programs. Dans: 2023 The International Conference on Optimization and Decision Science. Ischia.

ALFANDARI, L., LJUBIC, I. et PUNAM-MANDAL, M. (2023). Robust Facility Location in Disaster Preparation for Earthquakes with Aftershocks. Dans: OR 2023: Decision Support & Choice-Based Analytics for a Disruptive World. Hamburg.

LJUBIC, I. (2023). Bilevel Optimization Under Uncertainty: Challenges and Opportunities. Dans: 20th International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR 2023). Nice.

LJUBIC, I., CONIGLIO, S. et FURINI, F. (2023). Submodular Maximization of Concave Utility Functions Composed with Set-Union Operator with Applications to Maximal Coverin Locati Problems. Dans: Treizième édition des Journées Polyèdres et Optimisation Combinatoire (JPOC13). Clermont-Ferrand.

ALFANDARI, L., LJUBIC, I. et PUNAM-MANDAL, M. (2024). Robust facility location for earthquake preparedness with aftershocks. Dans: 2024 Optimisation au deuxième niveau (Centre International de Rencontres Mathématiques). Marseille.

ALFANDARI, L., HASSANZADEH, A. et LJUBIC, I. (2024). Fractional programming for Assortment optimization. Dans: 2024 International Symposium on Combinatorial Optimization (ISCO). Tenerife.

BECK, Y., LJUBIC, I. et SCHMIDT, M. (2025). Bilevel Problems with Gamma-Robust Followers: Exact and Heuristic Approaches. Dans: 2025 Institute for Operations Research and the Management Sciences (INFORMS) Computing Society Conference. Toronto.

CONFERENCE PROCEEDINGS

ARULSELVAN, A., LJUBIC, I., BLEY, A., GOLLOWITZER, S. et MAURER, O. (2011). MIP modeling of incremental connected facility location. Dans: *Proceedings of INOC 2011*. Springer, pp. 490-502.

CHIMANI, M., KANDYBA, M., LJUBIC, I. et MUTZEL, P. (2008). Obtaining optimal k-cardinality

trees fast. Dans: *ALENEX*. SIAM, pp. 27-36.

LEITNER, M., LJUBIC, I., SALAZAR-GONZALEZ, J.J. et SINNL, M. (2014). On the Asymmetric Connected Facility Location Polytope. Dans: *ISCO 2014*. Springer, pp. 371-383.

ÁLVAREZ-MIRANDA, E., LJUBIC, I. et MUTZEL, P. (2013). The Rooted Maximum Node-Weight Connected ´ Subgraph Problem. Dans: *CPAIOR 2013*. Springer, pp. 300-315.

LJUBIC, I., MUTZEL, P. et ZEY, B. (2013). Stochastic survivable network design problems. Dans: *Proceedings of INOC 2013*. Electronic Notes in Discrete Mathematics (ENDM), pp. 245–252.

TOMAZIC, A. et LJUBIC, I. (2008). A GRASP algorithm for the connected facility location problem. Dans: *IEEE/IPSJ International Symposium on Applications and the Internet*. Institute of Electrical and Electronics Engineers (IEEE), pp. 257-260.

LJUBIC, I., WEISKIRCHER, R., PFERSCHY, U., KLAU, G., MUTZEL, P. et FISCHETTI, M. (2005). Solving the prize-collecting Steiner tree problem to optimality. Dans: *ALENEX/ANALCO*. SIAM, pp. 68-76.

KLAU, G., LJUBIC, I., MUTZEL, P., PFERSCHY, U. et WEISKIRCHER, R. (2003). The fractional prize collecting Steiner tree problem on trees: Extended abstract. Dans: *ESA*. Springer, pp. 691-702.

LEITNER, M., LJUBIC, I., SINNL, M. et WERNER, A. (2013). On the two-architecture connected facility location problem. Dans: *Proceedings of INOC 2013*. Electronic Notes in Discrete Mathematics (ENDM), pp. 359-366.

LEITNER, M., LJUBIC, I. et SINNL, M. (2013). Solving the bi-objective prize-collecting Steiner tree problem with the e-constraint method. Dans: *Proceedings of INOC 2013*. Electronic Notes in Discrete Mathematics (ENDM), pp. 181-188.

