

## David Bergman

Associate Professor

Operations and Information Management Department  
School of Business, University of Connecticut

(Updated February 1, 2021)

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CONTACT INFORMATION	Phone: 914-473-6100 Email: <a href="mailto:david.bergman@uconn.edu">david.bergman@uconn.edu</a> Website: <a href="http://www.business.uconn.edu/person/david-bergman/">http://www.business.uconn.edu/person/david-bergman/</a>																
PROFESSIONAL EXPERIENCE	<p><b>School of Business, University of Connecticut</b> (UConn), Storrs, CT</p> <p><b>Department of Operations and Information Management</b></p> <table><tr><td>Associate Professor</td><td>Aug 2019 - Present</td></tr><tr><td>Assistant Professor</td><td>Aug 2014 - Jul 2019</td></tr><tr><td>Visiting Assistant Professor</td><td>Aug 2013 - Jul 2014</td></tr></table> <p><b>McKinsey &amp; Company</b>, Waltham, MA</p> <p><b>McKinsey Analytics, Public and Social Sector Analytics</b></p> <table><tr><td>External Advisor</td><td>Oct 2017 - Present</td></tr><tr><td>Data Scientist Specialist</td><td>Jan 2017 - Jul 2017</td></tr><tr><td>Knowledge Specialist</td><td>Aug 2016 - Dec 2016</td></tr></table> <p><b>Mitsubishi Electric Research Labs</b>, Cambridge, MA</p> <p><b>Data Analytics</b></p> <table><tr><td>External Consultant</td><td>Sep 2014 - Present</td></tr><tr><td>Visiting Researcher</td><td>Jun 2014 - Aug 2014</td></tr></table>	Associate Professor	Aug 2019 - Present	Assistant Professor	Aug 2014 - Jul 2019	Visiting Assistant Professor	Aug 2013 - Jul 2014	External Advisor	Oct 2017 - Present	Data Scientist Specialist	Jan 2017 - Jul 2017	Knowledge Specialist	Aug 2016 - Dec 2016	External Consultant	Sep 2014 - Present	Visiting Researcher	Jun 2014 - Aug 2014
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EDUCATION	<p><b>Tepper School of Business, Carnegie Mellon University</b> (CMU), Pittsburgh, PA</p> <p>Ph.D., <a href="#">Algorithms, Combinatorics, and Optimization</a> May 2013</p> <ul style="list-style-type: none"><li>Focus in <a href="#">Operations Research</a></li><li>Dissertation: <i>New Techniques for Discrete Optimization</i></li><li>Committee Members: <a href="#">John Hooker</a> (co-advisor), <a href="#">Willem-Jan van Hoeve</a> (co-advisor), <a href="#">R. Ravi</a>, <a href="#">Tuomas Sandholm</a></li></ul> <p>M.S., <a href="#">Algorithms, Combinatorics, and Optimization</a> May 2010</p> <p><b>Stony Brook University</b>, Stony Brook, NY</p> <p>M.S., <a href="#">Applied Mathematics &amp; Statistics</a> May 2008</p> <ul style="list-style-type: none"><li>Concentration in <a href="#">Operations Research</a></li></ul> <p>B.S., <a href="#">Mathematics</a> and <a href="#">Applied Mathematics &amp; Statistics</a> May 2007</p>																
PROFESSIONAL INTERESTS	Operations research, management science, discrete optimization, data science, business analytics, integration of analytics techniques, sports analytics																
PROFESSIONAL LICENSES	<b>Certified Analytics Professional</b>																

