Z. Caner Taşkın

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Department of Industrial Engineering, Boğaziçi University
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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," *IISE 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," *IISE 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 Altınel, "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 Chainge 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 Altınel, "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 - present)
- Executive Committee Member at Boğaziçi University Institute of Graduate Studies in Science and Engineering (September 2021 - present)
- 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 -)