GOUVEIA, L., LEITNER, M. et LJUBIC, I. (2012). On the hop constrained Steiner tree problem with multiple root nodes. Dans: *Proceedings of the 2nd International Symposium on Combinatorial Optimization*. Springer, pp. 201-212.

GOLLOWITZER, S., GOUVEIA, L. et LJUBIC, I. (2012). Variable neighborhood search for solving the balanced location problem. Dans: *Proceedings of EUROmC XXVIII VNS*. Electronic Notes in Discrete Mathematics (ENDM), pp. 21-28.

ÁLVAREZ-MIRANDA, E., LJUBIC, I. et TOTH, P. (2011). Exact solutions for the robust prize-collecting Steiner tree problem. Dans: *ICUMT 2011, Budapest, Hungary, Proceedings*. Institute of Electrical and Electronics Engineers (IEEE), pp. 1-7.

LJUBIC, I., PUTZ, P. et SALAZAR-GONZALEZ, J.J. (2011). A heuristic algorithm for a prize-collecting local access network design problem. Dans: *Proceedings of INOC 2011*. Springer, pp. 139-144.

GOLLOWITZER, S., LJUBIC, I. et GOUVEIA, L. (2011). A node splitting technique for two level network design problems with transition nodes. Dans: *Proceedings of INOC 2011*. Springer, pp. 57-70.

BOMZE, I.M., LJUBIC, I., CHIMANI, M., JÜNGER, M., MUTZEL, P. et ZEY, B. (2010). Solving two-stage stochastic Steiner tree problems by two-stage branch-and-cut. Dans: *Proceedings of the 21st International Symposium on Algorithms and Computation (ISAAC 2010)*. Springer, pp. 427-439.

LJUBIC, I. et GOLLOWITZER, S. (2010). Modelling the hop constrained connected facility location problem on layered graphs. Dans: *Proceedings of the International Symposium on Combinatorial Optimization (ISCO) 2010*. Electronic Notes in Discrete Mathematics (ENDM), pp. 207-214.

CHIMANI, M., LJUBIC, I., KANDYBA, M. et MUTZEL, P. (2008). Strong formulations for 2-node-connected Steiner network problems. Dans: *Combinatorial Optimization and Applications, Second International Conference, COCOA*. Springer, pp. 190-200.

MOUACI, A., LJUBIC, I., GOURDIN, E. et PERROT, N. (2020). Virtual Network Functions Placement and Routing Problem: Path formulation. Dans: *2020 IFIP Networking Conference (Networking)*. IEEE Xplore, pp. 55-63.

INVITED SPEAKER AT AN ACADEMIC CONFERENCE

LJUBIC, I. (2019). From Game Theory to Graph Theory: A Bilevel Journey (EURO 2019 Tutorial). Dans: 30th European Conference on Operational Research. Dublin.

LJUBIC, I. (2018). Recent Developments on Exact Solvers for the (Prize-Collecting) Steiner Tree Problem (Invited Tutorial). Dans: Winter School on Network Optimization NetOpt2018.

LJUBIC, I. (2015). Redesigning Benders Decomposition for Large Scale Facility Location. Dans: GOM Seminar, Université Libre de Bruxelles. Bruxelles.

LJUBIC, I. (2015). On optimal design of charging stations for electric vehicles. Dans: PGMO Seminar, École Polytechnique. Paris.

LJUBIC, I. (2015). MIP Approaches to the Lazy Bureaucrat and Greedy Boss Problems. Dans: Séminaire Pôle 2 Optimisation Combinatoire, University Paris Dauphine. Paris.

LJUBIC, I. (2015). A New Modeling Concept for Facility Location Under Uncertainty. Dans: Seminar of the Operations Group, Universidad Adolfo Ibanez. Santiago.

LJUBIC, I. (2012). The Maximum Weight Connected Subgraph Problem. Dans: COGA Seminar, TU Berlin. Berlin.

LJUBIC, I. (2018). Very Large Scale Covering Location Problems in the Design of Advanced Metering Infrastructure. Dans: Workshop on Smart Cities Analytics.

LJUBIC, I. (2016). [Keynote] A new general-purpose algorithm for mixed-integer bilevel linear programs. Dans: 15ème Séminaire du Groupe POC "Combinatorial Bi-level optimization".

LJUBIC, I. (2018). [Plenary Speaker] New Branch-and-Cut Algorithms for Mixed-Integer Bilevel Linear Programs. Dans: 2nd International Workshop on Bilevel Programming (IWOBIP'18).

