

Z. Caner Taşkın

Professor

Department of Industrial Engineering, Boğaziçi University

34342 Bebek, İstanbul, Turkey

Phone: +90 (212) 359 7074

Fax: +90 (212) 265 1800

E-mail: caner.taskin@bogazici.edu.tr

Website: <https://zctaskin.github.io>

Education

- **Ph.D., *Industrial and Systems Engineering***, August 2009
University of Florida, Gainesville, FL
 - Dissertation: “Algorithms for Solving Multi-Level Optimization Problems with Discrete Variables at Multiple Levels”
- **M.S., *Industrial Engineering***, August 2005
Boğaziçi University, İstanbul, Turkey
 - Thesis: “Tactical and Strategic Level Planning in Float Glass Manufacturing with Co-production, Random Yields and Substitutable Products”
- **B.S., *Industrial Engineering***, June 2003
Boğaziçi University, İstanbul, Turkey

Employment

- July 2018 – Present: Professor, Department of Industrial Engineering, Boğaziçi University
- September 2019 – August 2020: Visiting Professor, Econometric Institute, Erasmus University Rotterdam (sabbatical leave)
- August 2013 – July 2018: Associate Professor, Department of Industrial Engineering, Boğaziçi University
- September 2009 – August 2013: Assistant Professor, Department of Industrial Engineering, Boğaziçi University

Honors

- Best Application Paper in the 2020 IISE Transactions Focus Issue on Operations Engineering and Analytics (2021)
- Science Academy’s Young Scientist Awards Program (BAGEP 2020) (April 2020)
- EURO Excellence in Practice Award (EEPA 2015) – Finalist (July 2015)
- YAEM 2012 – Best IE/OR Application Award (June 2012)
- IIE Pritsker Doctoral Dissertation Award, First Place (July 2010)
- INFORMS Future Academician Colloquium Participant (November 2008)

- Graduate Student Award for Excellence in Research, Department of Industrial and Systems Engineering, University of Florida (April 2008)
- University of Florida Alumni Fellowship (2005-2009)

Journal Publications

1. Wilco van den Heuvel, Semra Ağralı, Z. Caner Taşkın, “A Decomposition Algorithm for Single and Multi-Objective Integrated Market Selection and Production Planning”, *INFORMS Journal on Computing*, 35(6):1439-1453, 2023.
2. Ali Erdem Banak, Tınaz Ekim, **Z. Caner Taşkın**, “Constructing extremal triangle-free graphs using integer programming”, *Discrete Optimization*, 50, 100802, 2023.
3. Oylum Şeker, Pınar Heggernes, Tınaz Ekim, **Z. Caner Taşkın**, “Generation of random chordal graphs using subtrees of a tree,” *RAIRO-Operations Research*, 56, 565–582, 2022.
4. Bahadır Pamuk, Semra Ağralı, **Z. Caner Taşkın**, Banu Kabakulak, “A Lot-Sizing Problem in Deliberated and Controlled Co-Production Systems,” *IIEE Transactions*, 54(10), 950–962, 2022.
5. Emel Şeyma Küçükaşçı, Mustafa Gökçe Baydoğan, **Z. Caner Taşkın**, “Multiple Instance Classification via Quadratic Programming” *Journal of Global Optimization*, 83, 639–670, 2022.
6. Banu Kabakulak, **Z. Caner Taşkın**, Ali Emre Pusane, “A Branch-Price-and-Cut Algorithm for Optimal Decoding of LDPC Codes” *Journal of Global Optimization*, 81, 805-834, 2021.
7. Serkan Kalay, **Z. Caner Taşkın**, “A branch-and-price algorithm for parallel machine campaign planning under sequence dependent family setups and co-production” *Computers & Operations Research*, 135, 105430, 2021.
8. Oylum Şeker, Tınaz Ekim, **Z. Caner Taşkın**, “An Exact Cutting Plane Algorithm to Solve the Selective Graph Coloring Problem in Perfect Graphs,” *European Journal of Operational Research*, 291(1), 67-83, 2021.
9. Serkan Kalay, **Z. Caner Taşkın**, “Single Machine Campaign Planning under Sequence Dependent Family Setups and Co-Production,” *Journal of the Operational Research Society*, 72(9), 2091 – 2111, 2021.
10. Emel Şeyma Küçükaşçı, Mustafa Gökçe Baydoğan, **Z. Caner Taşkın**, “A Linear Programming Approach to Multiple Instance Learning,” *Turkish Journal of Electrical Engineering & Computer Sciences*, 29, 2186 – 2201, 2021.
11. A. Tamer Ünal, Semra Ağralı, **Z. Caner Taşkın**, “A strong integer programming formulation for hybrid flowshop scheduling,” *Journal of the Operational Research Society*, 71(12), 2042-2052, 2020.
12. M. Aslı Aydın, **Z. Caner Taşkın**, “Decentralized Decomposition Algorithms for Peer-to-Peer Linear Optimization,” *RAIRO-Operations Research*, 54(6), 1835 – 1861, 2020.
13. Abdullah Sarıduman, Ali Emre Pusane, **Z. Caner Taşkın**, “On the Construction of Regular QC-LDPC Codes with Low Error Floor,” *IEEE Communications Letters*, 24(1), 25-28, 2020.
14. Banu Kabakulak, **Z. Caner Taşkın**, Ali Emre Pusane, “A branch-and-cut algorithm for a bipartite graph construction problem in digital communication systems,” *Networks*, 75(2), 137-157, 2020.
15. Pınar Dursun, **Z. Caner Taşkın**, İ. Kuban Altınel, Hatice Bilge, Nazmiye Dönmez Kesen, Murat Okutan, Ethem Nezih Oral “A column generation heuristic for VMAT treatment planning with adaptive CVaR constraints,” *Physics in Medicine and Biology*, 64(20), 205024, 2019.

