Tallys Yunes

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Contact Information

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Professional Appointments

- Associate Professor (tenured), Dept. of Management Science, University of Miami, 6/2012 – present.
- Assistant Professor, Department of Management Science, University of Miami, 8/2006 – 5/2012.
- Instructor, Department of Management Science, University of Miami, 8/2005 – 7/2006.

Education

- Ph.D., Operations Research, Carnegie Mellon University, 5/2006. Advisor: John N. Hooker.
- M.S., Operations Research, Carnegie Mellon University, 5/2002.
- M.S., Computer Science, University of Campinas (UNICAMP), Brazil, 4/2000.
  Advisors: Cid C. de Souza and Arnaldo V. Moura.
- B.S., Computer Engineering, University of Campinas (UNICAMP), Brazil, 11/1997.

Research Interests

- *Theoretical and empirical:* modeling, integer programming, constraint programming, meta-heuristics, large neighborhood search, and the integration of optimization techinques.
- *Application areas:* scheduling (sports, personnel, machines), product line simplification, transportation, political districting, call center operations, and information layout.

Awards and Honors

- Excellence in Teaching Award (best core course), School of Business Administration, University of Miami, selected by the regular full-time MBA class of May 2016.
- Excellence in Teaching Award, School of Business Administration, University of Miami, selected by the one-year full-time MBA class of December 2015.
- Faculty Research Mentor of the Year Award, Undergraduate Business Programs, School of Business Administration, University of Miami, 2015.
- Excellence in Teaching Award, School of Business Administration, University of Miami, selected by the Working Professionals MBA class of December 2014.
- Excellence in Teaching Award, School of Business Administration, University of Miami, selected by the one-year full-time MBA class of December 2014.
- Excellence in Teaching Award (best core course), School of Business Administration, University of Miami, selected by the regular full-time MBA class of May 2014.

- ◇ Excellence in Teaching Award, School of Business Administration, University of Miami, selected by the one-year full-time MBA class of December 2013.
- ◇ Excellence in Teaching Award (best core course), School of Business Administration, University of Miami, selected by the regular full-time MBA class of May 2013.
- ◇ Excellence in Teaching Award, School of Business Administration, University of Miami, selected by the one-year full-time MBA class of December 2012.
- ◇ Excellence in Teaching Award (best core course), School of Business Administration, University of Miami, selected by the regular full-time MBA class of May 2012.
- ◇ Air Force Office of Scientific Research grant to support *"A Unified Approach to Optimization"* (PI: John N. Hooker from CMU), 7/2011 – 6/2014. University of Miami share: $93,665.
- ◇ Honorable mention, INFORMS Railway Applications Section (RAS) Problem Solving Competition, 2010 (joint work with Michael Trick).
- ◇ Gerald L. Thompson Doctoral Dissertation Award in Management Science, Tepper School of Business, Carnegie Mellon University, 2006.
- ◇ James W. McLamore Summer Research Award in Business and Social Sciences, University of Miami, 2006 ($9,300), 2007 ($9,300), and 2010 ($10,500).
- ◇ William L. Mellon Fellowship, Tepper School of Business, Carnegie Mellon, 9/2000 – 8/2003.
- ◇ First prize, VIII UNESCO Latin American Master's thesis contest, Mérida, Venezuela, 9/2001.
- ◇ State of São Paulo Institute of Engineering Award for highest GPA among Computer Engineering graduates, University of Campinas (UNICAMP), Brazil, class of December 1997.