LJUBIC, I. (2018). [Plenary Speaker] From Game Theory to Graph Theory: A Bilevel Journey. Dans: International Conference on Operations Research (OR 2018).

LJUBIC, I. (2021). New Integer and Bilevel Formulations for the k-Vertex Cut Problem, Dans: 5th AIRO Young Workshop. Napoli (online).

BECK, Y., LJUBIC, I. et SCHMIDT, M. (2022). [Plenary Speaker] Bilevel Optimization Under Uncertainty. Dans: PGMODays 2022. Palaiseau.

FURINI, F., LJUBIC, I. et SAN SEGUNDO, P. (2022). Lower bounds for Ramsey numbers on circulant graphs. Dans: Women in Optimization 2022. Berlin.

ARCHETTI, C. et LJUBIC, I. (2022). Comparison of Formulations for the Inventory Routing Problem. Dans: 3rd Workshop on Combinatorial Optimization. Online.

LJUBIC, I. (2024). Benders Adaptive-Cuts for Two-Stage Stochastic Optimization. Dans: Benders Day, Eindhoven University of Technology. Eindhoven.

LJUBIC, I. (2024). Benders decomposition for the discrete ordered median problem. Dans: 13? Journées Thématiques du Groupe de Travail "Optimisation dans les Réseaux". Paris.

LJUBIC, I. (2024). Interdiction and Blocking Problems. Dans: Winter School on Network Optimization, organized by University of Lisbon. Estoril.

LJUBIC, I. (2019). Solving Very Large Scale Covering Location Problems using Branch-and-Benders-Cuts. Dans: IX International Workshop on Locational Analysis and Related Problems 2019. Cadiz.

LJUBIC, I. (2021). [Plenary Speaker] Mixed Integer Bilevel Optimization. Dans: SIAM Conference on Optimization (OP21). Virtual.

LJUBIC, I., FURINI, F., MALAGUTI, E. et PARONUZZI, P. (2020). Casting Light on the Hidden Bilevel Combinatorial Structure of the Capacitated Vertex Separator Problem. Dans: Mixed Integer Programming Workshop 2020 Online Edition.

ALFANDARI, L., LJUBIC, I. et DE MELO DA SILVA, M. (2022). A Tailored Benders Decomposition Approach for Last-mile Delivery with Autonomous Robots. Dans: International Conference on Operations Research and Enterprise Systems (ICORES). Online.

CERULLI, M., DOMENICO, S., SORGENTE, C., ARCHETTI, C. et LJUBIC, I. (2023). Mathematical Programming Formulations for the Collapsed k-Core Problem. Dans: 2023 Mathematics &

Applications, Winter Meeting. Lisbon.

LJUBIC, I. (2024). [Plenary] Benders Adaptive-Cuts for Network Design and Facility Location Problems Under Uncertainty. Dans: International Network Optimization Conference (INOC) 2024, University College Dublin.

LJUBIC, I. (2024). Introduction to computational bilevel optimization with an application to a pricing problem for last-mile delivery. Dans: Gerhard Woeginger Research Colloquium, RWTH Aachen University, Germany. Aachen.

LJUBIC, I. (2024). Introduction to computational bilevel optimization with an application to a pricing problem for last-mile delivery. Dans: Workshop on Ordered Structures in Games and Decision (OSGaD), Centre d'Economie de la Sorbonne. Paris.

OTHER

LJUBIC, I. (2021). Panel Discussion "Real-World Optimisation Models: Successes and Pitfalls," at the Beale Lecture 2021. Online:

PRESS ARTICLE, VIDEO OR OTHER POPULAR MEDIA

ALFANDARI, L., ARCHETTI, C. et LJUBIC, I. (2021). Sustainable city logistics. *ESSEC Knowledge*.

DELLE DONNE, D., ARCHETTI, C., LJUBIC, I. et ALFANDARI, L. (2023). When public transport delivers. *ESSEC Knowledge.*

PREFACES OF A JOURNAL

BARAHONA, F., DEY, S., MAHJOUB, A.R. et LJUBIC, I. (2025). Preface: Combinatorial Optimization ISCO 2022. *Discrete Applied Mathematics*, In press.

EHRGOTT, M., LJUBIC, I. et PARRAGH, S.N. (2017). EDITORIAL: Feature Cluster: Recent Advances in Exact Methods for Multi-Objective Optimization. *European Journal of Operational Research*, 260(3), pp. 805-806.

