

CURRICULUM VITAE OF MIGUEL F. ANJOS

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Educational and Professional Qualifications

Doctor of Philosophy (PhD, 2001) in Combinatorics & Optimization,
University of Waterloo, Canada

Title of PhD thesis: *New Convex Relaxations for the Maximum Cut and
VLSI Layout Problems*

Thesis supervisor: Henry Wolkowicz

Certificate in University Teaching (CUT, 2000), University of Waterloo, Canada

Master of Science (MS, 1994) in Scientific Computing and Computational Mathematics,
Stanford University, U.S.A.

Bachelor of Science (BSc, 1992) in Computer Science with First Class Honours, University
Scholar, McGill University, Canada

Licensed Professional Engineer (Ontario, Canada)

Fellow of the Higher Education Academy (UK)

Awards and Honors

Fellow of the Canadian Academy of Engineering (FCAE), the national institution through
which Canada's most distinguished engineers provide strategic advice on matters of critical
importance to Canada.

Fellow of EUROPT (FEUROPT), the continuous optimization working group of the
Association of European Operational Research Societies, in recognition of outstanding
work and achievements in this area.

Senior Member, Institute of Electrical and Electronics Engineers (SMIEEE). IEEE SMs are
academics and practitioners in IEEE-designated fields who have been in professional
practice for at least ten years, and have shown significant performance over a period of at
least five of those years.

Humboldt Research Fellowship for Experienced Researchers, awarded through a competitive
program and enabling extended research visits to Germany.

Queen Elizabeth II Diamond Jubilee Medal, awarded for significant contributions to
mathematical optimization and its industrial applications.

Research Chairs

NSERC Industrial Research Chair on *Optimization for the Smart Grid* Nov 2016 – present

Inria International Chair on *Power Peak Minimization for the Smart Grid* Sep 2016 – present
 Canada Research Chair on *Discrete Nonlinear Optimization
 in Engineering* Nov 2011 – Oct 2016

Academic Appointments

Regular Positions

Full Professor, Department of Mathematics and Industrial Engineering,
 Polytechnique Montreal, Canada Jun 2013 – present
 Associate Professor, Department of Mathematics and Industrial
 Engineering, Polytechnique Montreal, Canada Sep 2010 – May 2013
 Associate Professor, Department of Management Sciences, cross-appointed
 to the Department of Electrical and Computer Engineering,
 University of Waterloo, Canada Jul 2007 – Aug 2010
 Assistant Professor, Department of Management Sciences, cross-appointed
 to the Department of Electrical and Computer Engineering,
 University of Waterloo, Canada Jul 2004 – Jun 2007
 Lecturer in Operational Research, School of Mathematics,
 University of Southampton, United Kingdom Sep 2002 – Jun 2004
 DO-Net Postdoctoral Researcher at the Institute for Computer Science,
 University of Cologne, Germany Aug 2001 – Mar 2002

Administrative Positions

Founding Director of the Trottier Energy Institute,
 Polytechnique Montreal, Canada. Mar 2013 – Aug 2016
 Graduate Studies Coordinator for Mathematics,
 Department of Mathematics and Industrial Engineering,
 Polytechnique Montreal, Canada Jan 2013 – Apr 2013
 Associate Chair for Graduate Studies & Research, Department of
 Management Sciences, University of Waterloo, Canada May 2007 – Aug 2009

Visiting Positions

Visiting Fellow, Isaac Newton Institute for Mathematical Sciences,
 Cambridge, U.K. Jul 2013 – Aug 2013
 Humboldt Research Fellow, Institute for Computer Science,
 University of Cologne, Germany. Sep 2009 – Aug 2010
 Visiting Academic, Churchill College, Cambridge University,
 United Kingdom Jun 2009
 Visiting Fellow, Operations Research & Financial
 Engineering, Princeton University, U.S.A. May 2008 – Aug 2008
 Visiting Assistant Professor, Department of Electrical and Computer
 Engineering, University of Waterloo, Canada. Apr 2002 – Jun 2002

Courtesy Positions

Adjunct Professor, Department of Informatics and Mathematics, Université du Québec à Chicoutimi, Canada	Feb 2018 – present
Regular member, Groupe d'Études et de Recherche en Analyse de Décisions (GERAD), Montreal, Canada	Oct 2010 – present
Adjunct Associate Professor, Department of Management Sciences, University of Waterloo, Canada	Sep 2010 – Aug 2013
Affiliated Member of the Centre for Computational Mathematics in Industry and Commerce, University of Waterloo, Canada	Jul 2004 – Aug 2010
Adjunct Assistant Professor, Department of Electrical and Computer Engineering, University of Waterloo, Canada	Jan 2002 – Sep 2005

Industry Work Experience

Director of Operations, Lusimat Inc., Quebec, Canada	Jun 1994 – Jul 1997
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Editorial Appointments***Editor-in-Chief***

<i>Optimization and Engineering</i> (Springer)	Jan 2013 – Dec 2017
Increased the size of the journal from 600 pages/year to 1000 pages/year	
Improved ISI impact factor from 0.875 (2012) to 1.352 (2017)	
Instituted the Howard Rosenbrock Prize awarded annually for the best paper published in the journal during the previous year	

Associate Editor

<i>Optimization Methods and Software</i>	Jul 2018 – present
<i>Pacific Journal of Mathematics for Industry</i>	Jan 2016 – present
<i>IEEE Transactions on Power Systems</i>	Jan 2014 – present
<i>Operations Research Letters</i>	Jan 2013 – present
<i>RAIRO-Operations Research</i>	Jan 2011 – present
<i>Optimization and Engineering</i>	Jan 2008 – present
<i>Discrete Applied Mathematics</i>	Jan 2007 – present
<i>Surveys in Operations Research and Management Science</i>	Jan 2013 – Dec 2016

Guest Editor

Special issue of <i>INFOR</i> on Continuous Optimization and Applications in Machine Learning and Data Analytics, co-edited with F. Bastin, S. Le Digabel, and A. Lodi, to appear in 2019	
Special issue of <i>INFOR</i> on Facility Layout, co-edited with M.V.C. Vieira, to appear in 2018	
Special issue of <i>Annals of Operations Research</i> on Paths, Pivots, and Practice: The Power of Optimization, co-edited with A. Deza, Volume 265, Issue 1, June 2018.	
https://link.springer.com/journal/10479/265/1/page/1	

Special issue of *Mathematical Programming Series B* on Cone Programming and its Applications, co-edited with E. de Klerk and F. Rendl, Volume 129, Issue 1, September 2011. <https://link.springer.com/journal/10107/129/1/page/1>

Institutional Service

Polytechnique Montreal

Member, IVADO Scientific Committee, 2016–present

Member, GERAD Scientific Committee, 2016–present

Member, Department Committee for Promotion, 2015–present

Member, Department Selection Committee for Hiring (Assistant Professor), 2018

Member, University Academic Board, 2016

Member, University Ad-hoc Committee for Emeritus Appointments, 2016

Member, Department Selection Committee for Hiring (Research Associate), 2016

Member, Department Selection Committee for Director of the Department, 2016

Member, Department Selection Committee for Hiring (Assistant Professor), 2015–2016

Member, Department Ad-hoc Committee for Hiring (Limited-term Researcher), 2015–2016

Member, Strategic Planning Committee for the GERAD research stream on *Mathematical Methods for Decision-Making Support*, 2013–2016

Member, Department Selection Committee for Hiring (Assistant Professor), 2012

Co-coordinator, MTH 1006 (Algèbre linéaire), 2011–2014

Member, Working Group on Graduate Programs in Energy Engineering, 2011–2013

University of Waterloo

Member, Department Advisory Committee on Appointments (hiring), 2007–2009

Member, Department Merit Committee, 2007–2009

Department Library Representative, 2004–2010

Member, Department Graduate Studies Committee, 2004–2009

Invited panellist, Workshop “Documenting Your Teaching for Tenure and Promotion”, 2008

Member, Department Tenure & Promotions Committee, 2007–2008

Co-lead (with Kenneth McKay) of a systematic review of the tactical and operational mechanisms of the employment process at Waterloo’s Co-operative Education and Career Services (CECS), 2006–2007

Department Representative, Engineering Faculty Council, 2004–2007

Member, Advisory Committee on Research Grants for the Faculty of Engineering, 2005–2006

Member, Department Task Force for the Faculty of Engineering’s “Vision 2010” Plan, 2004

University of Southampton

Member, Student Liaison Committee, School of Mathematics, 2003–2004

Member, University Web Strategy Committee, 2002–2004

Personal tutor for undergraduate and MSc students, 2002–2004

Interviewer, undergraduate and graduate admissions, School of Mathematics, 2002–2004

Course Coordinator for the programs *Management Mathematics*, *Mathematics with Management*, and *Mathematics with Operational Research*, 2002–2004

Course reviewer, MA335 (Optimization), 2002–2003

Service to the Profession

Professional Society Offices

President-Elect, INFORMS Section on Energy, Natural Resources, and the Environment (ENRE) (2018–2020)

President, Montreal Section of the Canadian Operational Research Society (2016–present)

Vice-president, Montreal Section of the Canadian Operational Research Society (2013–2015)

Council Member, Mathematical Optimization Society (2012–2014)

Program Director, SIAM Activity Group on Optimization (2011–2013)

Vice-Chair (Linear Prog. & Complementarity), INFORMS Optimization Society (2009–2011)

Advisory Appointments

Member, Innovation Committee of InnovÉÉ: Innovation en énergie électrique (2017–present)

Member Emeritus, Mitacs Research Council (2018–present)

Member, Mitacs Research Council (2011–2018)

Member, Mitacs Research Review Committee (2009–2011)

Prize Committees

Chair, Selection Committee for the Inaugural INFORMS-ENRE Young Researcher Prize, 2013

Member, Selection Committee for the SIAG/Optimization Prize of the Society for Industrial and Applied Mathematics (SIAM), 2017

Member, Selection Committee for the Pierre-Dansereau Prize of ACFAS, 2015

Member, Selection Committee for Graduate Scholarships in the area of Energy, Fonds de recherche du Québec, 2014 and 2015

Member, Selection Committee for the A.W. Tucker Prize of the Mathematical Optimization Society (MOS), 2012

Member, Selection Committee for the Cecil Graham Doctoral Dissertation Award of the Canadian Applied and Industrial Mathematics Society (CAIMS), 2011

Member, Selection Committee for the INFORMS Optimization Society Student Paper Prize, 2010

Judge, IEEE PES student poster contest, 2016–present

External PhD Thesis Examiner

Ian Wallace, University of Edinburgh, U.K., 2017
 Michael Ross, McGill University, Canada, 2016
 Amin Farshidi, University of Calgary, Canada, 2016
 Corentin Friedrich, École Centrale de Nantes, France, 2016
 Ditte Mølgaard Heide-Jørgensen, University of Copenhagen, Denmark, 2016
 Sezin Afşar, Inria Lille-Nord Europe, France, 2016
 Uwe Truetsch, Tilburg University, Netherlands, 2014
 Omar Ryan Saadeh, McGill University, Canada, 2014
 Matthew Oster, Rutgers University, U.S.A., 2014
 Fabrizio Sossan, Technical University of Denmark, Denmark, 2013
 Logan Rakai, University of Calgary, Canada, 2012
 Stephen J. Stoyan, University of Toronto, Canada, 2009
 Xiaohua Yang, McGill University, Canada, 2008
 Walid Zghal, Polytechnique Montreal, 2008
 Linda van Norden, Technische Universiteit Delft, Netherlands, 2006

External Masters Thesis Examiner

André Dagenais, McGill University, Canada, 2018
 Franklin Djeumou Fomeni, University of the Witwatersrand, South Africa, 2011
 Voicu Chis, McMaster University, Canada, 2008

External Tenure and/or Promotion Reviews (in the last 6 years)

2018: one in Denmark; 2017: three in the USA and one in Canada; 2016: three in the USA;
 2014: one in the USA; 2012: one in Portugal and one in China

Ad-hoc Reviewing of Grant Applications (in the last 6 years)

Natural Sciences and Engineering Research Council (NSERC) of Canada, Natural Resources Canada, Swiss National Science Foundation, Canada-Israel Industrial Research & Development Foundation, National Commission for Scientific and Technological Research (CONICYT) of Chile.

Ad-hoc Reviewing of Scientific Manuscripts (in the last 6 years)

Asia-Pacific Journal of Operational Research; Computational Optimization & Applications; Discrete Applied Mathematics; Energy Policy; Energy Systems; European Journal of Operational Research; IEEE Transactions on Computers; IEEE Transactions on Power Systems; IEEE Transactions on Smart Grid; INFORMS Journal on Computing; International Symposium on Combinatorial Optimization; Journal of the Operational Research Society; Mathematical Programming (Series A); Mathematical Programming Computation; Modeling and Optimization: Theory and Applications (Springer book); North American Power Symposium; Operations Research; Optimization Letters; Optimization Methods and Software; Operations Research Letters; RAIRO-OR; Renewable and Sustainable Energy Reviews.

Other External Reviews

Acting on Climate Change: Solutions from Canadian Scholars by Potvin et al., Sustainable Canada Dialogues, McGill University, 2014.