Refereed Publications (*click on blue titles to download papers*)

1. L. de Oliveira, C. C. de Souza, and T. Yunes, Lower Bounds for Large Traveling Umpire Instances: New Valid Inequalities and a Branch-and-Cut Algorithm, *Computers & Operations Research* 72, 147–159, 2016.
2. A. A. Cire, J. N. Hooker, and T. Yunes, Modeling with Metaconstraints and Semantic Typing of Variables, *INFORMS Journal on Computing* 28(1), 1–13, 2016.
3. R. Cano, C. C. de Souza, P. J. de Rezende, and T. Yunes, Arc-Based Integer Programming Formulations for Three Variants of Proportional Symbol Maps, *Discrete Optimization* 18, 87–110, 2015. This is the extended journal version of paper #13.
4. L. de Oliveira, C. C. de Souza, and T. Yunes, On the Complexity of the Traveling Umpire Problem, *Theoretical Computer Science* 562, 101–111, 2015.
5. G. Kunigami, P. J. de Rezende, C. C. de Souza, and T. Yunes, Optimizing the Layout of Proportional Symbol Maps: Polyhedra and Computation, *INFORMS Journal on Computing* 26(2), 199–207, 2014. This is the extended journal version of paper #15.
6. L. de Oliveira, C. C. de Souza, and T. Yunes, Improved Bounds for the Traveling Umpire Problem: A Stronger Formulation and a Relax-and-Fix Heuristic, *European Journal of Operational Research* 236(2), 592–600, 2014.
7. D. Bergman, A. A. Cire, W.-J. van Hoeve, and T. Yunes, BDD-Based Heuristics for Binary Optimization, *Journal of Heuristics* 20(2), 211–234, 2014.
8. M. A. Trick, H. Yildiz, and T. Yunes, Scheduling Major League Baseball Umpires and the Traveling Umpire Problem, *Interfaces* 42(3), 232–244, 2012.

9. G. Kunigami, P. J. de Rezende, C. C. de Souza, and T. Yunes, Generating Optimal Drawings of Physically Realizable Symbol Maps with Integer Programming, *The Visual Computer* 28(10), 1015–1026, 2012. This is the extended journal version of paper #14.
10. T. Yunes, I. D. Aron and J. N. Hooker, An Integrated Solver for Optimization Problems, *Operations Research* 58(2), 342–356, 2010.
11. T. H. Yunes, D. Napolitano, A. Scheller-Wolf and S. Tayur, Building Efficient Product Portfolios at John Deere and Company, *Operations Research* 55(4), 615–629, 2007.
12. T. H. Yunes, A. V. Moura and C. C. de Souza, Hybrid Column Generation Approaches for Urban Transit Crew Management Problems, *Transportation Science* 39(2), 273–288, 2005.
13. R. Cano, C. C. de Souza, P. J. de Rezende, and T. Yunes, Arc-Based Integer Programming Formulations for Three Variants of Proportional Symbol Maps, *Electronic Notes in Discrete Mathematics* 44, 251–256, 2013 (LAGOS).
14. G. Kunigami, P. J. de Rezende, C. C. de Souza, and T. Yunes, Determining an Optimal Visualization of Physically Realizable Symbol Maps. Published by IEEE Computer Society, *24th Conference on Graphics, Patterns and Images (SIBGRAPI)*, Maceió, AL, Brazil, August 28–31, 2011.
15. G. Kunigami, P. J. de Rezende, C. C. de Souza, and T. Yunes, Optimizing the Layout of Proportional Symbol Maps, *Lecture Notes in Computer Science* 6784, 1–16, 2011 (CGA).
16. T. Yunes, Software Tools Supporting Integration, book chapter in *Hybrid Optimization — The Ten Years of CPAIOR*, M. Milano and P. Van Hentenryck (eds.), 393–424, Springer, 2011. ISBN: 978-1-4419-1643-3.
17. J. N. Hooker and T. Yunes, An Integrated Approach for Truss Structure Design, Workshop on Hybrid Methods for Nonlinear Combinatorial Problems. Co-located with the *7th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR)*, Bologna, Italy, June 14–18, 2010.
18. I. D. Aron, J. N. Hooker and T. H. Yunes, SIMPL: A System for Integrating Optimization Techniques, *Lecture Notes in Computer Science* 3011, 21–36, 2004 (CPAIOR).
19. T. H. Yunes, On The Sum Constraint: Relaxation and Applications, *Lecture Notes in Computer Science* 2470, 80–92, 2002 (CP).
20. T. H. Yunes, A. V. Moura and C. C. de Souza, Solving Very Large Crew Scheduling Problems to Optimality, *15th ACM Symposium on Applied Computing* (SAC), Como, Italy, March 19–21, 2000.
21. T. H. Yunes, A. V. Moura and C. C. de Souza, A Hybrid Approach for Solving Large Scale Crew Scheduling Problems, *Lecture Notes in Computer Science* 1753, 293–307, 2000 (PADL).

