

# Ryan Cory-Wright

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**Education**      **Massachusetts Institute of Technology**, Cambridge, MA  
Candidate for PhD in Operations Research; expected completion, June 2022. 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.

**Publications**

*"On stochastic auctions in risk-averse electricity markets with uncertain supply"*, with Golbon Zakeri, submitted to European Journal of Operational Research, October 2018.

*"A scalable algorithm for sparse and robust portfolios"*, with Dimitris Bertsimas, submitted to Operations Research, June 2018.

*"Payment mechanisms for electricity markets with uncertain supply"*, with Andy Philpott and Golbon Zakeri, Operations Research Letters. **46**(1):116-121, 2018. <https://doi.org/10.1016/j.orl.2017.11.017>

**Presentations**

*"A scalable algorithm for sparse and robust portfolios"*, with Dimitris Bertsimas, to be presented at INFORMS, November 2018.

*"Payment mechanisms and risk-aversion in electricity markets with uncertain supply"*, with Golbon Zakeri, presented at ISMP Bordeaux, July 2018.

*"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

**2017**      Senior Scholar Award, University of Auckland  
For the highest GPA within graduating students in Engineering Science.

**2016**      ORSNZ Student Paper Competition, 1<sup>st</sup> 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.

**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.

### **Work and Research Experience**

**2017-Present** **Massachusetts Institute of Technology**, Cambridge, MA  
*Research Assistant*  
Advisor: Dimitris Bertsimas  
Developing high-quality interpretable solutions to problems which arise at the intersection of optimization and machine learning; for instance, sparsity-constrained optimization problems.

**2016-2017** **University of Auckland**, Auckland, New Zealand  
*Research Assistant*  
Advisor: Golbon Zakeri  
Developed 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, extending the stochastic dispatch mechanism to incorporate risk-aversion, and measuring the impact of the dispatch mechanism on the aggregate system.

**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.

### **Skills and Activities**

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

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

*Software:* LaTeX, InDesign, Photoshop.

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

*Extracurriculars:* Skiing, Running, Hiking, Water Polo.

**Citizenship** Citizen of New Zealand, Ireland.