Organization of Scientific Events

Lead Organizer

Program Committee Chair, *15th EUROPT Workshop on Advances in Continuous Optimization*, GERAD, Montreal QC, Canada, 2017 (3 days, 254 participants)

Lead organizer, *Workshop on Modern Convex Optimization and Applications*, Fields Institute, Toronto ON, Canada, 2017 (4 days, 76 participants)

Lead organizer, *Paths, Pivots, and Practice: The Power of Optimization*, GERAD, Montreal QC, Canada, 2015 (3 days, 46 participants)

Organizing Committee Co-chair, *SIAM Conference on Optimization 2014*, San Diego CA, U.S.A., 2014 (4 days, over 650 participants)

Lead co-organizer for a three-year set of colloquia on energy at the Entretiens Jacques-Cartier: *Défis énergétiques : la gestion des réseaux et l'électrification des transports: de la théorie à la pratique*, Montreal, Canada, 2014

Intégration fûtée des énergies renouvelables : l'habitat, le réseau et leurs interactions, Toulouse, France, 2013

L'électricité intelligente : vers des systèmes à valeur ajoutée, Lausanne, Switzerland, 2012

Organizer, *Discrete Nonlinear Optimization in Engineering* seminar series at GERAD, 2011–2016 (approximately 25 seminars per academic year)

Program Committee Chair, *MOPTA 2008*, Guelph, Canada (3 days, 93 participants)

Scientific Organization

Selects committee, INFORMS Business Analytics & Operations Research Conference, 2013–present

Advisory Council, INFORMS Business Analytics & Operations Research Conference, 2011

Advisory Council, INFORMS Practice Conference, and co-chair, Young Researcher Connection, 2007, 2008, and 2009

Program/steering committee: *ISCO 2018*, Workshop on Graph Theory, Combinatorics and Optimization 2018, Optimization 2017, Optimization 2014, Computational Management Science 2013, INFORMS Optimization Conference 2012

Cluster/stream organizer: ISMP 2018, CORS 2016, CORS-INFORMS 2015, MOPTA 2015, MOPTA 2014, ICCOPT 2013, EURO-INFORMS 2013, EURO 2012

Organizer and chair of the Energy, Natural Resources & the Environment (ENRE) Awards session, INFORMS Annual Meeting 2014

Session/minisymposium organizer: SIAM Conference on Optimization 2017, IFORS 2017, ICCOPT 2016, CCTC 2015, ISMP 2015 (on 4 different streams), INFORMS Annual Meeting 2015, Optimization Days 2012, MOPTA 2012

Local Organization

Local Organizing Committee: MIP 2017, ICCOPT 2013, Optimization Days 2013

International Organizing Committee: 4th Int. Conference on Engineering Optimization, 2014

Research Contracts and Grants

Major Research Grants (CAD\$100,000 or more as P.I. or co-P.I.)

Location and Pricing of Electric Vehicle Charging Stations (2019–2022)

Amount: CAD\$200,000

Funder: Hydro-Québec

Principal Investigators: M.F. Anjos, B. Gendron

Integration of Small-Scale Prosumers into an Economic Arrangement Framework for Energy Provision (2018–2020)

Amount: CAD\$140,000

Funder: IVADO

Principal Investigator: M.F. Anjos

Leveraging Big Data, Machine Learning and Operations Research to Optimize Quebec's Position in the Electricity Market of the Future (2018–2020)

Amount: CAD\$140,000

Funder: IVADO

Principal Investigator: M.F. Anjos

Optimization tools for short-term hydropower generation management (2018–2020)

Amount: CAD\$247,000 (\$90,000 to M.F. Anjos)

Funders: Mitacs and Rio Tinto.

Principal Investigators: M.F. Anjos, D. Orban, S. Séguin

Other investigators: G. Desaulniers, P. Côté

Location and Pricing of Electric Vehicle Charging Stations (2017–2019)

Amount: CAD\$140,000

Funder: IVADO

Principal Investigators: M.F. Anjos, B. Gendron

NSERC-Hydro-Québec-Schneider Electric Industrial Research Chair (2016–2021)

Amount: CAD\$1,740,000

Principal Investigator: M.F. Anjos

Conic Optimization Approaches for Hard Discrete Problems in Engineering (2015–2020)

Amount: CAD\$140,000

Funder: NSERC Discovery Program

Principal Investigator: M.F. Anjos

NSERC Energy Storage Technology Strategic Network (NESTNet) (2015–2020)

Amount: CAD\$8,596,213 (\$957,500 to M.F. Anjos, \$1,818,100 to Theme led by M.F. Anjos)

Funders: NSERC and 12 industry, utility, and government partners

Principal Investigator: B. Venkatesh

Theme Leaders: M.F. Anjos, C.A. Cañizares, L. Chang, and F.H. Tezel

Other investigators: 21 other Canadian researchers

Canada Research Chair (2011–2016)

Amount: CAD\$500,000

Funder: Canada Research Chairs Program

Principal Investigator: M.F. Anjos.

Semidefinite-Programming-based Approaches for Hard Combinatorial Optimization Problems in Engineering: Modelling, Algorithms, and Applications (2010–2015)

Amount: CAD\$165,000

Funder: NSERC Discovery Program

Principal Investigator: M.F. Anjos

High Performance Optimization: Theory, Algorithm Design, and Engineering Applications (2008–2012)

Amount: CAD\$626,000 (\$91,200 to M.F. Anjos)

Funder: Mitacs Network of Centers of Excellence for the Mathematical Sciences

Principal Investigators: M.F. Anjos & A. Vannelli

Other investigators: 12 other Canadian researchers

Semidefinite Programming Approaches for Hard Combinatorial Optimization Problems (2005–2010)

Amount: CAD\$165,000

Funder: NSERC Discovery Program

Principal Investigator: M.F. Anjos

Electricity Market Simulation & Optimization Laboratory (EMSOL) (2005–2009)

Amount: CAD\$290,000 (\$145,000 to M.F. Anjos)

Funders: Canada Foundation for Innovation (CFI) New Opportunities, Ontario Research Fund - Research Infrastructure (ORF-RI)

Principal Investigators: M.F. Anjos & K. Bhattacharya.

Other Research Grants*Learning within Bilevel Optimization (LOBI)*

Amount: €18,000

Funders: Inria, IVADO

Principal Investigators: L. Brotcorne, G. Savard

Other investigators: 6 researchers including M.F. Anjos

The Electricity Demand-Response Potential of the Montreal Metropolitan Community: Assessment of Potential Impacts and Options (2018–2020)

Amount: CAD\$150,000 (\$50,000 to M.F. Anjos)

Funder: IVADO

Principal Investigator: F. Bouffard

Other investigators: M.F. Anjos, J.-Ph. Waaub

Challenging mixed integer nonlinear programming problems for maintenance planning for hydropower plants (2017–2019)

Amount: €18,000

Funder: Fondation Mathématique Jacques Hadamard
Principal Investigator: M.F. Anjos
Other investigators: C. d'Ambrosio, W. van Ackooij

Decomposition methods for maintenance planning of hydro-turbines (2016)

Amount: CAD\$24,900
Funder: NSERC Engage, Rio Tinto Alcan
Principal Investigator: M.F. Anjos

GERAD Research Center Operating Grant and Infrastructure Support (2015–2021)

Amount: CAD\$3,807,803 (\$46,000 to M.F. Anjos)
Funder: FRQNT Strategic Clusters, HEC Mtl, Polytechnique Mtl, McGill, UQAM
Principal Investigator: G. Desaulniers, director
Other investigators: GERAD members (64 researchers including M.F. Anjos)

Managing Energy Storage Capacities Dispersed in an Electrical Grid to Reduce the Effects of Renewable Energy Source Variability (2012–2016)

Amount: CAD\$1,061,000 (\$142,500 to M.F. Anjos)
Funder: Natural Resources Canada
Principal Investigators: R. Malhamé, F. Sirois
Other investigators: M.F. Anjos, M. Gendreau, M. Bernier, and B. Sansó

GERAD Research Center Operating Grant and Infrastructure Support (2011–2015)

Amount: CAD\$2,835,000 (\$20,000 to M.F. Anjos)
Funder: FRQNT Strategic Clusters, HEC Mtl, Polytechnique Mtl, McGill, UQAM
Principal Investigator: J.-Ph. Waaub, director
Other investigators: GERAD members (including M.F. Anjos)

Multi-Period Demand Forecasting for Networking Planning with Several Central Offices (2005–2007)

Amount: CAD\$235,000 (\$75,000 to M.F. Anjos)
Funder: Bell University Laboratories
Principal Investigator: H. Wolkowicz
Other investigators: M.F. Anjos and A. Vannelli

High Performance Optimization: Theory, Algorithm Design, and Engineering Applications (2006–2008)

Amount: CAD\$310,000 (\$50,000 to M.F. Anjos)
Funder: Mitacs Network of Centers of Excellence for the Mathematical Sciences
Principal Investigator: T. Terlaky
Other investigators: 12 other Canadian researchers including M.F. Anjos

New Interior Point Methods and Software for Convex Conic-Linear Optimization and Their Application to Solve VLSI Circuit Layout Problems (2005–2006)

Amount: CAD\$155,000 (\$5,000 to M.F. Anjos)
Funder: Mitacs Network of Centers of Excellence for the Mathematical Sciences
Principal Investigator: T. Terlaky
Other investigators: 11 other Canadian researchers including M.F. Anjos

High Performance Computing Equipment for Solving Semidefinite Programming Relaxations of Hard Combinatorial Optimization Problems (2005–2006)

Amount: CAD\$22,060

Funder: NSERC Research Tools and Instruments (Category I) Program

Principal Investigator: M.F. Anjos

Application of Semidefinite Programming to the Facility Layout Problem (2003–2004)

Amount: £21,930

Funder: University of Southampton, U.K.

Principal Investigator: M.F. Anjos

Application of Semidefinite Programming to the Facility Layout Problem (2003–2005)

Amount: £5,400

Funder: Nuffield Foundation, U.K.

Principal Investigator: M.F. Anjos

Academic Visitors for Extended Periods

Ms. Mahbubeh Habibian, University of Auckland, New Zealand (2015).

Prof. Steven A. Gabriel, University of Maryland - College Park, MD, USA (2015).

Prof. Manuel V.C. Vieira, Nova University of Lisbon, Portugal (every year since 2011).

Prof. Dr. Joaquim João Júdice, University of Coimbra, Portugal (2013, 2014).

Dr. Sourour Elloumi, École Nationale Supérieure d'Informatique pour l'Industrie et l'Entreprise, France (2013).

Prof. Xiao-Wen Chang, McGill University, Canada (academic year 2012–2013).

Prof. Alexander Engau, University of Colorado Denver, U.S.A. (2010, 2011, and 2012).

Prof. Philipp Hungerländer, University of Klagenfurt, Austria (2011).

Research Publications

Authored Book

1. M.F. Anjos and A.J. Conejo. *Unit Commitment in Electric Energy Systems*, Now Foundations and Trends, 2017, (ISBN 978-1-68083-370-6).
<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=8275570>

Edited Books

1. T. Terlaky, M.F. Anjos and S. Ahmed (eds.). *Advances and Trends in Optimization with Engineering Applications*, SIAM, 2017 (ISBN 978-1-6119-7467-6).
<http://bookstore.siam.org/mo24>
2. M.F. Anjos and J.B. Lasserre (eds.). *Handbook of Semidefinite, Conic and Polynomial Optimization: Theory, Algorithms, Software and Applications*. Springer, 2012 (ISBN 978-1-4614-0768-3). <http://www.springer.com/gp/book/9781461407683>

Journal Articles (Published or Accepted for Publication)

1. M.F. Anjos, A. Lodi, and M. Tanneau. *A Decentralized Framework for the Optimal Coordination of Distributed Energy Resources*. To appear in the IEEE Transactions on Power Systems (accepted August 2018).
2. T. Barbier, M.F. Anjos, F. Cirinei and G. Savard. *Fluid Arrivals Simulation for Choice Network Revenue Management*. To appear in the Journal of Revenue and Pricing Management (accepted August 2018).
3. J.A. Gómez-Herrera and M.F. Anjos. *Collaborative Demand-Response Planner for Smart Buildings*. Energy, 161, 2018, 370-380.
<https://doi.org/10.1016/j.energy.2018.07.132>
4. J.A. Gómez-Herrera and M.F. Anjos. *Optimization-Based Estimation of Power Capacity Profiles for Activity-Based Residential Loads*. International Journal of Electrical Power and Energy Systems, 104, 2019, 664-672.
<https://doi.org/10.1016/j.ijepes.2018.07.023>
5. C. Bingane, M.F. Anjos, and S. Le Digabel. *Tight-and-Cheap Conic Relaxation for the AC Optimal Power Flow Problem*. To appear in the IEEE Transactions on Power Systems (accepted June 2018). <https://doi.org/10.1109/TPWRS.2018.2848965>
6. J.A. Rodriguez, M.F. Anjos, P. Côté, and G. Desaulniers. *MILP Formulations for Generator Maintenance Scheduling in Hydropower Systems*. To appear in the IEEE Transactions on Power Systems (accepted April 2018).
<https://doi.org/10.1109/TPWRS.2018.2833061>
7. M.F. Anjos, A. Fischer, and P. Hungerländer. *Improved Exact Approaches for Row Layout Problems with Departments of Equal Length*. European Journal of Operational Research, 270(2), 2018, 514-529. <https://doi.org/10.1016/j.ejor.2018.04.008>