**McKinsey & Company**

Aug 2016 - Present

Designing algorithms for large-scale automated decision making

- *Crop planning*: Implemented an optimization model for planning inventory for annual crop plan
- *COVID Testing Tool*: Created a tool for optimizing scarce testing resources to different portions of the population to minimize  $R_t$  rate across multiple segments of the US population
- *Public Housing Authority Property Optimization*: Designed and implemented an optimization algorithm and tool to assist a housing authority determine a plan for redevelopment for their portfolio of affordable housing in the face of increased funding pressure and quickly deteriorating properties
- *Bank Branch Optimization*: Improved optimization model for determining branch network opening and closing to maximize expected revenue, leading to orders-of-magnitude reduction in both solution time and memory consumption
- *Military Training Scheduling*: Built custom tool for scheduling all training activities and asset transfers for an entire military force, increasing force readiness from 60% to near 100%
- *Delivery Service Time Series Modeling*: Created predictive models for major parcel delivery client to uncover market trends and align long-term plans
- *Airline Crew Scheduling*: Constructed optimization algorithm for pilot crew scheduling for a \$2 billion airline to size impact of upcoming regulations on pilot working hours
- *Military Procurement Modeling*: Designed optimization algorithm to optimize over a billion dollars of procurement decisions
- *University Grant Funding*: Integrated predictive and prescriptive analytics models for allocation of grant funding for a large public university to optimize yield and quality of incoming class
- *Chemical Plant Simulation and Optimization Modeling*: Generated simulation model for large chemical plant to understand bottleneck in production process and an optimization algorithm to maximize plan throughput
- *Water Network Design*: Assisted with implementing an optimization model to measure cost-saving potential from consolidating treatment plants

**Mitsubishi Electric Research Laboratories**

Sep 2014 - Present

Developing optimization algorithms for large multinational electronics and electrical equipment manufacturing company for various service lines and products

**Westchester Management, LLC**

Jul 2010 - Present

Creating and maintaining information systems for residential real estate company

**BlueVoyant**

Jan 2018 - Mar 2018

Constructed advanced analytics models for cybersecurity risk assessment

**Additech, Inc**

Jul 2015 - Jul 2016

Integrating advanced data science and optimization algorithms to select expansion locations to maximize expected revenue for at-the-pump gasoline additive company

HONORS,  
GRANTS,  
AND AWARDS

**2020 DraftKings Daily Fantasy Sports World Champion** December 2020

Won fantasy sports world championship competition with top prize of \$2.5M.

**UConn School of Business Research Award** May 2020

Received annual award for best researcher over five-year span.

**Optimizing Team Composition: Theoretical and Computational Advancements** Nov 2018 - Oct 2020

Army Research Institute for the Behavioral and Social Sciences (ARI), Solicitation number: W911NF-18-S-0001

Tannenbaum, S. I., Mathieu, J. E., and Bergman, D.

**UConn-AAUP Teaching Excellence: Early Career Award** April 2018

Annual university-wide teaching award given by the University of Connecticut's Chapter of The American Association of University Professors, Inc., honoring teaching excellence for faculty with fewer than 6 years of teaching experience.

**OPIM Department Summer Enhancement Grant** August 2015

Summer research grant awarded by OPIM department, for research on multiobjective optimization

**ACP Doctoral Research Award** Sep 2014

Annual research award given by the Association for Constraint Programming for the best doctoral dissertation in the area of constraint programming

**UConn Curriculum Development** May 2014

\$11,000.00 awarded for the development of undergraduate course 3510 - *Business Data Analytics*

**CMU Graduate Student Teaching Award** Apr 2012

Annual university-wide award recognizing best graduate student teacher at Carnegie Mellon University

**First Place, CMU McKinsey Case Competition** Oct 2011

Annual team-based case competition administered in the Tepper School of Business at Carnegie Mellon University

**Egon Balas Award** Mar 2010

Annual award recognizing best student paper in the area of Operations Research or Algorithms, Combinatorics, and Optimization at Carnegie Mellon University

**William Larimer Mellon Fellowship** Feb 2008

Three-year fellowship awarded for doctoral work in the Tepper School of Business at Carnegie Mellon University

EDITORIAL  
ROLES

**Editor** for *Constraints*

BOOKS

**D. Bergman**, A. A. Cire, W.-J. van Hoeve, and J.N. Hooker. Decision Diagrams for Optimization. Springer-Verlag New York, 2016.