16. Banu Kabakulak, **Z. Caner Taşkın**, Ali Emre Pusane, "Optimization-Based Decoding Algorithms for LDPC Convolutional Codes in Communication Systems," *IJSE Transactions*, 51(10), 1061-1074, 2019.
17. Pınar Dursun, **Z. Caner Taşkın**, İ. Kuban Altınel, "Using Branch-and-Price to Determine Optimal Treatment Plans for Volumetric Modulated Arc Therapy (VMAT)," *Computers & Operations Research*, 110, 1-17, 2019.
18. İ. Kuban Altınel, Necati Aras, Zeynep Şuvak, **Z. Caner Taşkın**, "Minimum Cost Noncrossing Flow Problem on Layered Networks," *Discrete Applied Mathematics*, 261, 2-21, 2019.
19. Oylum Şeker, Tınaz Ekim, **Z. Caner Taşkın**, "A Decomposition Approach to Solve the Selective Graph Coloring Problem in Some Perfect Graph Families," *Networks*, 73(3), 145-169, 2019.
20. Pınar Dursun, **Z. Caner Taşkın**, İ. Kuban Altınel, "The Determination of Optimal Treatment Plans for Volumetric Modulated Arc Therapy (VMAT)," *European Journal of Operational Research*, 272(1), 372-388, 2019.
21. Murat Güngör, A. Tamer Ünal, **Z. Caner Taşkın**, "A parallel machine lot-sizing and scheduling problem with a secondary resource and cumulative demand," *International Journal of Production Research*, 56(9), 3344-3357, 2018.
22. Betül Ahat, Tınaz Ekim, **Z. Caner Taşkın**, "Integer Programming Formulations and Benders Decomposition for Maximum Induced Matching Problem," *INFORMS Journal on Computing*, 30(1), 43-56, 2018.
23. **Z. Caner Taşkın**, J. Cole Smith, "Branch-Cut-Price Algorithms for Solving a Class of Search Problems on General Graphs," *Networks*, 70(1), 4-18, 2017.
24. Semra Ağralı, **Z. Caner Taşkın**, A. Tamer Ünal, "Employee Scheduling in Service Industries with Flexible Employee Availability and Demand," *Omega*, 66 (A), 159-169, 2017.
25. Yavuz Türkoğulları, **Z. Caner Taşkın**, Necati Aras, Kuban Altınel, "Optimal berth allocation, time-variant quay crane assignment and scheduling with crane setups in container terminals," *European Journal of Operational Research*, 254 (3), 985-1001, 2016.
26. **Z. Caner Taşkın**, Semra Ağralı, A. Tamer Ünal, Vahdet Belada, Filiz Gökten-Yılmaz, "Mathematical Programming-Based Sales and Operations Planning at Vestel Electronics," *INFORMS Journal on Applied Analytics*, 45 (4), 325-340, 2015.
27. Merve Gören, **Z. Caner Taşkın**, "A column generation approach for comparing delivery efficiency of different collimator technologies in IMRT treatment planning," *Physics in Medicine and Biology*, 60, 1989-2004, 2015.
28. Abdullah Sarıduman, Ali Emre Pusane, **Z. Caner Taşkın**, "An Integer Programming-Based Search Technique for Error-Prone Substructures of LDPC Codes," *AEU - International Journal of Electronics and Communications*, 68, 1097-1105, 2014.
29. Yavuz Türkoğulları, **Z. Caner Taşkın**, Necati Aras, Kuban Altınel, "Optimal berth allocation and time-invariant quay crane assignment in container terminals," *European Journal of Operational Research*, 235 (1), 88-101, 2014.
30. Merve Bodur, Tınaz Ekim, **Z. Caner Taşkın**, "Decomposition Algorithms for Solving the Minimum Weight Maximal Matching Problem," *Networks*, 62 (4), 273-287, 2013.
31. **Z. Caner Taşkın**, Mucahit Cevik, "Combinatorial Benders Cuts for Decomposing IMRT Fluence Maps Using Rectangular Apertures," *Computers & Operations Research*, 40 (9), 2178-2186, 2013.