8. F. Djeumou Fomeni, S.A. Gabriel, and M.F. Anjos. *Applications of Logic Constrained Equilibria to Traffic Networks and to Power Systems with Storage*. To appear in the Journal of the Operational Research Society (accepted February 2018).
<http://doi.org/10.1080/01605682.2018.1438761>
9. V.J. Rodrigues de Sousa, M.F. Anjos and S. Le Digabel. *Computational Study of Valid Inequalities for the Maximum k -Cut Problem*. Annals of Operations Research, 265(1), 2018, 5-27. <http://dx.doi.org/10.1007/s10479-017-2448-9>
10. M.F. Anjos and M.V.C. Vieira. *Mathematical Optimization Approaches for Facility Layout Problems: The State-of-the-Art and Future Research Directions* (invited review). European Journal of Operational Research, 261(1), 2017, 1-16.
<http://dx.doi.org/10.1016/j.ejor.2017.01.049>
11. J.A. Gómez and M.F. Anjos. *Power Capacity Profile Estimation for Building Heating and Cooling in Demand Side Management*. Applied Energy, 191, 2017, 492-501.
<http://dx.doi.org/10.1016/j.apenergy.2017.01.064>
12. A. Engau and M.F. Anjos. *Convergence and Polynomiality of Primal-Dual Interior-Point Algorithms for Linear Programming with Selective Addition of Inequalities*. Optimization, 66(12), 2017, 2063-2086. <http://dx.doi.org/10.1080/02331934.2016.1244268>
13. M.F. Anjos and M.V.C. Vieira. *On Semidefinite Least Squares and Minimal Unsatisfiability*. Discrete Applied Mathematics, 217(2), 2017, 79-96.
<http://dx.doi.org/10.1016/j.dam.2016.09.008>
14. M.F. Anjos and M.V.C. Vieira. *An Improved Two-Stage Optimization-Based Framework for Unequal-Areas Facility Layout*. Optimization Letters, 10(7), 2016, 1379-1392.
<http://dx.doi.org/10.1007/s11590-016-1008-6>
15. E. Adams, M.F. Anjos, F. Rendl, and A. Wiegele. *A Hierarchy of Subgraph Projection-Based Semidefinite Relaxations for some NP-Hard Graph Optimization Problems*. INFOR, 53(1), 2016, 40-48. <http://dx.doi.org/10.3138/infor.53.1.40>
16. B. Ghaddar, J.C. Vera, and M.F. Anjos. *A Dynamic Inequality Generation Scheme for Polynomial Programming*. Mathematical Programming, 156(1), 2016, 21-57.
<http://dx.doi.org/10.1007/s10107-015-0870-9>
17. M. Manickavasagam, M.F. Anjos, and W.D. Rosehart. *Sensitivity-Based Chance-Constrained Generation Expansion Planning*. Electric Power Systems Research, 127, 2015, 32-40. <http://dx.doi.org/10.1016/j.epsr.2015.05.011>
18. F. Gilbert, M.F. Anjos, P. Marcotte, and G. Savard. *Optimal Design of Bilateral Contracts for Energy Procurement*. European Journal of Operational Research, 246, 2015, 641-650. <http://dx.doi.org/10.1016/j.ejor.2015.04.050>
19. P. Hungerländer and M.F. Anjos. *A Semidefinite Optimization-Based Approach for Global Optimization of Multi-Row Facility Layout*. European Journal of Operational Research, 245, 2015, 46-61. <http://dx.doi.org/10.1016/j.ejor.2015.02.049>

20. J. Ostrowski, M.F. Anjos, and A. Vannelli. *Modified Orbital Branching for Structured Symmetry with an Application to Unit Commitment*. Mathematical Programming, 150(1), 2015, 99-129. <http://dx.doi.org/10.1007/s10107-014-0812-y>
21. M.F. Anjos, X.-W. Chang, and W.-Y. Ku. *Lattice Preconditioning for the Real Relaxation Branch-and-Bound Approach for Integer Least Squares Problems*. Journal of Global Optimization, 59(2-3), 2014, 227-242. <http://dx.doi.org/10.1007/s10898-014-0148-4>
22. M.F. Anjos and M.V.C. Vieira. *Semidefinite Resolution and Exactness of Semidefinite Relaxations for Satisfiability*. Discrete Applied Mathematics, 161, 2013, 2812-2826. <http://dx.doi.org/10.1016/j.dam.2013.06.021>
23. S. Bernardi and M.F. Anjos. *A Two-Stage Mathematical-Programming Method for the Multi-Floor Facility Layout Problem*. Journal of the Operational Research Society, 64, 2013, 352-364. <http://dx.doi.org/10.1057/jors.2012.49>
24. A. Engau, M.F. Anjos and I.M. Bomze. *Constraint Selection in a Build-Up Interior-Point Cutting-Plane Method for Solving Relaxations of the Stable-Set Problem*. Mathematical Methods of Operations Research, 78(1), 2013, 35-59. <http://dx.doi.org/10.1007/s00186-013-0431-z>
25. G.T. Costanzo, G. Zhu, M.F. Anjos, and G. Savard. *A System Architecture for Autonomous Demand Side Load Management in the Smart Grid*. IEEE Transactions on Smart Grid, 3(4), 2012, 2157-2165. <http://dx.doi.org/10.1109/TSG.2012.2217358>
26. A. Engau, M.F. Anjos, and A. Vannelli. *On Handling Cutting Planes in Interior-Point Methods for Solving Semidefinite Relaxations of Binary Quadratic Optimization Problems*. Optimization Methods and Software, 27(3), 2012, 539-559. <http://dx.doi.org/10.1080/10556788.2010.544308>
27. J. Ostrowski, M.F. Anjos, and A. Vannelli. *Tight Mixed Integer Linear Programming Formulations for the Unit Commitment Problem*. IEEE Transactions on Power Systems, 27(1), 2012, 39-46. <https://doi.org/10.1109/TPWRS.2011.2162008>
This is a **Web of Science Highly Cited Paper: top 1% of Engineering papers published in 2012**.
28. A. Alfakih, M.F. Anjos, V. Piccialli, and H. Wolkowicz. *Euclidean Distance Matrices, Semidefinite Programming, and Sensor Network Localization*. Portugaliae Mathematica, 68(1), 2011, 53-102 (invited survey). <http://dx.doi.org/10.4171/PM/1881>
29. B. Ghaddar, M.F. Anjos, and F. Liers. *A Branch-and-Cut Algorithm Based on Semidefinite Programming for the Minimum k -Partition Problem*. Annals of Operations Research, 188, 2011, 155-174.
30. B. Ghaddar, J.C. Vera, and M.F. Anjos. *Second-Order Cone Relaxations for Binary Quadratic Polynomial Programs*. SIAM Journal on Optimization, 21(1), 2011, 391-414.

31. I. Jankovits, C. Luo, M.F. Anjos, and A. Vannelli. *A Convex Optimisation Framework for the Unequal-Areas Facility Layout Problem*. European Journal of Operational Research, 214(2), 2011, 199-215.
32. A. Engau, M.F. Anjos, and A. Vannelli. *On Interior-Point Warmstarts for Linear and Combinatorial Optimization*. SIAM Journal on Optimization, 20(4), 2010, 1828-1861. This paper earned Engau the **2009 Mitacs Best Student Paper Award**.
33. A. Engau, M.F. Anjos, and A. Vannelli. *An Improved Interior-Point Cutting-Plane Method for Binary Quadratic Optimization*. Electronic Notes in Discrete Mathematics, 36, 2010, 743-750.
34. M.F. Anjos and G. Yen. *Provably Near-Optimal Solutions for Very Large Single-Row Facility Layout Problems* (invited paper). Optimization Methods and Software, 24(4), 2009, 805-817.
35. M.F. Anjos and A. Vannelli. *Computing Globally Optimal Solutions for Single-Row Layout Problems Using Semidefinite Programming and Cutting Planes*. INFORMS Journal on Computing, 20(4), 2008, 611-617.
36. I. El-Samahy, K. Bhattacharya, C. Cañizares, M.F. Anjos, and J. Pan. *A Procurement Market Model for Reactive Power Services Considering System Security*. IEEE Transactions on Power Systems, 23(1), 2008, 137-149. This paper earned El-Samahy the **2007 Mitacs Best Novel Use of Mathematics in Technology Transfer Award**.
37. K. Vorwerk, A. Kennings, and M.F. Anjos. *VLSI Floorplan Repair Using Dynamic Whitespace Management, Constraint Graphs, and Linear Programming*. Engineering Optimization, 40(6), 2008, 559-577.
38. C. Luo, M.F. Anjos, and A. Vannelli. *A Nonlinear Optimization Methodology for VLSI Fixed-Outline Floorplanning*. Journal of Combinatorial Optimization, 16(4), 2008, 378-401 (invited paper).
39. M.F. Anjos. *An Extended Semidefinite Relaxation for Satisfiability*. Journal on Satisfiability, Boolean Modeling and Computation, 4, 2007, 15-31.
40. M.F. Anjos and S. Burer. *On Handling Free Variables in Interior-Point Methods for Conic Linear Optimization*. SIAM Journal on Optimization, 18(4), 2007, 1310-1325.
41. G. Bautista, M.F. Anjos, and A. Vannelli. *Numerical Study of Affine Supply Function Equilibrium in AC Network-Constrained Markets*. IEEE Transactions on Power Systems, 22(3), 2007, 1174-1184.
42. G. Bautista, M.F. Anjos, and A. Vannelli. *Modeling Market Power in Electricity Markets: Is the Devil Only in the Details?* The Electricity Journal, 20(2), 2007, 82-92.

43. G. Bautista, M.F. Anjos, and A. Vannelli. *Formulation of Oligopolistic Competition in AC Power Networks: An NLP Approach*. IEEE Transactions on Power Systems, 22(1), 2007, 105-115.
This paper earned Bautista the **2006 Mitacs Best Student Paper Award**.
This paper was a **Selected Prize Paper in Power System Analysis and Economics** at the 2012 IEEE Power & Energy Society General Meeting.
44. M.F. Anjos. *An Explicit Semidefinite Characterization of Satisfiability for Tseitin Instances on Toroidal Grid Graphs*. Annals of Mathematics and Artificial Intelligence, 48(1-2), 2006, 1-14.
45. M.F. Anjos and A. Vannelli. *A New Mathematical Programming Framework for Facility Layout Design*. INFORMS Journal on Computing, 18(1), 2006, 111-118.
46. M.F. Anjos. *An Improved Semidefinite Programming Relaxation for the Satisfiability Problem*. Mathematical Programming, 102(3), 2005, 589-608.
47. M.F. Anjos. *Semidefinite Optimization Approaches for Satisfiability and Maximum-Satisfiability Problems*. Journal on Satisfiability, Boolean Modeling and Computation, 1, 2005, 1-47 (invited survey).
48. M.F. Anjos, C.S.M. Currie, and R.C.H. Cheng. *Optimal Pricing Policies for Perishable Products*. European Journal of Operational Research, 166(1), 2005, 246-254.
49. M.F. Anjos, A. Kennings, and A. Vannelli. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*. Discrete Optimization, 2(2), 2005, 113-122.
This paper was a **Top-10 Cited Paper** in the journal Discrete Optimization for the period 2005-2010.
50. M.F. Anjos. *On Semidefinite Programming Relaxations for the Satisfiability Problem*. Mathematical Methods of Operations Research, 60(3), 2004, 349-367.
51. M.F. Anjos, C.S.M. Currie, and R.C.H. Cheng. *Maximising Revenue in the Airline Industry Under One-Way Pricing*. Journal of the Operational Research Society, 55(5), 2004, 535-541.
52. M.F. Anjos and H. Wolkowicz. *Strengthened Semidefinite Relaxations via a Second Lifting for the Max-Cut Problem*. Discrete Applied Mathematics, 119(1-2), 2002, 79-106.
53. M.F. Anjos and H. Wolkowicz. *Geometry of Semidefinite Max-Cut Relaxations via Matrix Ranks*. Journal of Combinatorial Optimization, 6(3), 2002, 237-270.
54. M.F. Anjos and A. Vannelli. *An Attractor-Repeller Approach to Floorplanning*. Mathematical Methods of Operations Research, 56(1), 2002, 3-27.
55. H. Wolkowicz and M.F. Anjos. *Semidefinite Programming for Discrete Optimization and Matrix Completion Problems*. Discrete Applied Mathematics, 123(1-3), 2002, 513-577.

56. M.F. Anjos. *A Modified Broyden Update with Interpolation*. SIAM Journal on Scientific Computing, 14(6), 1993, 1359-1367.

Research Reports Submitted for Publication

1. M.F. Anjos and J. Neto. *Spectral Bounds for Graph Partitioning*. Submitted in September 2018 to Discrete Applied Mathematics.
2. M.D. de Souza Dutra, M.F. Anjos, and S. Le Digabel. *Balancing realism and complexity: An accurate optimization model for electricity usage in smart homes*. Submitted in September 2018 to the International Journal of Energy Research.
3. M.F. Anjos, M. Besançon, L. Brotcorne, and J.A. Gómez-Herrera. *A Bilevel Framework for Optimal Price-Setting of Time-and-Level-of-Use Tariffs*. Submitted in August 2018 to the IEEE Transactions on Power Systems.
4. M.F. Anjos, B. Gendron, and M. Joyce-Moniz. *Optimal Planning of Large-Scale Deployment of Charging Stations for Increasing Electric Vehicle Adoption*. Submitted in August 2018 to the European Journal of Operational Research.
5. M.F. Anjos and M.V.C. Vieira. *Mathematical Optimization Approaches for Facility Layout on Several Rows*. Submitted in July 2018 to the European Journal of Operational Research.
6. M. Habibiyan, G. Zakeri, A. Downward, M.F. Anjos, and M. Ferris. *Co-optimization of Demand Response and Interruptible Load Reserve Offers for a Price-Making Major Consumer*. Submitted in May 2018 to Energy Systems.
7. T. Barbier, M.F. Anjos, F. Cirinei and G. Savard. *Product-Closing Approximation for Nonparametric Choice Network Revenue Management*. Submitted in May 2018 to the European Journal of Operational Research.
8. T. Barbier, M.F. Anjos, F. Cirinei and G. Savard. *Buying Graph for Choice Network Revenue Management*. Submitted in May 2018 to Operations Research.
9. J.A. Rodriguez, M.F. Anjos, P. Côté, and G. Desaulniers. *Stochastic Hydropower Generator Maintenance Scheduling via Benders Decomposition*. Submitted in April 2018 to the European Journal of Operational Research.
10. V.J. Rodrigues de Sousa, M.F. Anjos, and S. Le Digabel. *Improving the linear relaxation of maximum k -cut with semidefinite-based constraints*. Submitted in April 2018 to the EURO Journal on Computational Optimization.
11. M.F. Anjos and J. Neto. *A Class of Spectral Bounds for Max k -Cut*. Submitted in June 2018 to Discrete Applied Mathematics.
12. A.I. Tammam, M.F. Anjos and M. Gendreau. *Balancing Supply and Demand in the Presence of Renewable Generation via Demand Response for Electric Water Heaters*. Submitted in November 2017 to Annals of Operations Research.

13. F. Djeumou Fomeni, S.A. Gabriel, and M.F. Anjos. *An RLT Approach for Solving the Binary-Constrained Mixed Linear Complementarity Problem*. Submitted in September 2017 to Computers & Operations Research; revised March 2018.
14. A. Barbry, M.F. Anjos, and E. Delage. *Robust self-scheduling of a price-maker energy storage facility in the New York electricity market*. Submitted in May 2017 to Energy Economics; revised July 2018.