Working Papers and Work in Progress (*click on blue titles to download papers*)

22. Restructuring the Backhoe Loader Product Line at Caterpillar: A New Lane Strategy (with G. Fenu, A. Scheller-Wolf, M. Shunko, V. Tardif, and S. Tayur). *Submitted (second round)*, June 2016.
23. Optimal Sequencing with Decision Diagrams. *In progress*.
24. Discrete Stochastic Appointment Scheduling. *In progress*.
25. Product Assortment Optimization. *In progress*.
26. Piecewise-Linear Optimization with Knapsack and Cardinality Constraints. *In progress*.
27. Resource-Constrained Scheduling with Uniform Resource Requirements. *In progress*.
28. Cross Training for Flexibility in Manufacturing and Service Operations. *In progress*.

Selected Talks

1. An MDD-Based Approach for the Time-Dependent TSP (joint work with D. Bergman and A. A. Cire), *INFORMS Annual Meeting*, Nashville, TN, November 13–16, 2016.
2. The Traveling Umpire Problem: An Overview of Recent Progress (joint work with L. de Oliveira and C. C. de Souza). Invited to the 13th *Mixed Integer Programming (MIP) Workshop*, Coral Gables, FL, May 23–26, 2016.
3. Modeling with Meaning: Metaconstraints and Semantic Typing (joint work with A. A. Cire and J. N. Hooker), *INFORMS Annual Meeting*, San Francisco, CA, November 9–12, 2014.
4. Optimizing the Layout of Proportional Symbol Maps: Polyhedra and Computation. Invited talk at the East West Manufacturing Scott Ellyson Seminar Series. Department of Industrial and Systems Engineering, University of Florida, October 24, 2013.
5. Modeling with Metaconstraints and Semantic Typing of Variables (joint work with A. A. Cire and J. N. Hooker), *INFORMS Annual Meeting*, Minneapolis, MN, October 6–9, 2013. Earlier version presented at the *INFORMS Computing Society Conference*, Santa Fe, NM, January 6–8, 2013.
7. MIP Modeling with Metaconstraints and Semantic Typing (joint work with A. A. Cire and J. N. Hooker). Invited talk presented by John Hooker at the 10th *Mixed Integer Programming (MIP) Workshop*, Madison, WI, July 22–25, 2013.
8. Optimizing the Layout of Proportional Symbol Maps (joint work with G. Kunigami, P. J. de Rezende and C. C. de Souza), *INFORMS Annual Meeting*, Phoenix, AZ, October 14–17, 2012.
9. Semantic Typing of Variables (joint work with A. A. Cire and J. N. Hooker), *INFORMS Annual Meeting*, Charlotte, NC, November 13–16, 2011.
10. Valid Inequalities for the Cumulative Constraint and the Cumulative Job Shop Scheduling Problem (joint work with D. Magos and I. Mourtos), 19th *Conference of the International Federation of Operational Research Societies (IFORS)*, Melbourne, Australia, July 10–15, 2011. Also presented at: *INFORMS Annual Meeting*, Charlotte, NC, November 13–16, 2011; *Operations Research Seminar*, Tepper School of Business, Carnegie Mellon University, March 25, 2011.
13. A Polyhedral Study of the Cumulative Constraint (joint work with D. Magos and I. Mourtos). *INFORMS Annual Meeting*, Austin, TX, November 7–10, 2010.
14. Valid Inequalities for the Cumulative Constraint (joint work with D. Magos and I. Mourtos). 11th *International Symposium on AI and Mathematics (ISAIM)*, Fort Lauderdale, FL, January 6–8, 2010.
15. Valid Inequalities for a Piecewise-Linear Objective with Knapsack and Cardinality Constraints (joint work with I. R. de Farias Jr.). 20th *International Symposium on Mathematical Programming (ISMP)*, Chicago, IL, August 23–28, 2009.
16. Keep it SIMPL: Latest Developments in a General Purpose Modeling and Solution System for Integrated Optimization (joint work with I. D. Aron and J. N. Hooker). Presented by me at: *CORS-INFORMS International Meeting*, Toronto, Canada, June 14–17, 2009; 11th *INFORMS Computing Society Conference*, Charleston, SC, January 11–13, 2009. Presented by John Hooker at the 20th *International Symposium on Mathematical Programming (ISMP)*, Chicago, IL, August 23–28, 2009.
19. Supporting a Bundling, Lane and Price Sheet Strategy for a Fortune 500 Industrial Manufacturer (joint work with A. Scheller-Wolf, M. Shunko, V. Tardif, S. Tayur and N. Trapp), *INFORMS Annual Meeting*, Washington D.C., October 12–15, 2008. Invited talk given by Sridhar Tayur.
20. Complexity Reduction and Price Optimization at Caterpillar Inc. (joint work with A. Scheller-Wolf, M. Shunko, V. Tardif, S. Tayur and N. Trapp), *INFORMS Annual Meeting*, Seattle, WA, November 4–7, 2007.

