

Ryan Cory-Wright

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Education

Massachusetts Institute of Technology, Cambridge, MA
Candidate for PhD in Operations Research; expected completion, June 2021. GPA: 5.0
Advisor: Prof. Dimitris Bertsimas

University of Auckland, Auckland, New Zealand
BE (Hons) in Engineering Science, May 2017. GPA 8.84/9.00.
Thesis title: *Pricing Wind Under Uncertainty*
Advisors: Profs. Andy Philpott and Golbon Zakeri.
Completed in three years via the accelerated pathway program; a highly intensive program which comprises direct entry to part II and three additional courses per year.

Work and Research Experience

- 2017-Present** **Massachusetts Institute of Technology**, Cambridge, MA
Research Assistant
Advisor: Dimitris Bertsimas
Developing scalable algorithms for solving mixed-integer quadratic programs exactly. More generally, working on providing high-quality interpretable solutions to problems which arise at the intersection of optimization and machine learning.
- 2016-2017** **University of Auckland**, Auckland, New Zealand
Research Assistant
Advisor: Golbon Zakeri
Worked on methods for incorporating intermittent renewable energy into wholesale electricity markets via stochastic optimization. This comprised back-testing a stochastic dispatch mechanism on the New Zealand Electricity Market, and measuring the impact which changing the dispatch mechanism would have; on both the aggregate system and individual participants.
- 2014-2016** **Derceto Ltd**, Auckland, New Zealand
Assistant Optimization Engineer
Assisted with installing a pump-scheduling optimization tool for two municipal water providers. Created a VBA/SQL tool to automate a 9-step process for updating historical demand curves, which currently saves Derceto 30 hours per client per year. Upgraded several other VBA tools.

Publications

- "Payment mechanisms for electricity markets with uncertain supply"*, with Andy Philpott and Golbon Zakeri, Operations Research Letters (accepted), 2018. <https://doi.org/10.1016/j.orl.2017.11.017>
- "Who benefits from stochastic dispatch?"*, with Golbon Zakeri, working paper.

Presentations

"Stochastic Scheduling Pricing and Dispatch", with Golbon Zakeri and Andy Philpott, presented at the EPOC mini workshop, July 2017.

"Cost-Recovering, Revenue-Adequate Single-Settlement Schemes for Electricity Markets", with Andy Philpott and Golbon Zakeri, presented at ORSNZ, December 2016.

Honors and Awards

- 2016** Operations Research Society of New Zealand Young Practitioner Prize Competition, 1st Place
"Cost-Recovering, Revenue-Adequate Single-Settlement Schemes for Electricity Markets", with Andy Philpott and Golbon Zakeri.
For the best conference paper by a presenter within 5 years of graduation.
- 2016** Senior Scholar Award, University of Auckland
For the highest GPA within graduating students in Engineering Science.
- 2014-2016** Deans Honours List x3, Faculty of Engineering, University of Auckland
For earning a GPA within the top 5% of students in Engineering Science in a calendar year.
- 2014-2016** First in Course Award x5, University of Auckland
For earning the highest mark in a course at the University of Auckland.
- 2013** NZQA Outstanding Scholar Award
For placing in the top 50 students in the 2013 NZQA scholarship exams.

Skills and Activities

Programming Languages: Julia, R, SQL, MATLAB, C++, HTML, CSS.

Optimization Software: JuMP, AMPL, GAMS, Gurobi, CPLEX.

Software: LaTeX, InDesign, Photoshop.

Languages: English (native), French (conversational), German (beginner).

Extracurriculars: Skiing, Running, Hiking, Water Polo.

- Citizenship** Citizen of New Zealand, Ireland.