Refereed Book Chapters

1. J.C. Góez and M.F. Anjos. *Second Order Conic Optimization Formulations for Service System Design Problems with Congestion*. Accepted for publication in *Modeling and Optimization: Theory and Applications*.
2. M.F. Anjos and J.A. Gómez. *Operations Research Approaches for Building Demand Response in a Smart Grid*. In: *Leading Developments from INFORMS Communities*, R. Batta and J. Peng (eds.), INFORMS, 2017, 131-152.
3. E. Adams and M.F. Anjos. *Exact Separation of k -Projection Polytope Constraints*. In: *Modeling and Optimization: Theory and Applications*, M. Takáč and T. Terlaky (eds.), Springer Proceedings in Mathematics & Statistics, vol 213, 2017, 119-141.
4. M.F. Anjos. *Conic Linear Optimization*. In: *Advances and Trends in Optimization with Engineering Applications*, SIAM, 2017, 107-120.
5. M.F. Anjos. *Optimization for Power Systems and the Smart Grid* (invited chapter). In: *Modeling and Optimization: Theory and Applications*, B. Defourny and T. Terlaky (eds.), Springer, 2015, 29-47.
6. M.F. Anjos. *Recent Progress in Modeling Unit Commitment Problems* (invited chapter). In: *Modeling and Optimization: Theory and Applications*, L.F. Zuluaga and T. Terlaky (eds.), Springer, 2013, 1-29.
7. M.F. Anjos, B. Ghaddar, L. Hupp, F. Liers, and A. Wiegele. *Solving k -way Graph Partitioning Problems to Optimality: The Impact of Semidefinite Relaxations and the Bundle Method* (invited chapter). In: *Facets of Combinatorial Optimization - Festschrift for Martin Grötschel*, M. Jünger and G. Reinelt (eds.), Springer, 2013, 355-386.
8. M.F. Anjos, F. Liers, G. Pardella, and A. Schmutzer. *Engineering Branch-and-Cut Algorithms for the Equicut Problem* (invited chapter). In: *Discrete Geometry and Optimization*, A. Deza, K. Bezdek and Y. Ye (eds.), Fields Institute Communications, Vol. 69, Springer, 2013, 17-32.
9. M.F. Anjos and J.B. Lasserre. *Introduction to Semidefinite, Conic and Polynomial Optimization*. In: *Handbook on Semidefinite, Conic and Polynomial Optimization*, M.F. Anjos and J.B. Lasserre (eds.), International Series in Operations Research & Management Science, Frederick S. Hillier (ed.), Springer, 2012, 1-22.

10. M.F. Anjos and F. Liers. *Global Approaches for Facility Layout and VLSI Floorplanning*. In: *Handbook on Semidefinite, Conic and Polynomial Optimization*, M.F. Anjos and J.B. Lasserre (eds.), International Series in Operations Research & Management Science, Frederick S. Hillier (ed.), Springer, 2012, 849-877.
11. M.F. Anjos. *Progress in Semidefinite Optimization Techniques for Satisfiability* (invited chapter). In: *Progress in Combinatorial Optimization*, A.R. Mahjoub (ed.), Wiley-ISTE, 2011, 489-520.
12. M.F. Anjos. *A History of Satisfiability - Nonlinear Formulations* (invited chapter section). In: *Handbook on Satisfiability*, A. Biere, M. Heule, H. van Maaren, and T. Walsh (eds.), IOS Press, 2009, 45-49.
13. A. Engau, M.F. Anjos, and A. Vannelli. *A Primal-Dual Slack Approach to Warmstarting Interior-Point Methods for Linear Programming*. In: *Operations Research and Cyber-Infrastructure*, J.W. Chinneck, B. Kristjansson, M.J. Saltzman (eds.), Springer-Verlag, 2009, 195-217.

Refereed Conference Proceedings

1. M.F. Anjos, P. Hungerländer, and K. Maier. *An Integer Linear Programming Approach for the Combined Cell Layout Problem*. Accepted in July 2018 for the Proceedings of the 2018 IEEE International Conference on Industrial Engineering and Engineering Management.
2. A.I. Tammam, C.S. Watters, M.F. Anjos, and M. Gendreau. *A Methodology for Ensemble Wind Power Scenarios Generation From Numerical Weather Predictions*. In: Proceedings of the IEEE PES General Meeting 2016.
3. M.F. Anjos, A. Fischer, and P. Hungerländer. *Solution Approaches for the Double-Row Equidistant Facility Layout Problem*. In: Lübbecke M., Koster A., Letmathe P., Madlener R., Peis B., Walther G. (eds) Operations Research Proceedings 2014 (GOR: Gesellschaft für Operations Research e.V.). Springer, Cham, 17-23.
4. M. Manickavasagam, M. Hajian, M.F. Anjos, and W.D. Rosehart. *Chance-Constrained Generation Expansion Planning Based on Iterative Risk Allocation*. In: Proceedings of IREP IX Bulk Power System Dynamics and Control Symposium, 2013.
5. G.T. Costanzo, A.M. Kosek, G. Zhu, L. Ferrarini, M.F. Anjos, and G. Savard. *An Experimental Study on Load-Peak Shaving in Smart Homes by Means of Online Admission Control*. In: Proceedings of IEEE PES Innovative Smart Grid Technologies (ISGT) Europe Conference, 2013.
6. B. Ghaddar, J.C. Vera, and M.F. Anjos. *An Iterative Scheme for Valid Polynomial Inequality Generation in Binary Polynomial Programming* In: Proceedings of the 15th Conference on Integer Programming and Combinatorial Optimization (IPCO XV), Lecture Notes in Computer Science Vol. 6655, 2011, 207-222.

7. J. Ostrowski, M.F. Anjos, and A. Vannelli. *Tight Mixed Integer Linear Programming Formulations for Generator Self-Scheduling*. In: Proceedings of IEEE Canadian Conference on Electrical and Computer Engineering 2010.
8. C. Luo, M.F. Anjos, and A. Vannelli. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization Techniques*. In: Proceedings of ASP-DAC 2008, 198-203.
9. M.F. Anjos, M. Desroches, A. Haque, O. Grodzevich, H. Wei, and H. Wolkowicz. *Multi-Stage Investment Decision under Contingent Demand for Networking Planning*. In: Proceedings of IEEE Global Telecommunications Conference (Globecom) 2006, 1-5.

Other Conference Proceedings

1. P. Hungerländer and M.F. Anjos. *An Exact Approach for the Combined Cell Layout Problem*. In: Operations Research Proceedings 2012, Springer-Verlag, 2014, 275-281.
2. R.J. Avalos, C.A. Cañizares, and M.F. Anjos. *A Practical Voltage-Stability-Constrained Optimal Power Flow*. In: Proceedings of Power Engineering Society (PES) General Meeting 2009, 1-6.
3. G. Bautista, M.F. Anjos, and A. Vannelli. *Beyond the Use of Linear Approximations for Modelling Nash-Cournot Equilibria*. In: Proceedings of IEEE PowerTech 2007 Conference, 2008, 831-836.
4. G. Bautista, M.F. Anjos, and A. Vannelli. *Analysis of Market Power Using an AC Transmission System*. In: Proceedings of Power Systems Conference & Exposition (PSCE), 2006, 677-682.
5. M.F. Anjos and A. Vannelli. *On the Computational Performance of a Semidefinite Programming Approach to Single Row Layout Problems*. In: Proceedings of Operations Research 2005, Springer-Verlag, 2006, 277-282.
6. M.F. Anjos, P.L. Takouda, and A. Vannelli. *Global Lower Bounds for the VLSI Macrocell Floorplanning Problem*. In: Proceedings of the Fifth International Workshop System-on-Chip for Real-Time Applications (IWSOC), 2005, 275-280.
7. M.F. Anjos. *Proofs of Unsatisfiability Using Semidefinite Programming*. In: Operations Research Proceedings 2003, Springer-Verlag, 2004, 308-315.
8. M.F. Anjos, C.S.M. Currie, and R.C.H. Cheng. *Revenue Management for Perishable Products Using Simulation*. In: Proceedings of the Sixth United Kingdom Simulation Society Conference, 2003, 114-120.
9. M.F. Anjos and H. Wolkowicz. *Strengthened Semidefinite Programming Relaxations for the Max-Cut Problem*. In: Proceedings of the International Conference on Advances in Convex Analysis and Global Optimization, Kluwer, 2001, 409-420.

Honors BSc Project

Solving the Generalized Symmetric Eigenvalue Problem, School of Computer Science,
McGill University, December 1991 (research work with S. Hammarling and C.C. Paige).

Other Research-Related Publications

1. M.D. de Souza Dutra, M.F. Anjos, and S. Le Digabel. *An Optimization Model for Electricity Usage in Smart Homes*. Cahier du GERAD G-2018-06, February 2018.
2. E. Adams, M. Peyrega, and M.F. Anjos. *Time-Ahead Pricing of Energy Supply*. Cahier du GERAD G-2014-73, September 2014.
3. M.F. Anjos. *Proofs of Unsatisfiability Via Semidefinite Programming*. EUROPT Newsletter #17, October 2009, 18-23.

Science Communication

White Papers on Energy Policy

1. E. Lachapelle, R. Nadeau, S. Guertin-Armstrong, L. Beaumier, and M.F. Anjos. *Feeling the Heat? The Paradox of Public Opinion and Climate Change Policy in Canada* (also translated into French). Trottier Energy Institute, December 2015, 20 pages. Available at http://www.polymtl.ca/iet/doc/Feeling-the-Heat_eng_20151203.pdf.
2. N. de Marcellis-Warin, I. Peignier, M.H. Bui, M.F. Anjos, S.A. Gabriel, and C. Guerra. *L'énergie et les changements climatiques: Perceptions québécoises* (Energy and climate change: Quebec's perceptions; in French). Trottier Energy Institute, May 2015, 52 pages. Available at http://www.polymtl.ca/iet/doc/ChangementsClimatiques_FR_web-Aout15.pdf.
3. M.F. Anjos, S.A. Gabriel, and C. Guerra. *Energy in Quebec and in Canada: A Conversation Starter* (also translated into French). Trottier Energy Institute, February 2015, 34 pages. Available at https://www.mcgill.ca/tised/files/tised/energy_in_quebec_and_canada_-_a_conversation_starter_-_eng.pdf.
4. N. Mousseau plus 18 others including M.F. Anjos. *Elements of an Eastern Canada Energy Strategy* (also translated into French). December 2014, 8 pages. Available at http://normandmousseau.com/IMG/pdf/white_paper_easterncanada.pdf.
5. V. Lalande, T. Gervais, and M.F. Anjos. *Vers un Québec autonome et 100% énergie propre* (Toward a self-sufficient Quebec with 100% clean energy; in French). Submitted to the Commission sur les enjeux énergétiques du Québec, October 2013, 21 pages. Available at https://www.mcgill.ca/tised/files/tised/memoire_iet_tised_-_oct_2013_final_fr.pdf.

Organization of Public Events

1. *Reducing GHG Emissions in Canada: A Formidable Challenge*. Symposium unveiling the results of the Trottier Energy Futures Project (TEFP), organized jointly with the Canadian Academy of Engineering and the David Suzuki Foundation, Polytechnique Montreal, 5 April 2016.
2. Symposium on *Efficacité énergétique et bioraffinage forestier : Pour une utilisation durable de la forêt* (Energy efficiency and forest biorefinery: For a sustainable use of forests; in French). Centre Mont-Royal, Montreal, 4 February 2016.
3. Symposium on *L'énergie et les changements climatiques : portrait des perceptions québécoises* (Energy and climate change: a portrait of Quebecers' perceptions; in French), organized jointly with the Centre interuniversitaire de recherche en analyse des organisations (CIRANO), Polytechnique Montreal, 27 May 2015.
4. *Energy in Quebec and Canada: A Conversation Starter*. Second Annual Trottier Symposium on Sustainable Engineering, Energy and Design, organized jointly with the Trottier Institute for Sustainability in Engineering and Design (TISED), Polytechnique Montreal, 30–31 March 2015.

5. Pre-symposium seminar on *L'énergie au Québec et au Canada : Un document pour engager la conversation* (Energy in Quebec and Canada: A Conversation Starter; in French). Polytechnique Montreal, 26 March 2015.
6. Symposium on *Energy Perspectives in Germany and Europe*, organized jointly with the Waterloo Institute for Sustainable Energy, Polytechnique Montreal, 10 December 2014.
7. Symposium on *Les énergies renouvelables peuvent-elles devenir la principale source d'électricité au Canada et aux États-Unis?* (Can renewables become the main source of power in Canada and the United States?; in French), organized jointly with the Trottier Institute for Sustainability in Engineering and Design (TISED), Polytechnique Montreal and McGill University, 24–25 September 2014.
8. *Engineering our prosperity: Sustainable cities and industries in the 21st century*. Inaugural Trottier Symposium on Sustainable Engineering, Energy and Design, McGill University, 17–18 March 2014.
9. Symposium on *Vers un Québec 100% énergie propre* (Towards a 100% clean energy Quebec; in French). Inaugural event of the Trottier Energy Institute, Polytechnique Montreal, 14 May 2013.

Short Articles

1. M.F. Anjos. *Agregação ótima para gestão do consumo elétrico em redes inteligentes* (Optimal Aggregation for Electric Consumption Management in Smart Grids; in Portuguese). Boletim APDIO, #57, Semester 2, 2017.
2. M.F. Anjos. *Portugueses em IO Pelo Mundo: Miguel Anjos* (Portuguese in OR Around the World: Miguel Anjos; in Portuguese). Boletim APDIO #51, Semester 2, 2014.
3. M.F. Anjos. *Keeping the Lights On*. GERAD Newsletter #8(2), November 2011.
4. M.F. Anjos. *A Major Challenge: Warmstarting Interior-Point Methods*. GERAD Newsletter #8(1), May 2011.
5. M.F. Anjos. *Viver a mobilidade académica* (Experiencing Academic Mobility; in Portuguese). Educação e Emprego #2, Julho-Setembro 2011.
6. M.F. Anjos. *Book Review: Convex Optimization*. Journal of the Operational Research Society 58(8), pp. 1118-1119, 2007.
7. T. Terlaky and M.F. Anjos. *High Performance Optimization: Theory, Algorithm Design and Engineering Applications*. Mitacs Connections Newsletter, October 2006.
8. M.F. Anjos. *Book Review: Graph Drawing Software*. Journal of the Operational Research Society 56(5), p. 616, 2005.
9. M.F. Anjos. *Book Review: Stable Parametric Programming*. Journal of the Operational Research Society 55(1), pp. 97-98, 2004.