PATENTS	<p>Arvind U Raghunathan, <b>David Bergman</b>, Nikolaos V Sahinidis, Systems and Methods for Resource Allocation for Management Systems, Pat# 10,362,139 (Granted)</p> <p>Arvind U Raghunathan, <b>David Bergman</b>, Thiago Serra Azevedo Silva, Systems and Methods for Joint Control of Multi-Modal Transportation Networks. Filed: Oct 17, 2017 as 15/785,540 (Filed)</p> <p>Arvind U Raghunathan, <b>David Bergman</b>, Hiroyuki Hashimoto, Shingo Kobori, System and Method for Scheduling Multiple Modes of Transportation. Filed: Dec 6, 2018 as 62/689,064 (Filed)</p> <p>Thiago Serra, Arvind U Raghunathan, <b>David Bergman</b>, System and Method for Scheduling Multiple Modes of Transport with Incomplete Information. Filed: Feb 25, 2019 as 16/284,229 (Filed)</p> <p>Arvind U Raghunathan, <b>David Bergman</b>, Hiroyuki Hashimoto, System and Method for Scheduling Electric Generators using Decision Diagrams. Filed: Mar 26, 2019 as 16/364,471 (Filed)</p>
ARTICLES UNDER REVIEW	<p><b>D. Bergman</b>, C.H. Cardonha., and S. Mehrani. Optimization Algorithms for the Bin Packing Problem with Minimum Color Fragmentation.</p> <p><b>D. Bergman</b>, T. Huang, and J. Mathieu. Data-Driven Optimization for Team Formation.</p> <p>A.U. Raghunathan, <b>D. Bergman</b>, J.N. Hooker, T. Serra and S. Kobori. Seamless Multimodal Transportation Scheduling. <i>INFORMS Journal on Computing</i>, Major Revision.</p> <p>Q. Cappart, <b>D. Bergman</b>, L.M. Rousseau, and I. Prémont-Schwarz. Learning Dynamic Programming Approximations for Combinatorial Optimization Problems.</p> <p><b>D. Bergman</b>, C.H. Cardonha, J.P. Imbrogno, and L. Lozano. Optimization for Maximizing the Expected Value of Order Statistics. <i>Management Science</i>, Reject and Resubmit.</p> <p><b>D. Bergman</b>, S. Bhattacharjee, R. Day, and M. Emadikhiav. Designing a Sustainable Backhaul Framework using Telematics Sensor Data and Analytics.</p> <p>H. Atef Yekta, <b>D. Bergman</b>, and R. Day. On Finding Stable and Efficient Solutions for the Team Formation Problem.</p> <p>M. Goyal, <b>D. Bergman</b>, and P. S. Duggirala. Generating Longest Counterexample: On the Cross-roads of Mixed Integer Linear Programming and SMT.</p>
REFEREED JOURNAL PUBLICATIONS	<p>T. Serra, T. Huang, A.U. Raghunathan, and <b>D. Bergman</b>. Template-based Minor Embedding for Adiabatic Quantum Optimization. <i>INFORMS Journal on Computing</i>, Accepted.</p> <p><b>D. Bergman</b>, M. Bodur, C.H. Cardonha, and A.A. Cire. Network Models for Multiobjective Discrete Optimization. <i>INFORMS Journal on Computing</i>. Accepted.</p> <p><b>D. Bergman</b>, T. Huang, P. Brooks, A. Lodi, and A.U. Raghunathan. JANOS: An Integrated Predictive and Prescriptive Modeling Framework. <i>INFORMS Journal on Computing</i>, Accepted.</p> <p>M. Emadikhiav, <b>D. Bergman</b>, and R. Day. Consistent Routing with Simultaneous Pickups and Deliveries. <i>Production and Operations Management</i>, Accepted.</p>

L.S. Lozano, **D. Bergman**, and J.C. Smith. On the Consistent Path Problem. *Operations Research*, Accepted.

**D. Bergman** and L.S. Lozano. Decision Diagram Decomposition for Quadratically Constrained Binary Optimization. *INFORMS Journal on Computing*, Accepted.

T. Huang, **D. Bergman**, and R. Gopal. Predictive and Prescriptive Analytics for Location Selection of Add-on Retail Products. *Production and Operations Management*, to appear.