32. Semra Ağralı, Joseph Geunes, **Z. Caner Taşkın**, “A Facility Location Model with Safety Stock Costs: Analysis of the Cost of Single-Sourcing Requirements,” *Journal of Global Optimization*, 54(3), 551-581, 2012.
33. **Z. Caner Taşkın**, Tınaz Ekim, “Integer Programming Formulations for the Minimum Weighted Maximal Matching Problem,” *Optimization Letters*, 6 (6), 1161-1171, 2012.
34. **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, “Mixed-Integer Programming Techniques for Decomposing IMRT Fluence Maps Using Rectangular Apertures,” *Annals of Operations Research*, 196(1), 799-818, 2012.
35. **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, James F. Dempsey, “Optimal Multileaf Collimator Leaf Sequencing in IMRT Treatment Planning,” *Operations Research*, 58(3), 674-690, 2010.
36. **Z. Caner Taşkın**, J. Cole Smith, Shabbir Ahmed, Andrew J. Schaefer, “Cutting Plane Algorithms for Solving a Stochastic Edge-Partition Problem,” *Discrete Optimization*, 6 (4), 420-435, 2009.
37. **Z. Caner Taşkın**, A. Tamer Ünal, “Tactical Level Planning in Float Glass Manufacturing with Co-Production, Random Yields and Substitutable Products,” *European Journal of Operational Research*, 199, 252-261, 2009.
38. Chunhua Men, H. Edwin Romeijn, **Z. Caner Taşkın**, James F. Dempsey, “An Exact Approach to Direct Aperture Optimization in IMRT Treatment Planning,” *Physics in Medicine and Biology*, 52, 7333–7352, 2007.