Radio and Newspaper Interviews

1. *Quebecers Sound Off on Energy and Global Warming*. Montreal Gazette, 27 May 2015.
2. *Les enjeux énergétiques intéressent peu les gens* (Energy Issues are of Little Interest to the General Public; in French). Le Journal de Montréal, 27 May 2015.
3. *Les Québécois manquent de connaissances en matière d'énergie* (Quebecers Lack Knowledge About Energy; in French). Journal Métro, 27 May 2015.
4. *L'énergie a son institut* (Energy has an Institute; in French). PLAN, the magazine of the Ordre des ingénieurs du Québec, June-July 2014, pages 40-42.
5. *Polytechnique Montréal : du nouveau pour le génie énergétique* (Polytechnique Montreal: New Developments in Energy Engineering; in French). La Presse, 14 Aug 2013.

Teaching Experience

Teaching Awards

Best Teacher Award at the DTU CEE Summer School on Optimization in Energy, Copenhagen, Denmark, 2018.

Méritas Teaching Award for Best Teacher of Graduate-level Mathematics, Polytechnique Montreal, 2011–2012.

Course Development

ENE 8203: Modélisation techno-économique des systèmes énergétiques

An advanced undergraduate and introductory graduate course on energy technology modelling of energy systems.

This course was proposed and created for Polytechnique Montreal's new energy engineering programs. Starting with 10 students when first offered in Fall 2013, it now attracts around 50 students per term.

Course Delivery

Polytechnique Montreal

MTH 1006: Algèbre linéaire

An introductory undergraduate course on linear algebra. Class size is around 70 students.

MTH 1101: Calcul I

A first calculus course for undergraduates. Class size is around 70 students.

MTH 6408A / MTH 8408: Méthodes d'optimisation et contrôle optimal

An advanced undergraduate and introductory graduate course on optimization and control theory. Class size is around 25 students.

MTH 6416: Optimisation avancée

A research-level topics course on optimization. Class size is around 5 students.

University of Waterloo

MATH 127: Calculus 1

First part of a first-year two-course calculus sequence geared at science students .

MSCI 331: Introduction to Optimization

An introductory undergraduate course on optimization.

MSCI 432: Production and Operations Management

An introductory undergraduate course on supply-chain management.

MSCI 603: Principles of Operations Research

An introductory Masters-level course on operations research, required for every graduate student in Management Sciences.

MSCI 633: Production and Inventory Management

An introductory Masters-level course on supply-chain management.

MSCI 700: Semidefinite Programming - Models, Algorithms and Computation

A doctoral-level course on mathematical optimization.

University of Southampton

MATH6002: Deterministic Methods of Operational Research

An introductory Masters-level course on operations research, required for every MSc student.

MATH6012: Mathematical Programming

An advanced Masters-level course on optimization.

MATH1002: Applications of Mathematics

An introduction to applied mathematics for first-year mathematics students.

MATH2037: Computer Tools in Operational Research

A course on the use of software packages to solve operations research models.

Wilfrid Laurier University

MA130: Calculus for Students of Business and Economics

A one-term calculus course for first-year students with an emphasis on economic models and applications.

McGill University

308-350A: Numerical Analysis

An introductory undergraduate course in numerical analysis, compulsory for Computer Science students.

308-530A: Formal Languages

A graduate-level course in the theory of computation.

Research Supervision

Postdoctoral Researchers

1. Elizaveta Kuznetsova (since August 2018).
Dr. Kuznetsova is supported by an IVADO Postdoctoral Scholarship.
2. Vilmar Jefté Rodrigues de Sousa (since June 2018).
3. Kristen R. Schell (since May 2018).
Dr. Schell is supported by an IVADO Postdoctoral Scholarship.
4. Martim Joyce-Moniz (co-supervised with B. Gendron since May 2017).
Dr. Joyce-Moniz is supported by an IVADO Postdoctoral Scholarship.
He was awarded the Dissertation Award for Operations Research in Network Analytics and Telecommunications, from the INFORMS Technical Section on Telecommunications.
5. Zhao Sun (co-supervised with A. Lodi, September 2015 – August 2016).
Dr. Sun is now a developer of financial software at Symetrics.
6. Franklin Djeumou Fomeni (September 2014 – August 2016).
Dr. Fomeni was awarded a 2014 GERAD Postdoctoral Scholarship.
He is now a Research Associate at Lancaster University, U.K.
7. Julio C. Góez (November 2013 – November 2015).
Dr. Góez was awarded a 2013 GERAD Postdoctoral Scholarship.
He is now Post Doktor (similar to Assistant Professor) at the Norwegian School of Economics, Norway.
8. François Gilbert (co-supervised with G. Savard, September 2011 – May 2014).
Dr. Gilbert is now at Argonne National Laboratories, U.S.A.
9. James Ostrowski (co-supervised with A. Vannelli, January 2009 – November 2010).
Dr. Ostrowski is now an Assistant Professor at the University of Tennessee-Knoxville, U.S.A.
10. Alexander Engau (co-supervised with A. Vannelli, August 2007 – July 2009).
Dr. Engau was awarded the Best Poster Prize at MOPTA 2008, and the Second Poster Prize at the Mitacs Conference 2009.
Dr. Engau is now an Associate Professor at Dalhousie University.
11. Juan C. Vera Lizcano (September 2007 – August 2008).
Dr. Vera Lizcano is now an Associate Professor at Tilburg University, The Netherlands.
12. Johannes Hatzl (November 2006 – August 2007).
Dr. Hatzl is now Universitaetsdozent at the Graz University of Technology, Austria.

13. Guillermo Bautista (co-supervised with A. Vannelli, August 2005 – May 2007).
Dr. Bautista was awarded a Mitacs Best Student Paper 2006 Prize for the paper *Formulation of Oligopolistic Competition in AC Power Networks: An NLP Approach* (co-authored with M.F. Anjos and A. Vannelli).
Dr. Bautista is now Director of Market Analysis and Forecasting at the California Independent System Operator.
14. Matthias P.L. Takouda (September 2003 – August 2005).
Dr. Takouda is now an Associate Professor and Department Chair at Laurentian University, Canada.

Doctoral Students

1. Julie Sliwak, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with L. Letocart (since August 2018).
2. Éloïse Edom, PhD student in Industrial Engineering at Polytechnique Montreal, co-supervised with G. Desaulniers and P. Côté (since May 2018).
3. Neda Etebari Alamdari, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with G. Savard (since January 2018).
4. Mathieu Besançon, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with L. Brotcorne (since September 2017).
5. Vinicius Neves Motta, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with M. Gendreau (since September 2017).
6. Mariana Faria Pires Gama Rocha, PhD student in Industrial Engineering at Polytechnique Montreal (since September 2016).
7. Mathieu Tanneau, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with A. Lodi (since September 2015).
Mr. Tanneau was awarded a highly competitive Merit Scholarship for Foreign Students (PBEEE) by the FRQNT for 2018–2021, and an Electric Power Research Institute (EPRI) Full Scholarship to attend the ESA 27th Annual Conference and Expo 2017.
8. Michael David De Souza Dutra, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with S. Le Digabel (since September 2015).
Mr. De Souza Dutra is supported by a Ciência sem Fronteiras scholarship.
9. Christian Bingane, PhD student in Engineering Mathematics at Polytechnique Montreal, co-supervised with S. Le Digabel (since January 2015).
10. Ahmed Chaouachi, PhD student in Operations Research at University of Montreal, co-supervised with P. Marcotte (since September 2012).

11. Thibault Barbier (PhD in Industrial Engineering, Polytechnique Montreal, 2018).
Thesis title: *Optimisation et simulation pour le problème de disponibilité de l'offre sous comportement d'achat* (co-supervised with G. Savard).
Dr. Barbier was awarded a BMP Innovation Scholarship for 2014-2017, in partnership with ExPretio Technologies Inc.
After graduating, Dr. Barbier was hired as a Senior Scientist at ExPretio Technologies Inc.
12. Jesús Andrés Rodríguez Sarasty (PhD in Engineering Mathematics, Polytechnique Montreal, 2018).
Thesis title: *Mixed-Integer Programming Approaches for Generator Maintenance Scheduling in Hydropower Systems* (co-supervised with G. Desaulniers).
Dr. Rodríguez Sarasty was awarded a Mitacs Accelerate Internship for 2016-2017, in partnership with Rio Tinto.
13. Vilmar Jefte Rodrigues de Sousa (PhD in Engineering Mathematics, Polytechnique Montreal, 2018).
Thesis title: *Global Optimization of the Max-k-Cut Problem* (co-supervised with S. Le Digabel).
After graduating, Dr. Rodrigues de Sousa pursued postdoctoral research at Polytechnique Montreal.
14. Juan Alejandro Gómez Herrera (PhD in Industrial Engineering, Polytechnique Montreal, 2017).
Thesis title: *User-oriented demand response for smart buildings*
Dr. Gómez Herrera was awarded a 2017 Mitacs-Inria Globalink Scholarship for the project *Optimal energy management in a smart building with storage*.
After graduating, Dr. Gómez Herrera was hired as a Research Associate at Polytechnique Montreal.
15. Adham I. Tammam (PhD in Industrial Engineering, Polytechnique Montreal, 2016).
Thesis title: *Lissage optimal de la charge électrique en présence de sources d'énergies renouvelables via le pilotage de la consommation des chauffe-eau* (co-supervised with M. Gendreau).
After graduating, Dr. Tammam was hired as Operations Research Analyst at GIRO.
16. Patricia Lynn Gillett-Kawamoto (PhD in Engineering Mathematics, Polytechnique Montreal, 2016).
Thesis title: *Semidefinite Programming Approaches and Software Tools for Quadratic Programs with Linear Complementarity Constraints*.
After graduating, Dr. Gillett-Kawamoto was hired as Merchant Optimization Developer at Shopify.
17. Elspeth Clair Adams (PhD in Engineering Mathematics, Polytechnique Montreal, 2015).
Thesis title: *A Novel Approach to Tightening Semidefinite Relaxations for Certain Combinatorial Problems*.
The thesis of Dr. Adams was nominated for the Best Thesis Prize at Polytechnique Montreal.

Dr. Adams was a member of the Polytechnique team that placed second at the MOPTA 2014 Competition.

After graduating, Dr. Adams was hired as a Business Analyst at EA Games.

18. Bissan Ghaddar (PhD in Management Sciences, University of Waterloo, 2011).
Thesis title: *New Conic Optimization Techniques for Solving Binary Polynomial Programming Problems* (co-supervised with J.C. Vera).
Dr. Ghaddar was awarded an NSERC Canada Graduate Scholarship (CGS) for 2009–2011, and Ontario Graduate Scholarships (OGS) for 2007–2008 and 2008–2009. She was awarded the Fraser Research Prize 2008 for the Best Research Paper by a graduate student in Management Sciences at Waterloo.
After graduating, she held an NSERC Postdoctoral Fellowship at the Department of National Defense of Canada. She is now an Assistant Professor at the University of Waterloo, Canada.
19. Jose Rafael Avalos Muñoz (PhD in Electrical Engineering, University of Waterloo, 2008).
Thesis title: *Analysis and Application of Optimization Techniques to Power System Security and Electricity Markets* (co-supervised with C. Cañizares).
Dr. Avalos Muñoz was supported by a CONACYT Scholarship for 2004–2007.
After graduating, he was hired as an Associate Regional Transmission Engineer at the California Independent System Operator.
20. Chaomin Luo (PhD in Electrical Engineering, University of Waterloo, 2008).
Thesis title: *Novel Convex Optimization Techniques for VLSI Floorplanning* (co-supervised with A. Vannelli).
Dr. Luo was awarded an NSERC Doctoral Scholarship for 2003–2005, and an OGS for 2005–2006.
He was awarded the SWORD 2007 Best Presentation Award for the talk entitled *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization Techniques* (co-authored with M.F. Anjos and A. Vannelli).
After graduating, he was hired as Assistant Professor at the National Taipei University, Taiwan. He is currently an Associate Professor at the University of Detroit-Mercy, U.S.A.
21. Andrew Drake (PhD in Operational Research, University of Southampton, 2009).
Thesis title: *Approaches for Solving Some Scheduling and Routing Problems* (co-supervised with C. Potts).
Dr. Drake was supported by a scholarship from EPSRC.
After graduating, he was hired as a Researcher at the University of Southampton.
He is currently Finance Officer at Carewatch Gillingham, UK.

Masters Students

1. Viviane Aubin, MScA student in Energy Engineering at Polytechnique Montreal (since September 2018).
Ms. Aubin was awarded an NSERC Alexander Graham Bell Canada Graduate Scholarship for 2018–2019, and a Trottier Institute Scholarship for 2018–2020.
2. Florian Pedroli, MScA student in Energy Engineering at Polytechnique Montreal, co-supervised with M. Gendreau (since January 2018).