21. Scheduling Umpires (joint work with M. A. Trick and H. Yildiz), *European Conference on Operational Research (EURO)*, Prague, July 8–11, 2007. Invited talk given by Michael Trick.
22. Scheduling Major League Baseball Umpires (joint work with H. Barringer, J. Levine and M. A. Trick), *INFORMS Annual Meeting*, Pittsburgh, PA, November 5–8, 2006.
23. An Integrated Solver for Optimization Problems (joint work with I. D. Aron and J. N. Hooker). Invited to the 3rd *Mixed Integer Programming Workshop* (2006), University of Miami, Coral Gables, FL, June 5–8, 2006. Also presented at: *Institute of Computing*, University of Campinas (UNICAMP), Campinas, SP, Brazil, June 27, 2007; 10th *INFORMS Computing Society Conference*, Coral Gables, FL, January 3–5, 2007; *INFORMS Annual Meeting*, San Francisco, CA, November 13–16, 2005.
27. SIMPL: A System for Integrating Optimization Techniques (joint work with I. D. Aron and J. N. Hooker), *INFORMS Annual Meeting*, Denver, CO, October 24–27, 2004. Also invited to be presented at: Department of Management Science, University of Miami, January 26, 2005; Department of Mechanical Engineering, University of Minnesota, February 1, 2005; Department of Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, February 4, 2005; Department of Operations and Decision Technologies, University of California Irvine, February 7, 2005; Department of Combinatorics and Optimization, University of Waterloo, Canada, February 10, 2005.
33. Building Efficient Product Portfolios at John Deere (joint work with D. Napolitano, A. Scheller-Wolf and S. Tayur), *INFORMS Annual Meeting*, Denver, CO, October 24–27, 2004.
34. On The Sum Constraint: Relaxation and Applications, 8th *International Conference on Principles and Practice of Constraint Programming* (CP), Ithaca, NY, USA, September 8–13, 2002.
35. Solving a Real World Crew Rostering Problem with Integer Programming and Constraint Logic Programming Models (joint work with A. V. Moura and C. C. de Souza), 17th *International Symposium on Mathematical Programming*, Atlanta, GA, August 7–11, 2000.
36. Solving Very Large Crew Scheduling Problems to Optimality (joint work with A. V. Moura and C. C. de Souza), 15th *ACM Symposium on Applied Computing* (SAC), Como, Italy, March 19–21, 2000.
37. A Hybrid Approach for Solving Large Scale Crew Scheduling Problems (joint work with A. V. Moura and C. C. de Souza), 2nd *International Workshop on Practical Aspects of Declarative Languages* (PADL), Boston, MA, USA, January 17–18, 2000.
38. Exact Solutions for Real World Crew Scheduling Problems (joint work with A. V. Moura and C. C. de Souza), *INFORMS Annual Meeting*, Philadelphia, PA, November 7–10, 1999.