**D. Bergman**. An Exact Algorithm for the Quadratic Multiknapsack Problem with an Application to Event Seating. *INFORMS Journal on Computing*, to appear.

**D. Bergman**, C.H. Cardonha, A.A. Cire, and A. Raghunathan. On the Minimum Chordal Completion Polytope. *Operations Research*, to appear.

**D. Bergman** and A.A. Cire. Discrete Nonlinear Optimization by State-Space Decompositions. *Management Science*, to appear.

**D. Bergman** and J.P. Imbrogno. Surviving an NFL Survival Pool. *Operations Research*, volume 65(4), pages 1343-1354, 2017.

**D. Bergman**, A.A. Cire, W.-J. van Hoeve, and J.N. Hooker. Discrete Optimization with Decision Diagrams. *INFORMS Journal on Computing*, volume 18(1), pages 47-66, 2016.

**D. Bergman** and A.A. Cire. Theoretical Insights and Algorithmic Tools for Decision Diagram-Based Optimization. *Constraints*, volume 21(4), pages 533-556, 2016.

**D. Bergman**, A.A. Cire, and W.-J. van Hoeve. Lagrangian Bounds from Decision Diagrams. *Constraints*, volume 20(3), pages 346-361, 2015.

**D. Bergman**, A. A. Cire, W.-J. van Hoeve, and J.N. Hooker. Optimization Bounds from Binary Decision Diagrams. *INFORMS Journal on Computing*, volume 26(2), pages 253-268, 2014.

**D. Bergman** and J. N. Hooker, Graph coloring inequalities from all-different systems. *Constraints*, volume 19(4) pages 404-433, 2014.

**D. Bergman**, A.A. Cire and W.-J. van Hoeve. MDD Propagation for Sequence Constraints. *Journal of Artificial Intelligence Research*, volume 50, pages 697-722, 2014.

**D. Bergman**, A.A. Cire, W.-J. van Hoeve, and T. Yunes. BDD-Based Heuristics for Binary Optimization. *Journal of Heuristics*, volume 20(2), pages 211-234, 2014.

REFEREED  
CONFERENCE  
PUBLICATIONS<sup>1</sup>

T. Serra, A.U. Raghunathan, **D. Bergman**, J.N. Hooker, and S. Kobori. Last-Mile Scheduling Under Uncertainty. *CPAIOR 2019*, accepted.

**D. Bergman**, C.H. Cardonha, and S. Mehrani. Binary Decision Diagrams for Bin Packing with Minimum Color Fragmentation. *CPAIOR 2019*, accepted.

Q. Cappart, E. Goutierre, **D. Bergman**, and L.M. Rousseau. Improving Optimization Bounds using Machine Learning: Decision Diagrams meet Deep Reinforcement Learning. *Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI 2019)*, accepted, 2018.

A.U. Raghunathan, **D. Bergman**, J.N. Hooker, T. Serra and S. Kobori. The Integrated Last-Mile Transportation Problem (ILMTP). *Proceedings of the*

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<sup>1</sup>Note that refereed conference proceedings are the preferred academic outlet in computer science

*International Conference on Automated Planning and Scheduling (ICAPS 2018)*, pages 388-398, 2018.

**D. Bergman** and A.A. Cire. On Finding the Optimal Relaxed Decision Diagram. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2017)*, volume 10335 of Lecture Notes in Computer Science, pages 41-50, 2017.

**D. Bergman** and A.A. Cire. Multiobjective Optimization by Decision Diagrams. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP 2016)*, volume 9892 of Lecture Notes in Computer Science, pages 86-95, 2016.

**D. Bergman** and A.A. Cire. Decomposition Based on Decision Diagrams. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2016)*, volume 9676 of Lecture Notes in Computer Science, pages 45-54, 2016.

**D. Bergman**, A.A. Cire, and W.-J van Hoeve. Improved Constraint Propagation via Lagrangian Decomposition. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP 2015)*, volume 9255 of Lecture Notes in Computer Science, pages 30-38, 2015.