3. Valérie Provost, MScA student in Applied Mathematics at Polytechnique Montreal (since January 2018).
4. Marie Pied, MScA student in Electrical Engineering at Polytechnique Montreal, co-supervised with R. Malhamé (since January 2018).
Ms. Pied received a GERAD Scholarship for 2018-2019.
5. Ilaria Salerno, MScA student in Energy Engineering at Polytechnique Montreal (since September 2017).
6. Émilie Chénier, MScA student in Energy Engineering at Polytechnique Montreal (since January 2017).
7. Mathilde K. Bourque (MScA in Energy Engineering, Polytechnique Montreal, 2018), co-supervised with L. Lenoir.
8. Rachel Stephenson (MSc in Operational Research, University of Edinburgh, 2017), co-supervised with K. McKinnon.
9. Diego Beas Lagos (MSc in Operational Research, University of Edinburgh), co-supervised with J. Gondzio.
Mr. Beas Lagos was awarded a prize for Best Performance on the Operational Research MSc programmes in 2016–2017.
10. Adrien Barbry (MScA in Energy Engineering, Polytechnique Montreal, 2017), co-supervised with E. Delage.
11. Nicolas Barris (MScA in Industrial Engineering, Polytechnique Montreal, 2015), co-supervised with S. Alarie.
Mr. Barris was awarded a Mitacs Accelerate Internship, in partnership with Hydro-Québec.
After graduating, Mr. Barris was hired as a Project Manager by Lainco Inc.
12. Xiaoxi Xu (MScA in Applied Mathematics, Polytechnique Montreal, 2013).
After graduating, Ms. Xu was hired as an Analyst by GIRO.
13. Thibault Barbier (MScA in Applied Mathematics, Polytechnique Montreal, 2013).
After graduating, Dr. Barbier completed a PhD at Polytechnique Montreal under my supervision.
14. Giuseppe C. Costanzo (MScA in Electrical Engineering, Polytechnique Montreal, 2011), co-supervised with G. Zhu.
Dr. Costanzo completed a PhD at the Technical University of Denmark (DTU), and is now R&D Applications Engineer at ETEL S.A.
15. Uwe Truetsch (Diplom in Wirtschaftsmathematik, University of Cologne, Germany, 2010).
After graduating, Dr. Truetsch completed a PhD at the University of Tilburg, The Netherlands.

16. Jie Hu (MAsc in Management Sciences, University of Waterloo, 2011).
After graduating, Mr. Hu was hired as an Analyst by Canadian Tire.
17. Sabrina Bernardi (MMath in Computational Mathematics, University of Waterloo, 2010).
Ms. Bernardi was awarded an OGS for 2009–2010.
She received the Best Presentation Prize in Computational Mathematics for 2010.
After graduating, Ms. Bernardi was hired as a Business Application Analyst by One-Eighty Corp.
18. Elspeth Adams (MAsc in Management Sciences, University of Waterloo, 2010).
Ms. Adams was awarded an OGS for 2009–2010.
After graduating, she completed a PhD at Polytechnique Montreal under my supervision.
19. Jason Landry (MAsc in Management Sciences, University of Waterloo, 2009).
Mr. Landry was awarded an NSERC Postgraduate Scholarship for 2007–2009.
After graduating, Mr. Landry was hired as an Analyst by Concentra (UK).
20. Ginger Yen (MAsc in Management Sciences, University of Waterloo, 2008).
Ms. Yen was awarded an OGS in Science and Technology for 2007–2008.
After graduating, Ms. Yen was hired as an Analyst by IMS Health.
21. Bryan Leung (MAsc in Management Sciences, University of Waterloo, 2008).
Mr. Leung was awarded an OGS for 2006–2007.
After graduating, Mr. Leung was hired by Ontario Power Generation Inc. He now works at Trans-Alta Energy Marketing Corp.
22. Ibolya Jankovits (MAsc in Management Sciences, University of Waterloo, 2007).
Ms. Jankovits was awarded an OGS in Science and Technology for 2005–2006, and an OGS for 2006–2007.
After graduating, Ms. Jankovits was hired as a System Analyst for Deloitte.
23. Bissan Ghaddar (MAsc in Management Sciences, University of Waterloo, 2007).
Ms. Ghaddar was awarded the Annual Clough Memorial Award 2006 and the El-Gabbani Annual Scholarship 2006, both from the Department of Management Sciences at the University of Waterloo, in recognition of superior scholarship.
After graduating, she completed her PhD under my supervision.
24. Laksmi W. Suharsono (MSc in Management Science, University of Southampton, 2003).
After graduating, Ms. Suharsono was hired as an SAP Consultant in Indonesia.
25. Nicole Pulici (MSc in Operational Research, University of Southampton, 2003).
After graduating, Ms. Pulici was hired as a Transport Planner for WS Atkins PLC (UK).
26. Jonathan Hall (MSc in Operational Research, University of Southampton, 2003).
After graduating, Mr. Hall was hired as an Operations Research Analyst for Scott Wilson (UK).

Research Internship Students

1. Viviane Aubin (Polytechnique Montreal), June–August 2018.

2. Éloïse Edom (Polytechnique Montreal), December 2017–April 2018.
3. Vilmar Jefté Rodrigues de Sousa (ISIMA, Université Blaise Pascal), co-supervised with S. Le Digabel, April–August 2014.
The internship of Mr. de Sousa was supported by a Visiting Undergraduate Trainee Scholarship from GERAD.
4. Tristan Rigaut (ENSTA ParisTech), co-supervised with M. Gendreau, April–October 2014.
5. Quentin Laudereau (Polytechnique Paris), co-supervised with G. Zhu, April–July 2014.
6. Dorien Meijer Cluwen (University of Twente), August–December 2013.
7. Monishaa Manickavasagam (University of Calgary), October–December 2013.
The internship of Ms. Manickavasagam was supported by a full scholarship from the Fonds de recherche du Québec – Nature et technologies (FRQNT).

Undergraduate Research Students

1. Guillaume Baggio Ferla, undergraduate research assistant, October 2016–April 2017.
Mr. Baggio Ferla was awarded a competitive *Unité de participation et d'initiation à la recherche* (UPIR) undergraduate research scholarship by Polytechnique Montreal.
2. Frédéric Ebacher, undergraduate research assistant, October 2014–April 2015.
Mr. Ebacher was awarded a competitive *Unité de participation et d'initiation à la recherche* (UPIR) undergraduate research scholarship by Polytechnique Montreal.
3. Zack Zhu, undergraduate research assistant, January–April 2009.
4. Alan Thai, undergraduate research assistant, January–April 2009.
5. Christie Kong, co-op research student, September–December 2007; undergraduate research assistant, January–August 2008.
6. Rajesh Kumar Swaminathan, undergraduate research assistant, September 2007–April 2008.
7. Felicia Wong, NSERC Undergraduate Summer Research Award (USRA), May–August 2006.
8. Mirue Choi, co-op research student, September–December 2004.

Research Presentations

Plenary Presentations

1. *A Tight-and-Cheap Conic Relaxation for the AC Optimal Power Flow Problem*, Smart Energy Grid Engineering (SEGE), Oshawa, Canada, August 2018.
2. *Optimizing the Future of Smart Grids*, Optimization Days 2018, Montreal, Canada, May 2018.
3. *Vers un internet énergétique avec les réseaux électriques intelligents* (in French), Journées québécoises de valorisation des données, Montreal, Canada, March 2018.
4. *The State-of-the Art of Mathematical Optimization Models for Facility Layout*, 15th EUROPT Workshop on Advances in Continuous Optimization, Montreal, Canada, July 2017.
5. *The State-of-the Art of Mathematical Optimization Models for Facility Layout*, 2017 Mixed Integer Programming (MIP) Workshop, Montreal, Canada, June 2017.
6. *Harnessing Flexibility in Smart Grids*, Workshop on Complex Energy Systems, ISCI, Pontificia Universidad Católica, Santiago, Chile, November 2016.
7. *Recent Progress and Current Challenges in Optimization for the Smart Grid*, Joint NZSA & ORSNZ Annual Conference, Wellington, New Zealand, November 2014.
8. *Bilateral Contract Optimization in Power Markets*, 8th Annual Trans-Atlantic Infraday on Energy, Federal Energy Regulatory Commission (FERC), Washington DC, U.S.A., November 2014.
9. *Recent Progress and Current Challenges in Optimization for the Smart Grid*, Modeling and Optimization: Theory and Applications (MOPTA) 2014, Bethlehem PA, U.S.A., August 2014.
10. *Conic Optimization: An Exciting Present and a Promising Future*, 12th EUROPT Workshop on Advances in Continuous Optimization, Perpignan, France, July 2014.
11. *Advances in Conic Relaxations for Discrete Optimization*, Canadian Discrete and Algorithmic Mathematics (CanaDAM) Conference, St. John's, Canada, June 2013.
12. *Optimization Challenges in Smart Grid Operations*, Conference on Principles and Practice of Constraint Programming (CP), Quebec QC, Canada, October 2012.
13. *Semidefinite Optimization: Yesterday, Today, and Tomorrow*, Annual Meeting of the Portuguese Mathematical Society, Algarve, Portugal, July 2012.
14. *A Match Made in Heaven: Semidefinite Optimization and Combinatorial Optimization*, 25th Conference on Combinatorial Optimization (ECCO 2012), Antalya, Turkey, April 2012.
15. *Valid Polynomial Inequality Generation in Polynomial Optimization*, Second Alpen-Adria Workshop on Optimization, Klagenfurt, Austria, May 2011.
16. *Warm-Starts and Hip Cuts for Interior-Point Methods in Combinatorial Optimization*, Fall 2009 West Coast Optimization Conference, Vancouver BC, Canada, October 2009.

17. *An Improved Semidefinite Programming Relaxation for the Satisfiability Problem*, Workshop on Semidefinite Programming and its Applications in Control Theory, Combinatorial and Global Optimization, Toulouse, France, September 2002.
18. *Can Semidefinite Programming Make the Cut?*, Graduate Student Conference of the Faculty of Mathematics of the University of Waterloo, Canada, June 2000.

Semi-Plenary Presentation

1. *Optimizing the Future of Smart Grids*, OR 2018 - the International Conference on Operations Research, Brussels, Belgium, September 2018.
2. *Semidefinite Relaxations: The Cutting Edge*, OR 2013 - the International Conference on Operations Research, Rotterdam, the Netherlands, September 2013.

Invited Tutorial Presentations

1. *Introduction to Optimization in Energy*, DTU CEE Summer School on Optimization in Energy, Copenhagen, Denmark, June 2018.
2. *Operations Research Approaches for Building Demand Response in a Smart Grid*, INFORMS Annual Meeting, Houston TX, U.S.A., October 2017.
3. *Optimization on Smart Grids*, Centro de Matemática e Aplicações, FCT, Nova University of Lisbon, Monte da Caparica, Portugal, December 2015.
4. *Semidefinite Optimization*, MINO/COST Spring School on Convex Optimization and Applications, Klagenfurt, Austria, April 2014.
5. *Conic Relaxations for Discrete Optimization*, 2013 PIMS Optimization Summer School, Calgary AB, Canada, June 2013.
6. *(Semi)Definitely the Future! A Course on Semidefinite Optimization*, Portuguese Operational Research Society (APDIO), Coimbra, Portugal, May 2011.
7. *(Semi)Definitely Going Global*, Optimization Days 2010, Montreal QC, Canada, May 2010.

Other Invited Presentations with Financial Support of the Host Institution

1. *Progress in Optimization Models for Unit Commitment*, California ISO, Folsom CA, U.S.A., August 2018.
2. *The Unit Commitment Problem: An Important and Challenging Problem*, Université du Québec à Chicoutimi, Chicoutimi QC, Canada, April 2018.
3. *New Formulations for Generator Maintenance Scheduling in Hydropower Systems*, Computational Mathematics and Applications Seminar, Oxford University, U.K., November 2017.
4. *Operations Research for Building Demand Response in a Smart Grid*, RTE, Paris, France, November 2017.
5. *Optimization for Demand Response in Smart Grids*, Energy Institute Seminar, University of Birmingham, U.K., June 2017.

6. *Mathematical Optimization Approaches for Facility Layout Problems*, ISOR-Kolloquium, Universität Wien, Vienna, Austria, March 2017.
7. *Optimization for Demand Response in Smart Grids*, Business and Management Science Seminar, NHH Norwegian School of Economics, Norway, February 2017.
8. *Smart Grids and Optimization: A Winning Combination*, Computational Optimisation Seminar, Imperial College, U.K., December 2016.
9. *Smart Grids and Optimization: A Winning Combination*, Applied Mathematics and Statistics Seminar, University of Copenhagen, Denmark, October 2016.
10. *Smart Grids and Optimization: A Winning Combination*, PGMO Seminar, l'X, Palaiseau, France, October 2016.
11. *Smart Grids and Optimization: A Winning Combination*, OPTIMA Seminar, Inria Lille-Nord Europe, France, October 2016.
12. *Smart Grids and Optimization: A Winning Combination*, Workshop on Computational Optimization in Action, ICMS, Edinburgh, U.K., June 2016.
13. *Smart Grids and Optimization: A Winning Combination*, Workshop on Nonlinear Optimization Algorithms and Industrial Applications, Fields Institute, Toronto ON, Canada, June 2016.
14. *Smart Grids and Optimization: A Winning Combination*, Department of Industrial and Systems Engineering, University of Florida, FL, U.S.A., April 2016.
15. *The Trottier Energy Futures Project: An Analytical Study of Energy Pathways for Greenhouse Gas Reductions in Canada*, Alan Turing Institute Workshop on Data Science for Whole Energy Systems, ICMS, Edinburgh, U.K., January 2016.
16. *Optimal Management of Bilateral Contracts for Energy Procurement*, Workshop on "Smart Grids: Today and The Future", University of Waterloo, Waterloo, Canada, October 2015.
17. *Current Challenges and Recent Progress in Optimization for the Smart Grid*, ERGO Seminar, School of Mathematics, University of Edinburgh, Edinburgh, U.K. September 2015.
18. *Progress on Computing Solutions to Binary-Constrained and to Quadratic Complementarity Problems*, Optimization Workshop, Quinta das Lágrimas, Coimbra, Portugal, July 2015.
19. *Current Challenges and Recent Progress in Optimization for the Smart Grid*, Fields Industrial Optimization Seminar, Fields Institute, Toronto ON, Canada, March 2015 (presented jointly with Innocent Kamwa, Hydro-Québec).
20. *Improved Mixed Integer Linear Optimization Formulations for Unit Commitment*, Seminar, Econometrics & Operations Research, Tilburg University, Tilburg, Netherlands, October 2014.
21. *Recent Progress and Current Challenges in Optimization for the Smart Grid*, Seminar Series, Mechanical & Industrial Engineering, University of Toronto, Toronto ON, Canada, October 2014.

