

Regan Baucke

CERMICS Laboratory
Level 3, Bâtiment Coriolis
École des Ponts ParisTech
Champs-sur-Marne, 77455, France
email: regan.baucke@enpc.fr

Born: July 17, 1992—Auckland, New Zealand
Nationality: New Zealand
Language: English

Current position

Post-doctoral researcher, CERMICS, Ecole des Ponts ParisTech.

Areas of specialisation

My expertise lie in stochastic programming, especially algorithms in multistage stochastic programming. The foremost theme of my thesis is multistage minimax dynamic programmes; we outline a new algorithm for solving such problems, study the algorithm's convergence properties and develop risk-averse stochastic programming formulations in the minimax framework.

My post-doctoral research focuses on attaining computable, sure, bounds in stochastic programming and analysing the convergence of such bounds.

Education

2018	PhD in Operations Research, University of Auckland
2014	BE (HONS) in Engineering Science (First class honours), University of Auckland

Awards

2018	DIM Math Innov Post-doctoral Laureate
2015	University of Auckland Doctoral Scholarship, University of Auckland
2015	Energy Education Trust of New Zealand Doctoral Scholarship, EETNZ

Publications & talks

JOURNAL ARTICLES

- 2018a Baucke, Downward, Zakeri. [A deterministic algorithm for solving stochastic minimax dynamic programmes](#), *Optimization Online*. Under review with *Mathematics of Operations Research*.
- 2018b Downward, Dowson, Baucke. [On the convergence of a cutting plane method for multistage stochastic programming problems with stagewise dependent price uncertainty](#), Under review with *Operations Research Letters*.
- 2018c Baucke. [An algorithm for solving infinite horizon Markov dynamic programmes](#), *Optimization Online*. Under review with *Operations Research Letters*.

TALKS

- 2018 Minimax dynamic programmes, *International Symposium on Mathematical Programming, Bordeaux*
- 2017 A deterministic algorithm for solving multistage stochastic programming problems, *INFORMS General Meeting, DOS Seminar at ISYE Georgia Tech, Industrial Engineering and Management Sciences Talk at Northwestern*.
- 2016 Multistage risk aversion applied to the electricity sector, *INFORMS International Meeting*

Teaching

- 2015-16 Teaching Assistant - ENGEN 131 “Engineering Computation and Software Development”
- 2015-16 Teaching Assistant - ENGSCI 391 “Optimisation in Operations Research”

Groups & Organisations

- 2014-18 Operations Research Society of New Zealand Student Member
- 2015 Graduate Researcher within the Energy Centre at The University of Auckland
- 2015-18 Graduate Student Researcher at The Electrical Power Optimisation Center (EPOC): a research group within the Department of Engineering Science.
- 2016-18 INFORMS Student Member.

References

Assoc Prof. Golbon Zakeri, *PhD Supervisor*. Contact email: g.zakeri@auckland.ac.nz
Dr. Anthony Downward, *PhD Supervisor*. Contact email: a.downward@auckland.ac.nz
Prof. Andy Philpott, *EPOC Codirector*. Contact email: a.philpott@auckland.ac.nz
Dr. Vincent Leclere, *Post-doctoral Supervisor*. Contact email: vincent.leclere@enpc.fr
Prof. Tito Homem-de-Mello, *Thesis referee*. Contact email: tito.hmello@uai.cl