**D. Bergman** and A. Raghunathan. A Benders Approach to the Minimum Chordal Completion Problem. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2015)*, volume 9075 of Lecture Notes in Computer Science, pages 47-64, 2015.

**D. Bergman**, A.A. Cire, A. Sabharwal, H. Samulowitz, W.-J van Hoeve. DDX10: Parallel Combinatorial Optimization with Decision Diagrams. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2014)*, volume 8451 of Lecture Notes in Computer Science, pages 351-367, 2014.

**D. Bergman**, A.A. Cire, W.-J. van Hoeve, and J.N. Hooker. Variable Ordering for the Application of BDDs to the Maximum Independent Set Problem. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2012)*, volume 7298 of Lecture Notes in Computer Science, pages 34-49, 2012.

**D. Bergman** and J.N. Hooker. Graph Coloring Facets from All-Different Systems. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2012)*, volume 7298 of Lecture Notes in Computer Science, pages 50-65, 2012.

**D. Bergman**, W.-J. van Hoeve, and J.N. Hooker. Manipulating MDD Relaxations for Combinatorial Optimization. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2011)*, volume 6697 of Lecture Notes in Computer Science, pages 20-35, 2011.

EXTENDED  
ABSTRACTS

T. Huang, **D. Bergman**, and R. Gopal [Abstract]. Predictive and Prescriptive Analytics for Location Selection of Add-on Retail Products. *2019 INFORMS Workshop on Data Mining and Decision Analytics*.

**D. Bergman**. New Techniques for Discrete Optimization [Extended Dissertation Abstract]. *Constraints*, volume 20(4), pages 486-487, 2015.

**D. Bergman**, A. A. Cire, W.-J. van Hoeve, and J.N. Hooker. Discrete Optimization with Decision Diagrams [Extended Abstract]. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP 2015)* , to appear.

**D. Bergman**, A.A. Cire and W.-J. van Hoeve. MDD Propagation for Sequence Constraints [Extended Abstract]. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP 2015)* , to appear.

**D. Bergman**, A.A. Cire, and W.-J van Hoeve. Lagrangian Bounds from Decision Diagrams [Extended Abstract - Paper Selected for *Journal Fast Track*]. *Proceedings of the International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR 2015)* , volume 9075 of Lecture Notes in Computer Science, page XIV, 2015.

**D. Bergman**, A.A. Cire, W.-J van Hoeve, and J.N. Hooker. Optimization Bounds from Binary Decision Diagrams [Extended Abstract]. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP 2014)* , volume 8656 of Lecture Notes in Computer Science, pages 903-907, 2014.

CONFERENCE /  
INVITED TALKS

### **Optimization and Machine Learning**

- Guest Lecture—Questrom School of Business, Boston University. Boston, MA. January 2020.

### **On the Consistent Path Problem**

- INFORMS Annual Meeting 2019. Seattle, WA. Oct 2019.

### **Academia versus Industry – Which Career Path is Right For You**

- Carnegie Mellon University—Student INFORMS Chapter Invited Talk. March 2019.

### **Decision diagram decomposition with an application to multimodal transportation scheduling**

- Leeds School of Business University of Colorado Boulder—Invited Seminar. Feb 2019.

### **Computational optimization: concepts, trends, and modern applications**

- School of Business, University of Connecticut—School Wide Research Seminar. Jan 2018.

### **Discrete Nonlinear Optimization by State-Space Decompositions**

- University of Cincinnati Operations, Business Analytics, and Information Systems Seminar Series, Cincinnati, Ohio, March 2018.
- Cirrelt Seminar, Montreal, Canada, January 2018.
- INFORMS Annual Meeting 2017. Houston, TX. October 2017.
- Applied Mathematics and Statistics Department Seminar, Johns Hopkins University. October 2017. [Click to access video on YouTube.](#)
- 2017 Mixed Integer Programming Workshop. Montreal, Canada. June 2017.
- Clemson University Department Seminar. Clemson, SC. Jan 2017.