22. *Recent Progress and Current Challenges in Optimization for the Smart Grid*, ISyE Colloquium, Georgia Institute of Technology, Atlanta GA, U.S.A., October 2014.
23. *Demand-Response : Le jumelage des technologies de gestion de l'énergie et de la recherche opérationnelle* (in French), joint presentation with S. Leblond (Schneider Electric Canada), Colloquium on Smart Grids entitled "Défis énergétiques", Entretiens Jacques Cartier 2014, Polytechnique Montreal & ETS, Montreal, Canada, October 2014.
24. *Demand Response: Marrying Energy Management Applications and Operations Research*, joint presentation with Y. Kulp (Schneider Electric Canada), Smart Grid Canada, Montreal, Canada, October 2014.
25. *Improved Mixed Integer Linear Optimization Formulations for Unit Commitment*, Civil Systems Special Seminar, University of Maryland College Park, College Park MD, U.S.A., March 2014.
26. *Optimisation de systèmes hybrides avec batteries pour sites isolés* (in French), Colloquium on Smart Grids entitled "Intégration fûtée des énergies renouvelables : l'habitat, le réseau et leurs interactions", Entretiens Jacques Cartier 2013, LAAS-CNRS, Toulouse, France, November 2013.
27. *Optimal Load Management in Autonomous Systems*, ERGO Seminar, School of Mathematics, University of Edinburgh, Edinburgh, U.K. August 2013.
28. *Applications of Linear and Nonlinear Optimisation in the Electricity Sector*, Isaac Newton Institute for Mathematical Sciences, Cambridge, U.K., August 2013.
29. *Towards Efficient Higher-Order Semidefinite Relaxations for Max-Cut*, Isaac Newton Institute for Mathematical Sciences, Cambridge, U.K., July 2013.
30. *Optimization Challenges in Smart Grid Operations*, Engineering Science, University of Auckland, Auckland, New Zealand, June 2013.
31. *Optimization Challenges in Smart Grid Operations*, Centre for Urban Energy, Ryerson University, Toronto ON, Canada, March 2013.
32. *Optimization Challenges in Smart Grid Operations*, Management Sciences, University of Waterloo, Waterloo, Canada, March 2013.
33. *Vers un effacement optimal des charges* (in French), Colloquium on Smart Grids entitled "L'électricité intelligente : vers des systèmes à valeur ajoutée", Entretiens Jacques Cartier 2012, EPFL, Lausanne, Switzerland, November 2012.
34. *Optimization Challenges in Smart Grid Operations*, Humboldt Colloquium "Excellence in Research", Toronto ON, Canada, November 2012.
35. *Optimization Challenges in Smart Grid Operations*, Electrical and Computer Engineering, University of Calgary, Calgary AB, Canada, September 2012.
36. *A Match Made in Heaven: Semidefinite Optimization and Combinatorial Optimization*, Operations Research, Universität Klagenfurt, Klagenfurt, Austria, May 2012.
37. *(Semi)Definitely Going Global*, Joint Mathematical Sciences and Industrial & Systems Engineering Colloquium, Rensselaer Polytechnic Institute, Troy, NY, U.S.A., April 2012.
38. *Valid Polynomial Inequality Generation in Polynomial Optimization*, Workshop on Optimization, Fields Institute, Toronto ON, Canada, September 2011.

39. *Valid Polynomial Inequality Generation in Polynomial Optimization*, Industrial & Systems Engineering Seminar, Lehigh University, Bethlehem PA, U.S.A., June 2011.
40. *Iterative Valid Polynomial Inequality Generation in Polynomial Optimization*, Faculté de Mathématiques Pierre et Marie Curie, Université Pierre et Marie Curie - Paris 6 (UPMC), Paris, France, May 2011.
41. *Recent Progress in the Application of SDP to Discrete Optimization*, Mathematisches Institut, Heinrich-Heine-Universität, Düsseldorf, Germany, April 2010.
42. *Second-Order Cone Programming Relaxations of Binary Quadratic Problems*, Minisymposium Diskrete Optimierung, TU-Graz, Graz, Austria, April 2010.
43. *Polynomial Programming Relaxations of Binary Quadratic Problems*, Operations Research, Universität Klagenfurt, Klagenfurt, Austria, April 2010.
44. *Warm-Starts for Interior-Point Methods in Combinatorial Optimization*, ISDS-Kolloquium, Universität Wien, Vienna, Austria, April 2010.
45. *Warm-Starts for Interior-Point Methods in Combinatorial Optimization*, Max-Planck-Institut für Informatik, Saarbrücken, Germany, January 2010.
46. *Warm-Starts for Interior-Point Methods in Combinatorial Optimization*, Universität Konstanz, Konstanz, Germany, January 2010.
47. *Novel Semidefinite Models & Improved Algorithms for Maximum-k-Cut Problems*, Network Meeting of the Humboldt Foundation, Heidelberg, Germany, November 2009.
48. *Warm-Starts and Hip Cuts for Interior-Point Methods in Combinatorial Optimization*, Operations Research Seminar, Tilburg University, The Netherlands, November 2009.
49. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Operations Research Seminar, Department of Mathematics, Simon Fraser University, Vancouver BC, Canada, October 2009.
50. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Centre for Operational Research, Management Science and Information Systems (CORMSIS) Seminar, University of Southampton, U.K., June 2009.
51. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Management Science Seminar, Judge Business School, Cambridge University, U.K., June 2009.
52. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Department of Mathematics, University of Coimbra, Coimbra, Portugal, May 2009.
53. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, CEOC Seminar, Department of Mathematics, University of Aveiro, Aveiro, Portugal, May 2009.
54. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Operations Research Seminar, Tepper School of Business, Carnegie-Mellon University, Pittsburgh PA, U.S.A., April 2009.
55. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, DIMACS Workshop in Memory of Leo Khachiyan, Rutgers University, New Brunswick NJ, U.S.A., March 2009.

56. *Optimal and Near-Optimal Solutions for Very Large Single-Row Facility Layout Problems*, Dept of Decision Sciences, Drexel University, Philadelphia PA, U.S.A., February 2009.
57. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, LIDS Seminar, Massachusetts Institute of Technology, Cambridge MA, U.S.A., May 2008.
58. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, Computational Science & Engineering Seminar, McGill University, Montreal, Canada, February 2008.
59. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, GERAD, Montreal, Canada, February 2008.
60. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, Operations Research Seminar, North Carolina State University, Raleigh NC, U.S.A., November 2007.
61. *Globally Optimal Solutions for Large Single-Row Facility Layout Problems*, Management Sciences Seminar, Tippie College of Business, University of Iowa, Iowa City IA, U.S.A., April 2006.
62. *Recent Progress in Applying Semidefinite Optimization to the Satisfiability Problem*, Algorithms Group Seminar, Delft University of Technology, The Netherlands, February 2006.
63. *Towards an SDP-Based Algorithm for the Satisfiability Problem*, Computational Mathematics and Applications Seminar, Oxford University, U.K., May 2004.
64. *Towards an SDP-Based Algorithm for the Satisfiability Problem*, Mathematical Programming Seminar, CORE, Louvain-la-Neuve, Belgium, March 2004.
65. Guest Lecturer at the School of Computer Science of McGill University, presented a series of lectures on *Semidefinite Programming and Combinatorial Optimization*, February 2004.
66. *Semidefinite Relaxations for the Max-Cut Problem*, Mathematisches Institut, Heinrich-Heine-Universität, Düsseldorf, Germany, November 2001.
67. *Semidefinite Relaxations for the Max-Cut Problem*, Institut für Informatik Colloquium, Universität zu Köln, Cologne, Germany, February 2001.
68. *Semidefinite Relaxations for the Max-Cut Problem*, GSIA OR Seminar, Carnegie-Mellon University, Pittsburgh PA, U.S.A., September 2000.
69. *Strengthened Semidefinite Relaxations for the Max-Cut Problem*, Universität Klagenfurt, Klagenfurt, Austria, May 2000.
70. *Semidefinite Relaxations for the Max-Cut Problem*, McGill Computational Science and Engineering Seminar, McGill University, Montreal, Canada, February 2000.

Invited Conference Presentations

1. *Computational Study of Valid Inequalities for k -Way Graph Partitioning*, Fourth Alpen-Adria Workshop on Optimization, Klagenfurt, Austria, November 2016.
2. *A Decomposition Approach For Hydropower Operation and Maintenance Scheduling*, INFORMS Annual Meeting, Nashville TN, U.S.A., November 2016.
3. *An Improved Two-Stage Optimization-Based Framework for Unequal-Areas Facility Layout*, Workshop on Advances in Optimization, Tokyo, Japan, August 2016.

4. *Computational Study of Valid Inequalities for the Maximum k -Cut Problem*, International Conference on Continuous Optimization (ICCOPT) 2016, Tokyo, Japan, August 2016.
5. *An Improved Two-Stage Optimization-Based Framework for the Unequal-Areas Facility Layout Problem*, MOPTA 2015, Bethlehem PA, U.S.A., July 2015.
6. *Current Challenges and Recent Progress in Optimization for Smart Power Networks*, NOW 2015, La Rochelle, France, May 2015.
7. *Hierarchical Cuts to Strengthen Semidefinite Relaxations of NP-hard Graph Problems*, IFORS 2014, Barcelona, Spain, July 2014.
8. *Towards Efficient Higher-Order Semidefinite Relaxations for Max-Cut*, MINLP 2014, Pittsburgh PA, U.S.A., June 2014.
9. *Improved Mixed Integer Linear Optimization Formulations for Unit Commitment*, SIAM Conference on Optimization, San Diego CA, U.S.A., May 2014.
10. *Improved Mixed Integer Linear Optimization Formulations for Unit Commitment*, INFORMS Optimization Society Conference, Houston TX, U.S.A., March 2014.
11. *Optimization of Wind, Diesel and Battery Systems for Remote Areas*, INFORMS Annual Meeting, Minneapolis MN, U.S.A., October 2013.
12. *Towards Efficient Higher-Order Semidefinite Relaxations for Max-Cut*, INFORMS Annual Meeting, Minneapolis MN, U.S.A., October 2013.
13. *Towards Efficient Higher-Order Semidefinite Relaxations for Max-Cut*, International Conference on Continuous Optimization (ICCOPT) 2013, Lisbon, Portugal, July 2013.
14. *A System Architecture for Autonomous Demand Side Load Management in Smart Buildings*, Annual Meeting of the Canadian Applied and Industrial Mathematics Society (CAIMS), Quebec QC, Canada, June 2013.
15. *Convergence and Polynomiality of a Primal-Dual Interior-Point Algorithm for Linear Programming with Selective Addition of Inequalities*, International Symposium on Mathematical Programming, Berlin, Germany, August 2012.
16. *A Semidefinite Optimization Approach to Multi-Row Facility Layout*, MOPTA 2012, Bethlehem PA, U.S.A., July 2012.
17. *Improved Models of Strategic Behaviour in Power Markets*, 32nd Annual Conference of the International Association for Impact Assessment, Porto, Portugal, May 2012.
18. *A Semidefinite Optimization Approach to Space-free Multi-row Facility Layout*, INFORMS Optimization Society Conference, Miami FL, U.S.A., February 2012.
19. *An Iterative Scheme for Valid Polynomial Inequality Generation in Binary Polynomial Programming*, INFORMS Annual Meeting, Charlotte NC, U.S.A., November 2011.
20. *An Iterative Scheme for Valid Polynomial Inequality Generation in Binary Polynomial Programming*, Optimization 2011, Lisbon, Portugal, July 2011.
21. *Computational Experience with Copositive Programming-Based Approximations of the Stability Number*, SIAM Conference on Optimization, Darmstadt, Germany, May 2011.
22. *Computing Exact Solutions for Row Layout Problems*, EURO XXIV Meeting, Lisbon, Portugal, July 2010.

23. *HIPCUT I - Background and Theory*, INFORMS Annual Meeting, San Diego CA, U.S.A., October 2009. (HIPCUT II was presented by Alexander Engau.)
24. *On Interior-Point Warmstarts for Linear and Combinatorial Optimization*, Aussois 2009: Thirteenth International Workshop in Combinatorial Optimization, Aussois, France, January 2009.
25. *Cone Programming Relaxations for Complementarity Constraints*, INFORMS Annual Meeting, Washington DC, U.S.A., October 2008.
26. *Provably Near-Optimal Solutions for Very Large Single-Row Facility Layout Problems*, INFORMS Annual Meeting, Washington DC, U.S.A., October 2008.
27. *Recent Results on the Application of Semidefinite Programming to Characterize Satisfiability*, SIAM Conference on Optimization, Boston MA, U.S.A., May 2008.
28. *Solving Minimum k -Partition Problems Using Semidefinite Programming*, INFORMS Conference on Optimization, Atlanta GA, U.S.A., March 2008.
29. *A Branch-and-Cut Algorithm Based on Semidefinite Programming for the Minimum k -Partition Problem*, Aussois 2008: Twelfth International Workshop in Combinatorial Optimization, Aussois, France, January 2008.
30. *A Branch-and-Cut Algorithm Based on Semidefinite Programming for the Minimum k -Partition Problem*, NCP07 International Conference on Nonconvex and Global Optimization, Rouen, France, December 2007.
31. *Globally Optimal and Near-Optimal Solutions for Large Single-Row Facility Layout Problems*, Second International Conference on Continuous Optimization, Hamilton ON, Canada, August 2007.
32. *Finding Nash Equilibria in Electricity Markets: An AC-Network Approach*, CORS Annual Meeting, London ON, Canada, May 2007.
33. *Finding Nash Equilibria in Electricity Markets: An AC-Network Approach*, Workshop on Advances in Optimization, Tokyo, Japan, April 2007.
34. *Finding Supply Function Equilibrium in Electricity Markets Using an AC Approach*, BIRS Optimization & Engineering Applications Workshop, Banff, Canada, November 2006.
35. *Finding Supply Function Equilibrium in Electricity Markets Using an AC Approach*, INFORMS Annual Meeting, Pittsburgh PA, U.S.A., November 2006.
36. *Globally Optimal Solutions for Large Single-Row Facility Layout Problems*, INFORMS Annual Meeting, Pittsburgh PA, U.S.A., November 2006.
37. *Globally Optimal Solutions for Large Single-Row Facility Layout Problems*, International Symposium on Mathematical Programming, Rio de Janeiro, Brazil, August 2006.
38. *Globally Optimal Solutions for Large Single-Row Facility Layout Problems*, MOPTA 2006, Waterloo ON, Canada, July 2006.
39. *Optimal and Near-Optimal Solutions for Single-Row Layout Problems via Semidefinite Optimization*, EURO XXI Meeting, Reykjavik, Iceland, July 2006.
40. *A Semidefinite Optimization Approach for Row Layout Problems*, INFORMS Annual Meeting, San Francisco CA, U.S.A., November 2005.