Book Chapters

1. Oylum Şeker, Pınar Heggernes, Tınaz Ekim, **Z. Caner Taşkın**, “Linear-time generation of random chordal graphs,” in *Lecture Notes in Computer Science*, Fotakis D., Pagourtzis A., Paschos V. (Editors) Algorithms and Complexity. CIAC vol 10236, 2017
2. Zehra Melis Teksan, Ali Tamer Ünal, **Z. Caner Taşkın**, “Integrated Production Planning, Shift Planning, and Detailed Scheduling in a Tissue Paper Manufacturer,” in *Models, Algorithms, and Technologies for Network Analysis*, Boris Goldengorin, Valery A. Kalyagin, Panos M. Pardalos (Editors), Springer, 2012.
3. **Z. Caner Taşkın**, “Benders Decomposition,” in *Encyclopedia of Operations Research and Management Science*, J. J. Cochran (Editor), Wiley, 2010.
4. J. Cole Smith, **Z. Caner Taşkın**, “A Tutorial Guide to Mixed-Integer Programming Models and Solution Techniques,” in *Optimization in Medicine and Biology*, G. J. Lim, E. K. Lee (Eds), Taylor and Francis, Auerbach Publications, 2008.

Refereed Conference Proceedings

1. Ömer Burak Öner, Tınaz Ekim, **Z. Caner Taşkın**, “Integer Programming Formulations and Cutting Plane Algorithms for the Maximum Selective Tree Problem” in *Proceedings of 21st Symposium on Experimental Algorithms (SEA 2023)*, 2023.
2. Pınar Dursun, **Z. Caner Taşkın**, İ. Kuban Altinel, “Mathematical Models for Optimal Volumetric Modulated Arc Therapy (VMAT) Treatment Planning,” in *Procedia Computer Science*, 100, 644-651, *Proceedings of The International Conference on Health and Social Care Information Systems and Technologies (HCist 2016)*, 2016.

3. Abdullah Sarıduman, Ali Emre Pusane, **Z. Caner Taşkın**, “A heuristic method for adaptive linear programming decoding,” in *Proceedings of Signal Processing and Communications Applications Conference (SIU 2016)*, 2016.
4. İ. Kuban Altınel, Yavuz B. Türkoğulları, **Z. Caner Taşkın**, Necati Aras, “Optimal Berth Allocation, Time-variant Quay Crane Assignment and Scheduling with Crane Setups in Container Terminals,” in *Proceedings of The 2015 International Conference on Logistics and Maritime Systems (LOGMS 2015)*, 2015.
5. Abdullah Sarıduman, Ali Emre Pusane, **Z. Caner Taşkın**, “Adaptive Linear Programming for Decoding LDPC Codes,” in *Proceedings of Signal Processing and Communications Applications Conference (SIU 2014)*, 2014.
6. Necati Aras, Yavuz Türkoğulları, **Z. Caner Taşkın**, Kuban Altınel, “Simultaneous Optimization of Berth Allocation, Quay Crane Assignment and Quay Crane Scheduling Problems in Container Terminals,” in *Proceedings of International Annual Conference of the German OR Society 2012 (OR 2012)*, 2012.
7. Z. Melis Teksan, **Z. Caner Taşkın**, "A Mixed Integer Programming Based Solution Methodology for a Scheduling Problem in Tissue Paper Manufacturing," in *13th International Conference on Project Management and Scheduling (PMS 2012)*, 2012
8. Abdullah Sarıduman, Ali Emre Pusane, **Z. Caner Taşkın**, “An Integer Programming Based Trapping Set Search Technique,” in *Proceedings of Signal Processing and Communications Applications Conference (SIU 2012)*, 2012.

Teaching Experience

- **Instructor**, Boğaziçi University
 - IE 201: Intermediate Programming (Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Fall 2018, Spring 2021, Fall 2022, Fall 2023)
 - IE 203: Operations Research II (Spring 2021, Spring 2022, Spring 2023)
 - IE 305: Operations Research II (Fall 2010, Fall 2011, Spring 2012, Spring 2013, Fall 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019)
 - IE 499: Enterprise Information Systems Modeling (Spring 2010, Spring 2012)
 - IE 515: Graphs and Network Flows (Spring 2011, Fall 2012, Fall 2014, Fall 2016, Fall 2018, Fall 2021, Fall 2023)
 - IE 613: Large-scale Programming (Fall 2015, Fall 2017, Fall 2020, Fall 2022)
- **Teaching Assistant**, University of Florida (Fall 2006, Fall 2007)
 - ESI 6314: Deterministic Methods of Operations Research

