

Antoine Lesage-Landry

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- Employment**
- Department of Electrical Engineering, Polytechnique Montréal**
Assistant Professor, January 2021 – present
 - Energy & Resources Group, University of California, Berkeley**
Postdoctoral Scholar, August 2019 – December 2020
 - Dept. of Electrical and Electronic Eng., The University of Melbourne**
Visiting Scholar, January 2018 – April 2018 and February 2019
- Education**
- University of Toronto**, Toronto, ON, Canada
Ph.D., Electrical Engineering, November 2019
 - Polytechnique Montréal**, Montréal, QC, Canada
B.Eng., Engineering Physics, June 2015
- Professional affiliation**
- Junior Engineer**, Ordre des Ingénieurs du Québec (OIQ)
 - Member**, Group for Research in Decision Analysis (GERAD)
 - Member**, Institute for Data Valorization (IVADO)
 - Member**, Réseau québécois de l'énergie intelligente (RQEI)
- Publications**
- Journal Papers**
- J11. **Antoine Lesage-Landry** and Duncan S. Callaway. Approximate Multi-Agent Fitted Q-Iteration. *Systems & Control Letters*, Under review. July 2021.
 - J10. **Antoine Lesage-Landry**, Joshua A. Taylor, and Duncan S. Callaway. Online Convex Optimization with Binary Constraints. To appear in *IEEE Transactions on Automatic Control*. February 2021.
 - J9. **Antoine Lesage-Landry**, Joshua A. Taylor, and Iman Shames. Second-order Online Nonconvex Optimization. To appear in *IEEE Transactions on Automatic Control*. November 2020.
 - J8. **Antoine Lesage-Landry**, Han Wang, Iman Shames, Pierluigi Mancarella, and Joshua A. Taylor. Online Convex Optimization of Multi-energy Building-to-grid Ancillary Services. *IEEE Transactions on Control Systems Technology*, 28 (6): 2416 - 2431. November 2020.

- J7. **Antoine Lesage-Landry** and Duncan S. Callaway. Dynamic and Distributed Online Convex Optimization for Demand Response of Commercial Buildings. *IEEE Control Systems Letters*, 4 (3): 632-637, July 2020.
- J6. **Antoine Lesage-Landry**, Siyu Chen, and Joshua A. Taylor. Estimating the Frequency Coupling Matrix from Network Measurements. *IEEE Transactions on Control of Network Systems*, 7 (2): 724 - 733. June 2020.
- J5. **Antoine Lesage-Landry**, Iman Shames, and Joshua A. Taylor. Predictive Online Convex Optimization. *Automatica*, 113: 108771, March 2020.
- J4. **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*, 281 (1): 174-185, February 2020.
- J3. Olivier Ouellette, **Antoine Lesage-Landry**, Benjamin Scheffel, Sjoerd Hoogland, F. Pelayo García de Arquer, and Edward H. Sargent. Spatial Collection in Colloidal Quantum Dot Solar Cells. *Advanced Functional Materials*, 3 (1): 1908200. January 2020.
- J2. **Antoine Lesage-Landry** and Joshua A. Taylor. Setpoint Tracking with Partially Observed Loads. *IEEE Transactions on Power Systems*, 32 (5): 5615 - 5627, September 2018.
- J1. **Antoine Lesage-Landry** and Joshua A. Taylor. The Multi-armed Bandit with Stochastic Plays. *IEEE Transactions on Automatic Control*, 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, and 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.
- S9. *Real-Time Decision-making for Demand Response Under Uncertainty*. GERAD Webinar. Montréal, QC, March 2021.
- S8. *Dynamic and Distributed Online Convex Optimization for Demand Response of Commercial Buildings*. 59th IEEE Conference on Decision and Control (CDC), online. December 2020.
- S7. *Online Convex Optimization with Binary Constraints for Demand Response*. 2020 INFORMS Annual Meeting, online. November 2020. Invited.
- S6. *Predictive Online Convex Optimization for Demand Response*. 2019 INFORMS Annual Meeting, Seattle, WA. October 2019. Invited.
- S5. *A Second-order Cone Model of AC–DC Transmission Expansion Planning*. Canadian Operational Research Society 61st Annual Conference, Saskatoon, SK. May 2019.
- S4. *Online Convex Optimization for Demand Response in Power Systems*. Conference on Information Sciences and Systems, Johns Hopkins University. Baltimore, MD, March 2019. Invited.
- S3. *Renewable Integration & Demand Response*. ECE1476 – LEDs & Solar Cells, University of Toronto, Toronto, ON. November 2018.
- S2. *Online Learning for Demand Response*. The University of Melbourne, Australia, February 2018.
- S1. *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.

Teaching	<p>Department of Electrical Engineering, Polytechnique Montréal Coordinator, ELE2700 – Analyse des signaux (Signal & Systems)</p> <p>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</p>
Awards and Fellowships	<p>Postdoctoral Fellowship Natural Sciences and Engineering Research Council of Canada (NSERC), 2019–2020</p> <p>Doctoral Research Scholarship Fonds de recherche du Québec – Nature et Technologies (FQRNT), 2017–2019</p> <p>Teaching Assistant Award ECE department and ECE Student Club, University of Toronto, 2015</p> <p>Master’s Research Scholarship FRQNT, 2016–2017</p> <p>Canada Graduate Scholarship-Master’s Program NSERC, 2015–2016</p> <p>Graduated with Distinction Polytechnique Montréal, 2015</p> <p>de Vinci Profile Polytechnique Montréal, 2015</p> <p>Undergraduate Student Research Awards (USRA) NSERC, 2014, 2013 (declined), 2012</p> <p>Best student presentation award Clinical Medical Physicists Association of Québec, 2013</p>
Service	<p>Journal referee Automatica, European Journal of Operational Research, IEEE Transactions on {Automatic Control, Control on Network Systems, Control Systems Technology, Power Systems, Smart Grid}, IEEE Control Systems Letter, IEEE Journal of Selected Topics in Signal Processing</p> <p>Conference referee IEEE-PES General Meeting, IEEE Conference on Decision and Control, Power Systems Computation Conference</p>
Languages, Skills and Sports	<p>French & English</p> <p>Python, MATLAB, Wolfram Mathematica, TensorFlow and L^AT_EX.</p> <p>Rock climbing, mountain/road biking, hiking, hockey, Ultimate Frisbee.</p>