

2020 Christopher Heyde Medal



Professor Ryan Loxton is pioneering new mathematical algorithms for optimising complex systems in a wide range of applications such as mining, robotics, agriculture, and industrial process control. Such systems are typically of enormous scale in practice, with hundreds of thousands of inter-related variables and constraints, multiple conflicting objectives, and numerous candidate solutions that can easily exceed the total number of atoms in the solar system, overwhelming even the fastest computers.

Professor Loxton's research provides new mathematical advances for overcoming this complexity and deriving fast algorithms for real-world use. He has collaborated with many companies with his work leading to innovative mathematical techniques for solving real-world problems such as providing algorithms for an award-winning Quantum technology platform that optimises the sequence and timing of maintenance activities in mine plant shutdowns.



[Prof Ryan Loxton](#)

Theme Lead

Theme 3

2020-01-31

Award Details