41. *Recent Progress in Applying Semidefinite Optimization to Satisfiability Problems*, Eighth SIAM Conference on Optimization, Stockholm, Sweden, May 2005.
42. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*, Aussois 2005: Ninth International Workshop in Combinatorial Optimization, Aussois, France, March 2005.
43. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*, INFORMS Annual Meeting, Denver CO, U.S.A., October 2004.
44. *A Convex Optimization Approach for VLSI Floorplanning*, Seventh SIAM Conference on Optimization, Toronto ON, Canada, May 2002.
45. *Properties of a New Semidefinite Relaxation for the Max-Cut Problem*, Workshop on Optimization and Applications, Oberwolfach, Germany, January 2002.
46. *Properties of a New Semidefinite Relaxation for the Max-Cut Problem*, Aussois 2002: Sixth International Workshop in Combinatorial Optimization, Aussois, France, January 2002.
47. *Properties of a New Semidefinite Relaxation for the Max-Cut Problem*, Workshop on Novel Approaches to Hard Discrete Optimization, Waterloo, Canada, April 2001.
48. *Semidefinite Relaxations for the Max-Cut Problem*, Dagstuhl Seminar on Algorithmic Techniques in Physics, Schloss Dagstuhl, Germany, February–March 2001.
49. *Strengthened Semidefinite Relaxations for the Max-Cut Problem*, Seventeenth International Symposium on Mathematical Programming, Atlanta GA, U.S.A., August 2000.

Other Invited Research Presentations

1. *Approaches for Building Demand Response in a Smart Grid*, INOCS Day, Inria Lille-Nord Europe, France, September 2017.
2. *The Unit Commitment Problem: An Important and Challenging Problem*, Energy-Mathematics Seminar, School of Mathematics, University of Edinburgh, Edinburgh, U.K. April 2017.
3. *The Unit Commitment Problem: An Important and Challenging Problem*, Operations Seminar, University Adolfo Ibáñez, Santiago, Chile, November 2016.
4. *Recent Progress and Current Challenges in Optimization for the Smart Grid*, CORMSIS Seminar, University of Southampton, Southampton, U.K., May 2015.
5. *Towards Efficient Higher-Order Semidefinite Relaxations for Max-Cut*, Optimization Afternoon, LAAS-CNRS, Toulouse, France, November 2013.
6. *A Primal-Dual Interior-Point Algorithm for Conic Optimization with Selective Addition of Inequalities*, Mathematics and Statistics, University of Calgary, Calgary AB, Canada, June 2013.
7. *Semidefinite Optimization: Yesterday, Today, and Tomorrow*, Chemnitzer Mathematisches Colloquium, Technische Universität Chemnitz, Chemnitz, Germany, June 2012.

8. *Semidefinite Optimization: Yesterday, Today, and Tomorrow*, Über Mittag Seminar, Lehrstuhl für Wirtschaftsmathematik, Universität Erlangen-Nürnberg, Erlangen, Germany, June 2012.
9. *Optimisation SDP: Quoi, comment, pourquoi?*, GERAD, Montreal, Canada, March 2012.
10. *(Semi)Definitely Going Global!*, School of Computer Science Colloquium, McGill University, Montreal, Canada, March 2012.
11. *Warm-Starts for Interior-Point Methods in Combinatorial Optimization*, Institut für Informatik Colloquium, Universität zu Köln, Cologne, Germany, July 2010.
12. *A Branch-and-Cut Algorithm based on Semidefinite Programming for the Minimum k -Partition Problem*, RUTCOR Colloquium, Rutgers University, New Brunswick NJ, U.S.A., November 2007.
13. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, Advanced Optimization Laboratory Seminar, McMaster University, Hamilton ON, Canada, October 2007.
14. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, Operations Research Seminar Series, University of Guelph, Guelph, Canada, September 2007.
15. *Recent Progress in Applying Semidefinite Optimization to the Satisfiability Problem*, Institut für Informatik Colloquium, Universität zu Köln, Cologne, Germany, June 2007.
16. *A Semidefinite Programming Approach for Single-Row Facility Layout Problems*, Tsukuba University, Tokyo, Japan, April 2007.
17. *Finding Nash Equilibria in Electricity Markets: An AC-Network Approach*, Management Science Seminar, Judge Business School, Cambridge University, U.K., February 2007.
18. *Finding Nash Equilibria in Electricity Markets: An AC-Network Approach*, Institute for Sustainable Energy, Environment & Economy (ISEEE), University of Calgary, Calgary AB, Canada, November 2006.
19. *Provably Optimal and Near-Optimal Solutions for Single-Row Layout Problems via Semidefinite Optimization*, Tutte Colloquium, University of Waterloo, Canada, March 2006.
20. *Provably Optimal and Near-Optimal Solutions for Single-Row Layout Problems via Semidefinite Optimization*, Operations Research Seminar, Tilburg University, The Netherlands, February 2006.
21. *Recent Progress in Applying Semidefinite Optimization to the Satisfiability Problem*, Mathematics & Statistics Colloquium, University of Guelph, Canada, November 2005.
22. *Can Semidefinite Programming Make the Cut?*, Applied Mathematics Informal Lunchtime Seminar, University of Southampton, U.K., November 2003.
23. *Towards an SDP-Based Algorithm for the Satisfiability Problem*, Tutte Colloquium, Combinatorics and Optimization, University of Waterloo, Canada, October 2003.
24. *Towards an SDP-Based Algorithm for the Satisfiability Problem*, Advanced Optimization Laboratory Seminar, McMaster University, Hamilton ON, Canada, October 2003.
25. *An Improved Semidefinite Programming Relaxation for the Satisfiability Problem*, Operational Research Seminar, University of Southampton, U.K., October 2002.

26. *Improved Semidefinite Programming Relaxations for Satisfiability*, Engineering Science, University of Auckland, New Zealand, July 2002.
27. *A New Mathematical Programming Framework for Facility Layout Design*, Engineering Science, University of Auckland, New Zealand, June 2002.
28. *A New Mathematical Programming Framework for Facility Layout Design*, Advanced Optimization Laboratory Seminar, McMaster University, Hamilton ON, Canada, May 2002.
29. *A New Mathematical Programming Framework for Facility Layout Design*, Tutte Colloquium, Combinatorics and Optimization, University of Waterloo, Canada, May 2002.
30. *A New Mathematical Programming Framework for Facility Layout Design*, Operational Research Seminar, University of Southampton, U.K., March 2002.
31. *A Strengthened Semidefinite Relaxation for the Max-Cut Problem*, Combinatorial Optimization Seminar, University of Waterloo, Waterloo, Canada, February 2000.
32. *A Strengthened Semidefinite Relaxation for the Max-Cut Problem*, SCAMS Seminar Series, Wilfrid Laurier University, Waterloo, Canada, January 2000.

Contributed Conference Presentations

1. *Continuous Formulations for Facility Layout on Rows with Rectilinear Distance*, EUROPT Workshop on Advances in Continuous Optimization, Almería, Spain, July 2018.
2. *Tight-and-Cheap Conic Relaxation for the AC Optimal Power Flow Problem*, International Symposium on Mathematical Programming, Bordeaux, France, July 2018.
3. *Applications of Logic Constrained Equilibria to Traffic Networks and to Power Systems with Storage*, International Workshop on Bilevel Programming, INRIA Lille-Nord Europe, France, June 2018.
4. *New Formulations for Generator Maintenance Scheduling in Hydropower Systems*, PGMO Days, EDFLab Paris Saclay, France, November 2017.
5. *Co-optimization of Offers of Demand Response and Reserve*, PGMO Days, EDFLab Paris Saclay, France, November 2016.
6. *An Improved Two-Stage Optimization-Based Framework for Unequal-Areas Facility Layout*, CORS Annual Meeting, Banff, AB, Canada, May 2016.
7. *Optimal Management of Bilateral Contracts for Energy Procurement*, INFORMS Annual Meeting, Philadelphia PA, U.S.A., November 2015.
8. *An RLT Approach for Solving the Binary-Constrained Mixed Linear Complementarity Problem*, FERC Workshop/9th Annual Trans-Atlantic Infraday, Washington DC, U.S.A., October 2015.
9. *An Improved Two-Stage Optimization-Based Framework for the Unequal-Areas Facility Layout Problem*, International Symposium on Mathematical Programming, Pittsburgh, PA, U.S.A., July 2015.

10. *Exact Separation of k -Projection Polytope Constraints*, EUROPT Workshop on Advances in Continuous Optimization, Edinburgh, U.K., July 2015.
11. *Unsatisfiability and Semidefinite Certificates of Infeasibility*, Optimization Days, Montreal, Canada, May 2014.
12. *Optimization of Wind, Diesel and Battery Systems for Remote Areas*, 7th Annual Trans-Atlantic Infraday on Energy, Washington DC, U.S.A., November 2013.
13. *Optimization of Wind, Diesel and Battery Systems for Remote Areas*, MOPTA 2013, Bethlehem PA, U.S.A., August 2013.
14. *Improving the Mixed Integer Linear Programming (MILP) Formulation for Unit Commitment Problems*, Optimization Days, Montreal, Canada, May 2013.
15. *A Semidefinite Optimization Approach to Multi-Row Facility Layout*, INFORMS Annual Meeting, Phoenix AZ, U.S.A., October 2012.
16. *A System Architecture for Autonomous Demand Side Load Management in Smart Buildings*, INFORMS Annual Meeting, Phoenix AZ, U.S.A., October 2012.
17. *A System Architecture for Autonomous Demand Side Load Management in Smart Buildings*, MOPTA 2012, Bethlehem PA, U.S.A., August 2012.
18. *A Semidefinite Optimization Approach to Space-Free Multi-Row Facility Layout*, Optimization Days, Montreal, Canada, May 2012.
19. *Direct Representation of the Resolution Rule Via Semidefinite Programming*, INFORMS Annual Meeting, Charlotte NC, U.S.A., November 2011.
20. *Valid Polynomial Inequality Generation in Binary Polynomial Optimization*, Optimization Days, Montreal, Canada, May 2011.
21. *On Mixed Integer Linear Programming Formulations for Unit Commitment Problems*, INFORMS Annual Meeting, Austin TX, U.S.A., November 2010.
22. *Second-Order Cone Relaxations of Binary Quadratic Problems via Polynomial Programming*, EUROPT Workshop on Advances in Continuous Optimization, Aveiro, Portugal, July 2010.
23. *Recent Progress in the Application of Semidefinite Programming to Discrete Optimization*, Optimization Days, Montreal, Canada, May 2009.
24. *Recent Results on the Application of Semidefinite Programming to Characterize Satisfiability*, MOPTA 2008, Guelph, Canada, August 2008.
25. *Large-Scale Fixed-Outline Floorplanning Design Using Convex Optimization*, INFORMS Conference on Optimization, Atlanta GA, U.S.A, March 2008.
26. *Recent Progress in Applying Semidefinite Optimization to the Satisfiability Problem*, Optimization 2007, Porto, Portugal, July 2007.
27. *A Semidefinite Optimization Approach for Single-Row Facility Layout Problems*, EUROPT Workshop on Advances in Continuous Optimization, Reykjavik, Iceland, June 2006.
28. *A Semidefinite Optimization Approach for Single-Row Facility Layout Problems*, Joint Optimization Days/CORS Meeting, Montreal, Canada, May 2006.

29. *Recent Progress in Applying Semidefinite Optimization to the Satisfiability Problem*, Joint Optimization Days/CORS Meeting, Montreal, Canada, May 2006.
30. *A Semidefinite Optimization Approach for Row Layout Problems*, Operations Research 2005, Bremen, Germany, September 2005.
31. *Characterizations of Unsatisfiability via Semidefinite Optimization*, Franco-Canadian Workshop on Combinatorial Algorithms, Hamilton ON, Canada, August 2005.
32. *Recent Progress in Applying Semidefinite Optimization to Satisfiability Problems*, MOPTA 2005, Windsor, Canada, July 2005.
33. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*, ICCOPT I, Troy NY, U.S.A., August 2004.
34. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*, MOPTA 2004, Hamilton ON, Canada, July 2004.
35. *A Semidefinite Optimization Approach for the Single-Row Layout Problem with Unequal Dimensions*, HPOPT 2004, Amsterdam, The Netherlands, June 2004.
36. *Solving the Satisfiability Problem Using Semidefinite Programming*, Operations Research 2003, Heidelberg, Germany, September 2003.
37. *Solving the Satisfiability Problem Using Semidefinite Programming*, Eighteenth International Symposium on Mathematical Programming, Copenhagen, Denmark, August 2003.
38. *Tackling the Combinatorial Structure of Floorplanning Problems using Continuous Optimization*, EURO/INFORMS First Joint International Meeting, Istanbul, Turkey, July 2003.
39. *An Improved Semidefinite Programming Relaxation for Satisfiability*, EURO/INFORMS First Joint International Meeting, Istanbul, Turkey, July 2003.
40. *An Improved Semidefinite Programming Relaxation for Satisfiability*, SIAM Annual Meeting 2003, Montreal, Canada, June 2003.