FURINI, F., LJUBIC, I. et TRAVERSI, E. (2020). Preface: decomposition methods for hard optimization problems. *Annals of Operations Research*, 284(2), pp. 483–485.

GUEST EDITOR OF A JOURNAL SPECIAL ISSUE

EHRGOTT, M., LJUBIC, I. et PARRAGH, S.N. (2017). European Journal of Operational Research.

European Journal of Operational Research, 260(3).

LJUBIC, I., FURINI, F. et TRAVERSI, E. (2020). Special issue on "Decomposition Methods for Hard Optimization Problems". *Annals of Operations Research*, 284(2).

DOERNER, K., LJUBIC, I., PFLUG, G. et TRAGLER, G. (2017). Operations Research Proceedings 2015 ISSN: 0721-5924. *Operations Research Proceedings.*

PREFACES OF A BOOK

LJUBIC, I., BARAHONA, F., DEY, S.S. et MAHJOUB, A.R. (2022). Preface. Dans: *Combinatorial Optimization*. 1st ed. Springer, pp. vi.

RESEARCH ACTIVITIES

Organization of a conference or a seminar
2015 - 2015:	"Operations Research 2015" conference (Université de Vienne Austria)
2014 - 2014:	Workshop "Recent Advances in Multi-Objective Optimization" (Université de Vienne Austria)
2014 - 2014:	Workshop "Routing and Networks" (Université de Vienne Austria)
2019 - 2019:	Autumn school on advanced BCP tools: VRPSolver and ColunaAutumn school on advanced BCP tools: VRPSolver and Coluna (France)
2019 - 2019:	Optimization and Data Science (France)
2019 - 2019:	EURO 2019 Conference, Stream "Network Analytics and Optimization" (Ireland)
2018 - 2018:	Optimization, Games and Data Analysis" Workshop (OGDA2018) (Austria)
2018 - 2018:	"Machine Learning, Networks and Combinatorial Optimization" Workshop (France)
2018 - 2018:	"Cologne-Twente Workshop 2018" (CTW2018) (Conservatoire National des Arts & Métiers (CNAM) France)
2014 - 2014:	INFORMS Telecommunication Conference 2014 (Portugal)
2014 - 2014:	IFORS 2014 (Spain)
2013 - 2013:	Workshop "Optimization Tools for Next Generation Telecommunication Networks" (Austrian Academy of Sciences Austria)
2019 - Now:	Member of Editorial Advisory Board - SN Operations Research Forum (SN Operations Research Forum)

Participation in scientific commissions or reviewer for a conference
2016 - 2016:	Program committee member : European Conference on Operational Research, EURO 2016, Poznan (Poland)
2015 - 2015:	Program committee member : International Network Optimization Conference, INOC 2015, Warsaw (Poland)

2014 - 2014:	Program committee member : International Symposium on Combinatorial Optimization, ISCO 2014, Lisbon (Portugal)
2014 - 2014:	Program Committee : INFORMS Telecommunication Conference 2014, Lisbon (Portugal)
2018 - 2018:	Reviewer for Integer Programming and Combinatorial Optimization (IPCO 2018)
2014 - 2014:	Reviewer for Integer Programming and Combinatorial Optimization (IPCO 2014)
2013 - 2013:	Reviewer for International Symposium on Experimental Algorithms (SEA 2013)
2012 - 2012:	Reviewer for International Colloquium on Automata, Languages and Programming (ICALP 2011)
2011 - 2011:	Reviewer for European Symposia on Algorithms (ESA 2011)
2009 - 2009:	Reviewer for International Network Optimization Conference (INOC 2009)
2002 - 2002:	Reviewer for Graph Drawing (GD 2002)
2002 - 2002:	Reviewer for European Symposia on Algorithms (ESA 2002)
2001 - 2001:	Reviewer for European Symposia on Algorithms (ESA 2001)
2019 - 2019:	Reviewer for DFG (Deutsche Forschungsgemeinschaft) (Germany)
2017 - 2017:	Reviewer for FONDECYT (Fondo Nacional de Desarrollo Científico y Tecnológico) (Chile)
2015 - 2015:	Reviewer for FONDECYT (Fondo Nacional de Desarrollo Científico y Tecnológico) (Chile)
2012 - 2012:	Reviewer for FONDECYT (Fondo Nacional de Desarrollo Científico y Tecnológico) (Chile)
2017 - 2017:	International Network Optimization Conference, INOC 2017
2018 - 2018:	International Symposium on Combinatorial Optimization, ISCO 2018
2018 - 2018:	International Symposium on Mathematical Programming, ISMP 2018
2018 - 2018:	Program Committee Member : INFORMS Telecommunication Conference 2018
2019 - 2019:	Program Committee member : International Network Optimization Conference, INOC 2019
2020 - 2020:	Program Committee member: International Symposium on Combinatorial Optimization, ISCO 2020
2020 - 2020:	Program Committee member: INFORMS Telecommunication & Network Analytics Conference 2020
2020 - 2020:	Program Committee member: International Symposium on Combinatorial Optimisation 2020
2016 - 2016:	Program Committee member: INFORMS Telecommunication Conference 2016
2015 - 2015:	Program Committee member: International Network Optimization Conference, INOC 2015
2015 - 2015:	Program Committee member: 11th Metaheuristics International Conference, MIC 2015
2013 - 2013:	Program Committee Member: International Network Optimization Conference, INOC 2013
2013 - 2013:	Program Committee member : 10th Metaheuristics International Conference, MIC 2013
2012 - 2012:	Program Committee member : INFORMS Telecommunication Conference 2012