Teaching Experience

Courses Taught at the University of Miami (instructor ratings out of 5.00):

- ◇ *MAS 632: Management Science Models for Decision Making*, MBA core, School of Business Administration, University of Miami, fall 2005 (4.58), spring 2006 (4.19), spring 2007 (4.76, 4.67), spring 2008 (4.65, 4.57), spring 2009 (4.69, 4.67), spring 2010 (4.89, 4.91, 4.83), spring 2011 (4.71, 4.81, 4.87), spring 2012 (4.94, 5.00, 4.88), spring 2013 (4.92, 5.00, 4.93), spring 2014 (4.94, 4.92, 4.96), spring 2015 (4.97, 4.95, 4.33), spring 2016 (4.83, 4.86, 4.93);
- ◇ *MAS 641: Operations Research Models in Management*, MBA for Working Professionals, School of Business Administration, University of Miami, fall 2012 (4.69), fall 2013 (4.94), fall 2014 (5.00), fall 2015 (5.00);
- ◇ *BUS 658: Business Analytics* (co-taught), one of seven case-based 3-day residencies in the Miami Executive MBA for the Americas program, School of Business Administration, University of Miami, summer 2015, summer 2016;

- ◇ *BUS 625: Brazilian Business Environment*, Global Immersion MBA Elective, School of Business Administration, University of Miami, spring 2016;
- ◇ *MAS 441: Deterministic Models in Operations Research*, undergraduate, School of Business Administration, University of Miami, fall 2007 (business: 4.75), fall 2008 (business: 5.00, industrial engineering: 4.36), fall 2009 (business: 4.67);
- ◇ *MAS 547: Computer Simulation Modeling*, undergraduate, School of Business Administration, University of Miami, fall 2005 (4.00), fall 2006 (4.75), fall 2007 (4.83);
- ◇ *MAS 201: Introduction to Business Statistics*, undergraduate, School of Business Administration, University of Miami, fall 2006 (4.44);

Courses Taught at Other Universities (instructor ratings out of 5.00):

- ◇ *Introduction to Constraint Programming*, one-week mini-course (9 hours), Industrial Engineering Department, Universidad de los Andes, Colombia, October 31 – November 4, 2011;
- ◇ *Sequencing and Scheduling*, MBA elective, Tepper School of Business, Carnegie Mellon University, fall 2004 (4.27);
- ◇ *Quantitative Skills Review Program* (30-hour math review for incoming MBA students), Tepper School of Business, Carnegie Mellon University, summer 2004 (4.62, 4.24).

Other Teaching-Related Activities:

- ◇ *Teaching Fellow*, Eberly Center for Teaching Excellence, Carnegie Mellon University, 6/2003 – 5/2005.
- ◇ Invited member, Graduate Student Teaching Award selection committee, Carnegie Mellon University, 2001 – 2003.
- ◇ Teaching Assistant at both MBA and PhD levels (23 times), Tepper School of Business, Carnegie Mellon University, 2001 – 2005.
- ◇ Attended 18 teaching seminars offered by the Eberly Center for Teaching Excellence at Carnegie Mellon. Topics covered include: overview of student cognition; the role of external representations in the active construction of knowledge; writing in the disciplines; communicating across cultures; course and syllabus design; assessing student learning and providing helpful feedback; collaboration and peer-critique during teaching and learning; what makes a comfortable classroom climate; overview of student motivation; planning effective lectures; conducting productive discussions; strategies to increase active learning; teaching first-year students; working well one-on-one; teaching from the heart; and using case studies to actively engage students.

Other Contributions to Research and Teaching

- ◇ Contributed an improvement (based on one of my blog posts) to problem 32 (locating ambulances in Dade County) in Chapter 6 of the seventh edition of *Spreadsheet Modeling and Decision Analysis* by Cliff Ragsdale. Cengage Learning, 2014. ISBN: 978-1285418681.
- ◇ Contributed three problem instances to MIPLIB 2010 (a benchmark widely used by researchers in discrete optimization), namely: *csched007*, *csched008*, and *csched010* (single-machine cumulative scheduling). Journal reference: *Mathematical Programming Computation*, volume 3, issue 2, pages 103–163, 2011. Web site: http://miplib.zib.de.
- ◇ Contributed the case study entitled "Warehouse Tenting at the Port of Miami" (based on one of my blog posts) to Module A of the eleventh edition of *Operations Management* by Jay Heizer and Barry Render. Prentice Hall, 2013. ISBN: 978-0132921145.