### **Decision Diagram Decomposition**

- ISAIM 2016 - The International Symposium on Artificial Intelligence and Mathematics. Ft. Lauderdale, FL. Jan 2016.
- INFORMS Annual Meeting 2015. Philadelphia, PA. Nov 2015.

#### **MDD Propagation for Sequence Constraints**

- 21st International Conference on Principles and Practice of Constraint Programming. Cork, Ireland. Sept. 2015.

#### **A Benders Approach to the Minimum Chordal Completion Problem**

- 12th International Conference on Integration of Artificial Intelligence (AI) and Operations Research (OR) techniques in Constraint Programming (CPAIOR 2015). Barcelona, Spain. May 2015.

#### **Computational Techniques for Incentive Auctions**

- INFORMS Annual Meeting 2014. San Francisco, CA. Nov 2014.

#### **Solving Binary Quadratic Programming with Decision Diagrams**

- CORS/INFORMS Annual Meeting, 2015. Montreal, Canada. Jun 2015.
- INFORMS Annual Meeting 2014. San Francisco, CA. Nov 2014.

#### **New Techniques for Discrete Optimization**

- 20th International Conference on Principles and Practice of Constraint Programming. Lyon, France. Sept. 2014.

#### **Parallel Combinatorial Optimization with Decision Diagrams**

- 11th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems. Cork, Ireland. May 2014.

#### **Decision Diagrams for Discrete Optimization**

- College of Business Department Seminar, Stony Brook University. March 2017.
- 15th Haifa Workshop on Graph Theory, Combinatorics, and Algorithms. Haifa, Israel, Jun 2015.
- CMU Chemical Engineering Department Seminar. Pittsburgh, PA. Nov 2014.
- INFORMS Annual Meeting 2013. Minneapolis, MN. Oct 2013.
- Operations and Information Management Department Seminar Series, University of Connecticut. Storrs, CT. Apr 2013.
- Department of Applied Mathematics and Statistics Seminar Series, Johns Hopkins University. Baltimore, MD. Mar 2013.
- Management Department Seminar Series, University of Iowa. Iowa City, IA. Feb 2012.
- BAE Systems Seminar. Burlington, MA. Dec 2012.

#### **Bounds from Multiple Binary Decision Diagrams**

- INFORMS Annual Meeting 2012. Phoenix, AZ. Oct 2012.



### **Variable Ordering for the Application of Binary Decision Diagrams to the Maximum Independent Set Problem**

- 9th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems. Nantes, France. May 2012.

### **Manipulating MDD Relaxations for Combinatorial Optimization**

- 8th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems. Berlin, Germany. May 2011.
- INFORMS Annual Meeting 2011. Charlotte, NC. Nov 2011.
- Algorithms Seminar, Stony Brook University. Stony Brook, NY. March 2010.

### **Facets for All-Different Systems**

- Doctoral Programme, 16th International Conference on Principles and Practice of Constraint Programming. St. Andrews, Scotland. Sep 2010.

### **Graph Coloring Cuts for All-Different Systems**

- 54th Annual conference of the Canadian Operational Research Society and the 10th International Conference on Multiple Objective Programming and Goal Programming. Niagara Falls, Canada. Jun 2012.
- 12th Annual Modeling and Optimization: Theory and Applications Conference. Bethlehem, PA. Jul 2012.

### **A Branch and Bound Algorithm Based on Approximate Binary Decision Diagrams.**

- Cirrelt Seminar, University of Montreal. Montreal, Canada. Jan 2012.
- INFORMS Optimization Society Conference. Miami, FL. Feb 2012.

### **Polyhedral Results for All-Different System**

- INFORMS Annual Meeting 2010. Austin, TX. Nov 2010.

#### **KEYNOTE ADDRESSES**

### **Make the Best of the Next 168 Hours**

- School of Business, University of Connecticut—MSBAPM Graduation Ceremony. May 2018.

#### **POSTER PRESENTATIONS**

### **Bounds from Binary Decision Diagrams**

- Mixed Integer Programming Workshop 2012. Davis, California. Jul 2012.

### **Optimization for Food Rescue Program**

- 2nd International Conference on Computational Sustainability. Cambridge, MA. Jun 2010.