2011 - 2011:	Program Committee member: International Network Optimization Conference, INOC 2011
2010 - 2010:	Program Committee member: Third international workshop on model-based metaheuristics, Matheuristics 2010
2008 - 2008:	Program Committee member: Workshop on Heuristic Methods for the Design, Deployment, and Reliability of Networks and Network Applications, HEUNET 2008
2005 - 2005:	Program Committee member: The Genetic and Evolutionary Computation Conference, GECCO 2005
2001 - 2005:	Program Committee member: European Conferences on Evolutionary Computation in Combinatorial Optimisation EvoCOP

Function in an academic association

2018 - Now:	INFORMS Telecommunication & Network Analytics Section, Chair
2006 - 2008:	Member of the executive board of the Austrian Society of Operations Research OEGOR
2017 - 2018:	Vice-president of the INFORMS Telecommunication Section
2010 - 2016:	Member of council and secretary of the INFORMS Telecom Section

Senior or Associate Editor

2016 - 2021:	Associate editor - Omega
2019 - Now:	Associate Editor - Networks
2017 - 2021:	Associate Editor - Journal of Global Optimization
2021 - Now:	Associate Editor - Transportation Science

Editorial Board Membership

2016 - Now:	Editorial board membership - Computers & Operations Research
2018 - 2025:	Editorial board membership - European Journal of Operational Research
2023 - Now:	Associate Editor - Operations Research
2020 - Now:	Editorial board member - Networks: An International Journal
2021 - Now:	Editorial board membership - Transportation Science

Reviewer for a journal

- Reviewer for 4OR: A Quarterly Journal of Operations Research
- Annals of Operations Research
- Computational Management Science
- Computational Optimization and Applications
- Computers & Operations Research
- Discrete Applied Mathematics
- Discrete Optimization
- European Journal of Operational Research

- European Journal on Computational Optimization
- Evolutionary Computation
- IEEE Transactions on Evolutionary Computation
- IIE Transactions
- INFOR
- INFORMS Journal on Computing
- International Transactions in Operational Research
- Journal of Combinatorial Optimization
- Journal of Global Optimization
- Journal of Heuristics
- Management Science
- Mathematical Methods of Operations Research
- Mathematical Programming
- Networks
- Omega
- Operations Research
- Operations Research Letters
- Optimization Letters
- OR Spektrum
- Plos One
- SIAM Journal on Optimization
- Transportation Science

Member of an academic association

2003 - 2003:   Member of the IEEE Computational Intelligence Society (CIS)

PROFESSIONAL ACTIVITIES

Consulting

2007 - 2010:   OptTelNets, project with Telecom Austria A1

Other professional activity

2017 - Now: Orange Labs, France: Optimal Instantiation of Service Chains in Software
                 Defined Networks. CIFRE contract (PhD supervision of Ahlam Mouaci)

2006 - 2010:   Telekom Austria AG: Optimal Design of FTTx Telecommunication Networks:
                 (supervision of 2 PhD students)