Consulting and Practical Experience

- ◇ Consultant to Burger King's supply chain management and distribution co-op (Restaurant Services, Inc.) on procurement optimization and cost reduction, 5/2013 – 10/2013, 3/2014 – 12/2014;
- ◇ Consultant to Caterpillar, Inc. (through SmartOps Corp.) on product line simplification, 4/2006 – 11/2007. Joint work with A. Scheller-Wolf, M. Shunko, V. Tardif, and S. Tayur;
- ◇ Consultant to John Deere & Co. (through SmartOps Corp.) on product line simplification, 5/2003 – 11/2004. Joint work with D. Napolitano, A. Scheller-Wolf and S. Tayur;
- ◇ Consultant to Major League Baseball (through the Sports Scheduling Group) on the scheduling of umpires. Joint work with H. Barringer, J. Levine and M. A. Trick, 1/2005 – 5/2005; joint work with M. A. Trick, 1/2006 – 3/2006;
- ◇ Informal consulting with a brazilian urban transit company on the scheduling of bus drivers, 3/1998 – 5/2000. Joint work with A. V. Moura and C. C. de Souza.

Student Supervision and Collaboration with Short-Term Visitors

- ◇ Doctoral dissertation advising/committees:
  - ○ Thiago Porto, Department of Management Science, School of Business Administration, University of Miami (2015 – present). Thesis topic: *TBD*. Co-advised with Andre A. Cire from the University of Toronto Scarborough.
  - ○ Lucas de Oliveira, Institute of Computing, University of Campinas (UNICAMP), Brazil (2012 – present). Thesis topic: *Umpire Scheduling*. Co-advised with Cid C. de Souza from UNICAMP.
  - ○ Hakan Yildiz, Tepper School of Business, Carnegie Mellon University (2002 – 2008). Thesis title: *Methodologies and Applications for Scheduling, Routing and Related Problems*. Advisor: Michael Trick. Initial placement: Michigan State University.
- ◇ Directed undergraduate research study with Linh Nghiem, Department of Management Science, spring 2015. Project topic: *Improving patient flow through the pre-operation assessment clinic at a local hospital.*
- ◇ Directed undergraduate research study with Stephen Bishop, Department of Management Science, spring 2015. Project topic: *Assessing the trade-offs between monthly and hourly-paid spots at parking lots and garages.*
- ◇ Research collaboration with Krzysztof Fleszar, Associate Professor, American University of Beirut, Lebanon. Visit: 11/2014 – 12/2014. Project topic: *Two-dimensional bin packing with guillotine cuts*.
- ◇ Honors summer research advisor for Linh Nghiem, Department of Management Science, summer 2014. Project topic: *Concert tour route optimization*. Accepted for presentation at: ACC Meeting of the Minds Undergraduate Research Conference, Raleigh, NC, April 10–12, 2015; SACNAS National Conference, Los Angeles, CA, October 16–18, 2014. Winner of the Excellence in Research Award, School of Business Administration, University of Miami, April 2015.
- ◇ Senior thesis advisor for Robert Stacey, Department of Management Science, fall 2012 and spring 2013. Project topic: *Heterogeneous facility location with blockages*. First place winner, Undergraduate Research, Creativity, and Innovation Forum (business category), University of Miami, April 2013.
- ◇ Research collaboration with Jonas Bæklund, visiting doctoral student, Aarhus University, Denmark. Visit: 1/2011 – 6/2011. Project topic: *Nurse rostering in a Danish hospital*.

- Directed undergraduate research study with Juan Carlos Villegas, University of Miami, fall 2010. Project title: *Coverage Optimization with Visual Interference: A Case Study of the Blue-Light Phones on the University of Miami Campus*.