Academic Projects

- **TÜBİTAK 1001**: “Random Graph Generation” (Researcher) 10/2022 – 10/2025
- **TÜBİTAK 1501**: “Workforce Capacity Planning and Resource Management System for Airline Ground Operations - HYATT” (Researcher) 01/2023 – 12/2024

- **TÜBİTAK 1501:** “Smart Planning and Optimization System for Airline Ground Operations - HARVEST” (Researcher) 01/2022 – 12/2023
- **TÜBİTAK 1501:** “Smart Adaptive Capacity Planning and Optimization - ADAPTIVE” (Researcher) 03/2021 – 12/2022
- **TÜBİTAK 1501:** “Development of a Smart Demand Planning and Forecasting System - ATLANTIS” (Researcher) 01/2019 – 12/2020
- **Horizon 2020 / EMEurope:** “Cloud Your eBus” (Researcher) 01/2018 – 06/2020
- **TÜBİTAK 1001:** “Lot-Sizing Models for Co-Production Systems and Their Solution Algorithms” (Researcher) 01/2017 – 07/2019
- **TÜBİTAK 1001:** “Optimization-Based Decoding Algorithms for LDPC Convolutional Codes in Communication Systems” (PI) 10/2013 – 10/2016
- **TÜBİTAK 2221:** “Improving Blood Supply Chains” (PI) 06/2014 – 09/2014
- **TÜBİTAK 1501:** “Vehicle Maintenance Planning System ABAPS” (Researcher) 07/2015 – 12/2017
- **TÜBİTAK 1501:** “Development of a Distributed Workforce Planning and Optimization System (ICRON WFM)” (Researcher) 10/2012 – 10/2014
- **TÜBİTAK 1501:** “Business-Oriented Mathematical Modeling: Supply Chain Optimization Application” (Researcher) 11/2010 – 10/2012
- **Boğaziçi University BAP:** “Optimization-Based Algorithms to Design QC-LDPC Codes without Small Harmful Structures in Digital Communication Systems” (PI) 07/2018 – 07/2019
- **Boğaziçi University BAP:** “The Determination of Optimal Treatment Plans for Volumetric Modulated Arc Therapy (VMAT)” (Researcher) 02/2016 – 02/2018
- **Boğaziçi University BAP:** “The Selective Graph Coloring Problem” (Co-PI) 07/2016 – 07/2018
- **Boğaziçi University BAP:** “A Novel Decomposition Algorithm for Large-Scale Linear and Integer Programming” (PI) 12/2011 – 03/2014
- **Boğaziçi University BAP:** “Design and Development of an Object-Oriented Mathematical Modeling System” (PI) 03/2010 – 03/2011
- **IBM Open Collaborative Research Initiative:** “Integrated Optimization of Container Terminals” (Researcher) 11/2011 – 11/2012

Industry Projects

- **Unilever:** “Blending and Purchasing Optimization System” (Academic Advisor) 07/2021 – 06/2022
- **ICRON Technologies:** “Development of a Vehicle Maintenance Planning System” (Academic Advisor) 07/2015 – 12/2017
- **Turkish Technic:** “Maintenance Cards Interval Optimization” (Academic Advisor) 11/2017 – 05/2018
- **Enerjisa:** “Optimization of Energy Generation in Hydroelectric Power Plants” (Academic Advisor) 12/2016 – 04/2017

