

Antoine Lesage-Landry

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Education

University of Toronto, Toronto, ON, Canada
Ph.D., Electrical Engineering, May 2019 (completed)

École Polytechnique de Montréal, Montréal, QC, Canada
B.Eng., Engineering Physics, June 2015

Dissertation

“Online Optimization for Demand Response”
Design of performance-guaranteed, online optimization-based algorithms for real-time demand response while accounting for uncertainty.

Professional affiliations

Junior Engineer, Ordre des Ingénieurs du Québec (OIQ)
Member, INFORMS
Member, IEEE
Student Member, Canadian Operational Research Society (CORS)

Employment

Energy & Resources Group, University of California, Berkeley
Postdoctoral Scholar, August 2019 - present

Dept. of Electrical and Electronic Eng., The University of Melbourne
Visiting Scholar, January 2018 - April 2018 and February 2019

Teaching

Electrical & Computer Engineering, University of Toronto
Teaching Assistant, Mathematical Methods in Power Systems, Fall 2018
Teaching Assistant, Calculus III, Fall 2015*–2018, Summer 2017
Teaching Assistant, Electricity & Magnetism, Winter 2016-2017
*Teaching Assistant Award, Fall 2015

Engineering Physics, École Polytechnique de Montréal
Teaching Assistant, Mathematical Methods for Physicist II, Winter 2015
Laboratory Teaching Assistant, Atomic & Molecular Physics, Winter 2014

Publications

Journal Papers

- J8. **Antoine Lesage-Landry**, Joshua A. Taylor, and Iman Shames. Second-order Online Nonconvex Optimization. *Automatic Control, IEEE Transactions on*. Under review. August 2019.
- J7. Olivier Ouellette, **Antoine Lesage-Landry**, Benjamin Scheffel, Sjoerd Hoogland, F. Pelayo García de Arquer, and Edward H. Sargent. Spatial Collec-

tion in Colloidal Quantum Dot Solar Cells. *Advanced Materials*. Under review. August 2019.

- J6. **Antoine Lesage-Landry**, Han Wang, Iman Shames, Pierluigi Mancarella and Joshua A. Taylor. Online Convex Optimization of Multi-energy Building-to-grid Ancillary Services. *Control Systems Technology, IEEE Transactions on*. Under review. December 2018.
- J5. **Antoine Lesage-Landry**, Iman Shames and Joshua A. Taylor. Predictive Online Convex Optimization. *Automatica*. Under review, September 2018.
- J4. **Antoine Lesage-Landry**, Siyu Chen and Joshua A. Taylor. Estimating the Frequency Coupling Matrix from Network Measurements. *Control of Network Systems, IEEE Transactions on*, To be published. August 2019.
- J3. **Antoine Lesage-Landry** and Joshua A. Taylor. A Second-order Cone Model of Transmission Planning with Alternating and Direct Current Lines. *European Journal of Operational Research*. To be published. August 2019.
- J2. **Antoine Lesage-Landry** and Joshua A. Taylor. Setpoint Tracking with Partially Observed Loads. *Power Systems, IEEE Transactions on*, 32 (5): 5615 - 5627, September 2018.
- J1. **Antoine Lesage-Landry** and Joshua A. Taylor. The Multi-armed Bandit with Stochastic Plays. *Automatic Control, IEEE Transactions on*, 63 (7): 2280-2286, July 2018.

Conference Papers

- C5. Rodrigo Henríquez, **Antoine Lesage-Landry**, Joshua A. Taylor, Daniel Olivares and Matías Negrete-Pincetic. Managing Load Contract Restrictions with Online Learning. *Signal and Information Processing (GlobalSIP), IEEE Global Conference on*, November 2017.
- C4. Amr Mohamed, **Antoine Lesage-Landry** and Joshua A. Taylor. Dispatching Thermostatically Controlled Loads for Frequency Regulation Using Adversarial Multi-armed Bandits. *Electrical Power and Energy Conference (EPEC), 2017 IEEE*, October 2017.
- C3. **Antoine Lesage-Landry** and Joshua A. Taylor. Online Convex Optimization for Demand Response. *X Bulk Power Systems Dynamics and Control Symposium, IREP'2017 Symposium.*, August 2017.
- C2. **Antoine Lesage-Landry** and Joshua A. Taylor. Learning to Shift Thermostatically Controlled Loads. *Proceedings of the 50th Hawaii International Conference on System Sciences*, January 2017.

Seminars
and Talks

- C1. Sébastien Loranger, **Antoine Lesage-Landry**, Elton Soares de Lima Filho, Galina Nemova, Noelio O. Dantas, Paulo C. Morais, Raman Kashyap. Spectroscopic and life-time measurements of quantum dot doped glass for optical refrigeration: A feasibility study. *SPIE OPTO. International Society for Optics and Photonics*, February 2013.
- T5. *A Second-order Cone Model of AC–DC Transmission Expansion Planning*. Canadian Operational Research Society 61st Annual Conference, Saskatoon, SK. May 2019.
- T4. *Online Convex Optimization for Demand Response in Power Systems*. Conference on Information Sciences and Systems, Johns Hopkins University. Baltimore, MD, March 2019.
- T3. *Renewable Integration & Demand Response*. ECE1476 – LEDs & Solar Cells, University of Toronto, Toronto, ON. November 2018.
- T2. *Online Learning for Demand Response*. The University of Melbourne, Australia, February 2018.
- T1. *Estimation du mouvement de tumeur pulmonaire: un modèle basé sur des images diagnostiques 3D*. Student Conference of the Clinical Medical Physicists Association of Québec. Québec City, QC, November 2014.

Awards and Fellowships

Postdoctoral Fellowship

Natural Sciences and Engineering Research Council of Canada (NSERC), 2019-2021

Doctoral Research Scholarship

Fonds de recherche du Québec – Nature et Technologies (FQRNT), 2017-2019

Teaching Assistant Award

ECE department and ECE Student Club, University of Toronto, 2015

Master's Research Scholarship

FRQNT, 2016-2017

Canada Graduate Scholarship-Master's Program

NSERC, 2015-2016

Graduated with Distinction

École Polytechnique de Montréal, 2015

de Vinci Profile

École Polytechnique de Montréal, 2015

Action-Poly Citation

École Polytechnique de Montréal, 2015

Coopoly Involvement Scholarship

Coopoly, École Polytechnique de Montréal, 2015

Aramark Involvement Scholarship

Polytechnique Student Association and Aramark, 2014

Guy Faucher Scholarship

Polytechnique Foundation, 2014

Undergraduate Student Research Awards (USRA)

NSERC, 2014, 2013, 2012

Best student presentation award

Clinical Medical Physicists Association of Québec

Participation and initiation to academic research program scholarship

Polytechnique Foundation

Admission and Excellence scholarship

Polytechnique Foundation, 2011

Service

Journal referee

European Journal of Operational Research, IEEE Transactions on {Automatic Control, Control on Network Systems, Control Systems Technology, Power Systems}, IEEE Journal of Selected Topics in Signal Processing

Conference referee

IEEE-PES General Meeting, IEEE Conference on Decision and Control

Languages, Skills and Sports

French & English.

Python, MATLAB, Wolfram Mathematica, TensorFlow and L^AT_EX.

Rock climbing, mountain/road biking, hiking, hockey, Ultimate Frisbee.