### **Facets for All-different Systems**

- 16th International Conference on Principles and Practice of Constraint Programming. Davis, California. St. Andrews, Scotland. Sep 2010.

#### **MEDIA MENTIONS**

**UConn Today Feature Article** on [Surviving an NFL Survival Pool](#), published in *Operations Research*.

TEACHING  
EXPERIENCE

**Instructor**

OPIM 5603: Statistics in Business Analytic, Fall 2020, Fall 2019, Fall 2018, Fall 2017

- Graduate course in the Business Analytics and Project Management M.S. degree program at the University of Connecticut
- Course includes R programming and an introduction to probability and statistics

OPIM 5641: Business Decision Modeling. Spring 2016.

- Graduate course in the Business Analytics and Project Management M.S. degree program at the University of Connecticut
- Course includes spreadsheet modeling and optimization.

OPIM 3510: Business Data Analytics. Fall 2015, Spring 2015, Fall 2014.

- Undergraduate course in Business Data Analytics major in the School of Business at the University of Connecticut
- Course includes data visualization, predictive analytics, and optimization

OPIM 5272: Business Process Modeling and Data Management. Fall 2020, Fall 2019, Fall 2018, Spring 2018, Fall 2017, Fall 2014, Spring 2014, Fall 2013.

- Graduate course in the Business Analytics and Project Management M.S. degree program at the University of Connecticut
- Course covers database design and implementation

OPIM 3506: Business Application Programming. Spring 2014, Fall 2013.

- Undergraduate course in the Business and Technology major in the School of Business at the University of Connecticut
- Course covers programming for developing applications for businesses Required course in the Business and Technology major
- Course is fully administered online, including assignments, exams, lectures, etc.

BUS 70-374: Forecasting and Data Mining. Spring 2011.

- Undergraduate course in the Tepper School of Business at Carnegie Mellon University
- Upper-level elective course for Business major
- Designed this new course, including the drafting of all course materials, which are still used today, both in undergraduate and graduate courses at Carnegie Mellon University

SERVICE

**Association for Constraint Programming Executive Committee Member and Secretary**

- Voted as member of Executive Committee
- Selected as Secretary by President

**Conference Program Committee Member**

- CPAIOR - International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 2015, 2016, 2017
- CP - International Conference on Principles and Practice of Constraint Programming, 2015, 2016, 2017
- AAAI - Conference on Artificial Intelligence, 2015, 2016, 2017

- IJCAI - International Joint Conference on Artificial Intelligence, 2015, 2016, 2017, 2018
- ICORES - International Conference on Operations Research and Enterprise Systems, 2017, 2018
- Lash - Workshop on Logic and Search, 2014.

#### **Conference Organization**

- CP 2019 - Conference Chair
- CPAIOR 2018 - Master Class Chair
- CP 2018 - Operations Research Track - Chair
- CP 2017 - Operations Research Track - Chair
- CORS/INFORMS International Conference 2015 - Cluster Chair, Session Chair
- CP 2015 - Doctoral Program Chair
- CPAIOR 2015 - Publicity Chair, Session Chair
- CPAIOR 2016 - Session Chair
- ACP Summer School 2016 - Co-organizer

#### **Competitions**

- 2018 INFORMS Student Competition Judge

#### **Professional Memberships**

- The Institute for Operations Research and the Management Sciences (INFORMS); INFORMS New York Metro Chapter

#### **Reviewer**

- Swiss National Science Foundation Ambizione Grant reviewer
- Ad-hoc reviewer for the following journals: INFORMS Journal on Computing; International Conference on Principles and Practice of Constraint Programming; International Conference on Integration of Artificial Intelligence and Operations Research Techniques in Constraint Programming; International Joint Conference on Artificial Intelligence; Journal of Combinatorial Optimization; The Journal of Artificial Intelligence Research; Mathematical Programming Computation; Constraints; Annals of Mathematics and Artificial Intelligence; Production and Operations Management; Management Information Systems Quarterly. European Journal of Operational Research; Production and Operations Management.