Service to the Academic Community

- *Editorial Board Member:* INFORMS Journal on Computing (Associate Editor, 3/2014 – present), International Transactions in Operational Research (Associate Editor, 10/2012 – present).
- *Grant Proposal Review Panelist:* National Science Foundation (2015).
- INFORMS Public Information Committee (PIC) member, 8/2011 – 12/2013.
- *Organizing Committee Member:* INFORMS Optimization Society Conference (2012), Mixed Integer Programming (MIP) Workshop (2016).
- *Program Committee Member:* International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR) (2008 – 2014), International Conference on Principles and Practice of Constraint Programming (CP) (2012, 2015), INFORMS Optimization Society Conference (2012).
- *Session Organizer/Chair:* INFORMS Annual Meeting (2004, 2007, 2008, 2010, 2011), INFORMS Computing Society Conference (2007), CORS-INFORMS International Meeting (2009).
- *Ad hoc Reviewer: Operations Research*, *Manufacturing and Service Operations Management*, *INFORMS Journal on Computing*, *Mathematical Programming Computation*, *Discrete Applied Mathematics*, *Naval Research Logistics*, *Annals of Operations Research*, *Journal of Heuristics*, *Journal of Scheduling*, *Interfaces*, *European Journal of Operational Research*, *Computers and Operations Research*, *Computational Optimization and Applications*, *Constraints*, *Information Processing Letters*, *International Transactions in Operational Research*, *INFORMS Transactions on Education*, *EURO Journal on Computational Optimization*, International Conference on Principles and Practice of Constraint Programming (CP), International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), ACM Symposium on Applied Computing (SAC), Workshop on Experimental Algorithms (WEA), Brazilian Symposium on Operations Research (SBPO).

Service to the School of Business and the University of Miami

- Faculty Coordinator, Business Analytics, Miami Executive MBA for the Americas, 11/2014 – present.
- Member of the university-wide Academic Computing and Advisory Committee, 11/2014 – present.
- Member of the Ph.D. Program Admissions Committee, 2/2014 – present.
- Member of the Full-Time Graduate Business Programs Advisory Committee, 10/2012 – 12/2013.
- Taught sample classes to prospective undergraduate and graduate students at the following events: *Family Weekend* (9/2015), *MBA for a Day* (2/2013, 11/2013, 2/2014, and 10/2015), *Stamps/Singer Scholarship Weekend* (3/2013 and 3/2014).
- Singer Scholarship interviewer, 2010 and 2011.
- Member of the Graduate Curriculum Taskforce, 8/2007 – 5/2008.
- Organizer of the Management Science Department seminar series, 8/2006 – 5/2012.
- Member of the stage party at the spring commencement ceremony (five times), 2007 – 2013.

Selected Media Mentions

- Featured in *ORMS Today Magazine*'s What's Your StORy? April issue, page 11, 2016 (PDF version).
- Featured in a *Florida Trend Magazine* article entitled Florida's MBA Professors Are Pushing the Limits. March issue, page 48, 2013 (PDF version).
- *WAMC Northeast Public Radio Academic Minute*, Umpire Scheduling, October 19, 2011 (MP3 audio).
- *Miami New Times*, University of Miami Scientist Cracks MLB's Umpire Code, September 8–14, 2011.
- *Scientific American*, Researchers Tell Umpires Where to Go, August 18, 2011 (PDF version).
- *PhysOrg*, University of Miami Business Professor Helps Create a Successful Scheduling Method for Umpires in Major League Baseball, August 3, 2011 (PDF version).
- *HPCwire*, Business Prof Solves Traveling Umpire Problem for Major League Baseball, August 3, 2011.

Personal Information

- Born in Brazil. U.S. Citizen. Married. Erdös Number: 3.
- *Natural languages:* fluent in English and Portuguese; beginner in French and Spanish.
- *Programming languages:* Assembly 8086, C, C++, Lisp, Pascal, Perl, Prolog.
- *Modeling languages:* AMPL, Arena, Comet, ECLiPSe, OPL.