- **Vestel Electronics:** “Development of a Decision Support System for the Capable-to-Promise Process” (Academic Advisor) 01/2016 – 11/2016
- **ICRON Technologies:** “Development of a Vehicle Maintenance Planning System” (Academic Advisor) 07/2015 – 12/2017
- **Trakya Cam:** “Development of an Optimization-Based Decision Support System for Strategic Planning” (Academic Advisor) 03/2016 – 07/2016
- **Borusan Logistics:** “Design and Development of a Decision Support System for Milkrun Route Optimization” (Academic Advisor) 05/2015 – 05/2016
- **Trakya Cam:** “Design and Implementation of an Optimization Model for Sales & Operations Planning” (Academic Advisor) 05/2015 – 02/2017
- **Digipolis:** “Development of an Optimization-Based Decision Support System for Workforce Planning” (Academic Advisor) 03/2014 – 01/2015
- **ICRON Technologies:** “Extensions on a Distributed Workforce Planning and Optimization System” (Academic Advisor) 01/2013 – 03/2015
- **ASML:** “Design and Development of Scenario Planning and Optimization Tool (SPOT)” (Academic Advisor) 05/2012 – 06/2014
- **ICRON Technologies:** “Extending an Object-Oriented Mathematical Modeling System to Large-Scale Optimization” (Academic Advisor) 01/2012 – 03/2013
- **SMIT Transformers:** “Building an Optimization-Based Decision Support System for Winding Planning Process” (Academic Advisor) 04/2011 – 02/2012
- **ICRON Technologies:** “Smart Change Distributed Planning” (Academic Advisor) 01/2010 – 01/2012
- **Vestel Electronics:** “Sales and Operations Planning Optimization” (Academic Advisor) 12/2010 – 11/2011

Ph.D. Students

- M. Aslı Aydın, “Decentralized Decomposition Methods for Block Angular Linear and Integer Programming Problems,” (2016)
- Banu Kabakulak, “Design and Analysis of Communication Systems with High Error Correction Capability Through Optimization” (2018)
- Oylum Şeker (co-advised with Tınaz Ekim), “A Decomposition Approach to Solve the Selective Graph Coloring Problem” (2018)
- Emel Şeyma Küçükaşçı (co-advised with Mustafa Baydoğan), “Mathematical Programming and Statistical Learning Approaches for Multiple Instance Learning” (2018)
- Pınar Dursun (co-advised with İ. Kuban Altınel), “The Determination of Optimum Radiation Therapy Plans” (2019)
- Abdullah Sarıduman (co-advised with A. Emre Pusane), “Design of LDPC Codes with Low Error Floor” (2020)
- Serkan Kalay, “Campaign Planning Under Sequence Dependent Family Setups and Co-production in Process Industry” (2020)
- Eyüp Ensar Işık (co-advised with Semra Ağralı), “Lot Sizing and Scheduling in Co-production Systems” (expected graduation: 2025)

M.S. Students

- Tuğba Atmaca (co-advised with A. Tamer Ünal), “Development of an Object-Oriented Mathematical Modeling System,” (2011)
- Mücahit Çevik, “Optimal Decomposition of IMRT Fluence Maps Using Combinatorial Benders Cuts,” (2011)
- Abdullah Sarıduman (co-advised with A. Emre Pusane), “Integer Programming Based Analysis of Decoding Failures for LDPC Codes,” (2013)
- Merve Gören, “A Column Generation Approach for Evaluating Delivery Efficiencies of Collimator Technologies in IMRT Treatment Planning,” (2014)
- Engin Emir, “Effect of Bucket Size on Lead Time Discretization Error in Multi-Level Production Planning Systems,” (2015)
- Beste Başçiftçi, “A Stochastic Programming Approach for Optimizing Cryoprecipitate Collection Schedules,” (2015)
- Betül Ahat (co-advised with Tınaz Ekim), “Integer Programming Formulations and Benders Decomposition for Maximum Induced Matching Problem,” (2016)
- Fulya Terzi (co-advised with Semra Ağralı), “Mathematical Programming Approaches for a Generation Expansion Planning Problem in a Carbon-Constrained Environment” (2016)
- A. Çağrı Düzgün (co-advised with Tınaz Ekim), “The Maximum Clique Problem in Perfect Graphs” (2017)
- Bahadır Pamuk (co-advised with Semra Ağralı), “Lot-Sizing Models and Solution Algorithms for Co-Production Systems” (2018)
- Ömer Burak Onar (co-advised with Tınaz Ekim), “Integer Programming Formulations and Cutting Plane Algorithms for the Maximum Selective Tree Problem” (2022)
- Yahya Umut Bütün (co-advised with Tamer Ünal), “Air cargo revenue management spot allocation problem” (2023)
- Ali Erdem Banak (co-advised with Tınaz Ekim), “Constructing edge extremal triangle-free graphs with bounded maximum degree and matching number using integer programming” (2023)

