

PROGRAM

- 8:15 *Doors open*
- 8.35 *Opening*
Mike Calford, Deputy Vice Chancellor (Research)
Jon Borwein, Laureate Professor and CARMA Director
- 8.45 *Optimisation, simulation and statistics for nearly everything*
Simon Dunstall, CSIRO
- 9.30 *Optimised production in an aluminium smelter – but is this real operations research?*
David Ryan, University of Auckland
- 10.15 *Morning tea*
- 10.45 *Disaster management for multiple interdependent infrastructure*
Pascal van Hentenryck, University of Melbourne & NICTA
- 11.30 *Planning and operating the largest coal export chain in the world*
Tracey Giles, Hunter Valley Coal Chain Coordinator
- 12.15 *Consolidation and inventory management in transport systems*
Martin Savelsbergh, University of Newcastle
- 13.00 *Closing*
- 13.15 *Lunch*

Better Planning, Better Operations, Better Outcomes



SPEAKERS

Simon Dunstall, Ph.D.

Research Scientist, Commonwealth Science and Industrial Research Organisation (CSIRO)

Simon is a researcher within CSIRO's Government and Commercial Services theme. He contributes to and leads a large slice of CSIRO's activity in optimisation and analytics for logistics, transport and infrastructure in particular. In addition, he is a committee member for the Logistics Association of Australia (LAA) and the Australian Society for Operations Research.

David Ryan, Ph.D.

Professor, Department of Engineering Science, University of Auckland

David is New Zealand's leading authority on Operations Research and this country's most influential contributor to the field. He has developed technology which is now a fundamental component of optimisation software used worldwide for solving complex logistics problems. He is a strong advocate for the use of mathematical optimisation techniques to solve problems of significant industrial importance. David's contributions have been recognised internationally in numerous ways including his election as a Fellow of the Royal Society of New Zealand and as a Fellow of the Institute for Operations Research and the Management Sciences (INFORMS), making him one of only 12 such Fellows from outside the United States. INFORMS is the world's largest professional organisation for Operations Research. David was awarded the Pickering Medal in 2011, which recognises excellence and innovation in the practical application of technology and is awarded by the Royal Society of New Zealand.

Pascal van Hentenryck, Ph.D.

Professor, School of Engineering, University of Melbourne & Leader Optimisation Research, National ICT Australia Ltd. (NICTA)

Pascal is a pioneer in the field of constraint programming. Before coming to Australia he was Professor of Computer Science at Brown University and Director of the university's Optimisation Laboratory. Pascal is one of the most highly cited researchers in computer science. He undertook foundational work on constraint programming in the 1980s, and then developed three major systems: the OPL modelling language supported by IBM and used by operations researchers worldwide; Numerica, the first system to show the power of constraint programming to solve complex non-linear problems, and the Comet programming language which supports constraint-based local search, constraint programming and mathematical programming. His recent research on disaster planning and response has also been deployed to help federal agencies in the United States to mitigate the effects of hurricanes on coastal areas. At NICTA, Pascal leads a team of 48 staff to tackle research challenges in areas such as supply chains, smart grids, disaster recovery, computational biology and social networks.

Tracey Giles, B. Info Sc., MBA.

Specialist Port and Optimisation Modelling, Hunter Valley Coal Chain Coordinator (HVCCC)

Tracey has over 30 years of experience in the manufacturing and mining sectors, in IT, analytical, project management, process improvement and modelling roles. Most recently, she has focussed on supply chain capacity and process modelling.

Martin Savelsbergh, Ph.D.

Professor, School of Mathematical and Physical Sciences, University of Newcastle

Martin is a logistics and optimization specialist with over 20 years of experience in mathematical modeling, operations research, optimization methods, algorithm design, performance analysis, supply chain management, production planning, and transportation. Martin has published over 100 research papers in many of the top operations research and optimization journals. He has a track record of creating innovative techniques for solving large-scale optimization problems in a variety of areas, ranging from vehicle routing and scheduling, to per-seat on-demand air transportation, to service network design. Martin has demonstrated an ability to design and implement highly sophisticated and effective optimization algorithms as well as an ability to analyze practical decision problems and translate the insights obtained into optimal business solutions.