Presentations

- **Z. Caner Taşkın**, Z. Melis Teksan, Cavide Tekin, “A Cloud-Based Decision Support System for Optimal Tea Purchasing and Blending,” *INFORMS Annual Meeting*, October 2021.
- **Z. Caner Taşkın**, “Large Scale Optimization and Benders Decomposition,” invited online seminar at *KLM Royal Dutch Airlines*, October 2020.
- Betül Ahat, Tınaz Ekim, **Z. Caner Taşkın**, “Integer Programming Formulations and Benders Decomposition for Maximum Induced Matching Problem,” invited seminar at *Erasmus University*, Rotterdam, The Netherlands, February 2020.
- Bahadır Pamuk, Semra Ağralı, **Z. Caner Taşkın**, “A Lot-Sizing Problem in Deliberated and Controlled Co-Production Systems” in *EURO 2018*, Valencia, Spain, July 2018.
- Betül Ahat, Tınaz Ekim, **Z. Caner Taşkın**, “Integer Programming Formulations and Benders Decomposition for Maximum Induced Matching Problem,” in *OR2016 – Annual International Conference of the German Operations Research Society*, Hamburg, Germany, September 2016

- **Z. Caner Taşkın**, Semra Ağralı, A. Tamer Ünal, Vahdet Belada, Filiz Gökten-Yılmaz, "Mathematical Programming-Based Sales and Operations Planning at Vestel Electronics," in *EURO 2015*, Glasgow, UK, July 2015.
- Merve Bodur, Tınaz Ekim, **Z. Caner Taşkın**, "Decomposition Algorithms for Solving the Minimum Weight Maximal Matching Problem," in *EURO 2013*, Rome, Italy, June 2013.
- Merve Bodur, Tınaz Ekim, **Z. Caner Taşkın**, "Decomposition Algorithms for Solving the Minimum Weight Maximal Matching Problem," in *IIE Annual Conference and Expo 2012*, Orlando, FL, May 2012.
- **Z. Caner Taşkın**, Mucahit Cevik, "Combinatorial Benders Cuts for Decomposing IMRT Fluence Maps Using Rectangular Apertures," in *IIE Annual Conference and Expo 2011*, Reno, NV, May 2011.
- **Z. Caner Taşkın**, J. Cole Smith, "A Branch-Cut-Price Algorithm for Solving a Class of Search Problems on General Graphs," in *IIE Annual Conference and Expo 2010*, Cancun, Mexico, June 2010.
- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, James F. Dempsey, "Optimal Multi Collimator Leaf Sequencing in IMRT Treatment Planning," in *CORS-INFORMS International Meeting*, Toronto, Canada, June 2009.
- **Z. Caner Taşkın**, A. Tamer Ünal, "Tactical Level Planning in Float Glass Manufacturing with Co-Production, Random Yields and Substitutable Products," in *IIE Annual Conference and Expo 2009*, Miami, FL, May 2009.
- **Z. Caner Taşkın**, J. Cole Smith, Shabbir Ahmed, Andrew J. Schaefer, "Cutting Plane Algorithms for Solving a Robust Edge Partition Problem," in *INFORMS Computing Society Conference*, Charleston, SC, January 2009.
- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, "Mixed-Integer Programming Techniques for Decomposing IMRT Fluence Maps Using Rectangular Apertures," *INFORMS Computing Society Conference*, Charleston, SC, January 2009.
- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, James F. Dempsey, "Optimal Multi Collimator Leaf Sequencing in IMRT Treatment Planning," in *INFORMS Annual Meeting*, Washington, D.C., October 2008.
- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, "Mixed-Integer Programming Techniques for Decomposing IMRT Fluence Maps Using Rectangular Apertures," in *INFORMS Annual Meeting*, Washington, D.C., October 2008.
- Semra Ağralı, Joseph Geunes, **Z. Caner Taşkın**, "A Facility Location Model with Safety Stock Costs: Analysis of the Cost of Single-sourcing Requirements," in *INFORMS Annual Meeting*, Washington, D.C., October 2008.
- **Z. Caner Taşkın**, J. Cole Smith, Shabbir Ahmed, Andrew J. Schaefer, "Cutting Plane Algorithms for Solving a Robust Edge Partition Problem," in *INFORMS Optimization Society Conference*, Atlanta, GA, March 2008.
- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, James F. Dempsey, "An Exact Algorithm for the Minimum Cardinality Leaf Sequence Problem in IMRT," in *INFORMS Annual Meeting*, Seattle, WA, November 2007.
- **Z. Caner Taşkın**, J. Cole Smith, Shabbir Ahmed, Andrew J. Schaefer, "A Cutting Plane Algorithm for Solving a Robust Edge Partition Problem," in *INFORMS Annual Meeting*, Seattle, WA, November 2007.

- **Z. Caner Taşkın**, J. Cole Smith, H. Edwin Romeijn, James F. Dempsey, “New Approaches to the Leaf Sequencing Problem in IMRT Treatment Planning,” in *INFORMS Annual Meeting*, Pittsburgh, PA, November 2006.
- Chunhua Men, H. Edwin Romeijn, **Z. Caner Taşkın**, James F. Dempsey, “Incorporating Delivery Efficiency into Radiotherapy Treatment Plan Optimization,” in *INFORMS Annual Meeting*, Pittsburgh, PA, November 2006.
- **Z. Caner Taşkın**, N. Serhat Aybat, “Analysis of a Two-Stage Supply Chain with Effort-Dependent Markovian Demand Structure,” in *YA/EM 2005*, İstanbul, Turkey, July 2005.
- Ilgaz Sungur, **Z. Caner Taşkın**, A. Tamer Ünal, İ. Kuban Altinel, “Development of an Object Oriented and Visual Mathematical Modeling and Optimization Environment,” in *EURO/INFORMS Joint International Meeting*, İstanbul, Turkey, July 2003.

Professional Activities

- Vice Director at Boğaziçi University Institute of Graduate Studies in Science and Engineering (July 2023 – March 2024)
- Executive Committee Member at Boğaziçi University Institute of Graduate Studies in Science and Engineering (September 2021 - March 2024)
- Organizing Committee Member for YA/EM 2021 – 40th Congress on Operations Research / Industrial Engineering (July 2021)
- Vice Chair at Boğaziçi University Department of Industrial Engineering (2018 – 2019)
- Faculty Advisor for Boğaziçi University IIE Student Chapter (2015 – 2017)
- Organizing Committee Member for WG 2016 – 42nd International Workshop on Graph-Theoretic Concepts in Computer Science (July 2016)
- Refereed papers for *Operations Research*, *IIE Transactions*, *INFORMS Journal on Computing*, *Networks*, *European Journal of Operational Research*, *Computational Optimization and Applications*, *Discrete Applied Mathematics*, *Computers and Operations Research*, *Journal of Scheduling*, *OR Spectrum*, *Journal of the Operational Research Society*, *4OR*, *OMEGA*, *Optimization Methods and Software*, *Optimization Letters*
- Session Chair for IIE Annual Conference and Expo 2009
- Session Chair for INFORMS Annual Meeting (Fall 2008)
- Member of ICS: INFORMS Computing Society (2008 -)
- Member of OPT: INFORMS Optimization Society (2007 -)
- Member of INFORMS (2006 -)
- Member of EURO: Association of European Operational Research Societies (2003 -)