

# Prof Ryan Loxton



Prof Ryan Loxton

Theme Lead

## Theme 3

Ryan is an ARC Future Fellow and the discipline lead for mathematics and statistics at Curtin. His work focuses on using advanced mathematics to optimise complex processes in a wide range of applications such as mining, oil and gas, agriculture, and industrial process control.

Ryan is a passionate advocate for industry engagement and has worked with many companies including Woodside Energy, Linkforce, Fleetcare, and Vekta Automation.

Ryan's research interests lie in the areas of optimisation, optimal control, and data science.

Ryan is the Theme Leader for Research Theme Three focusing on optimising maintenance planning and scheduling. He represents Curtin and Theme Three on the Strategic Risk and Reporting Board and PhD Support Panel.

## Publications

- [Long-term maintenance optimization for integrated mining operations \(...\)](#) —

### Journal Article

[Yingying Yang](#)

**Authors: Yingying Yang, Ryan Loxton, Andrew L. Rohl, Hoa T. Bui**

2023-11-16

- [Cutting Plane Algorithms are Exact for Euclidean Max-Sum Problems \(...\)](#) —

### Journal Article

[Dr Hoa Bui](#)

**Authors: Hoa T Bui, Sandy Spiers, Ryan Loxton**

2023-09-17

- [Bayer digestion maintenance optimisation with lazy constraints and Benders decomposition \(...\)](#) —

### Journal Article

[Sandy Spiers](#)

**Authors: Sandy Spiers, Hoa T. Bui, Ryan Loxton, Moussa Reda Mansour, Kylie Hollins, Richard Francis, Christopher Martindale, Yogesh Pimpale**

2023-09-16

- [Cutting plane algorithms for nonlinear binary optimization \(...\)](#) —

### Journal Article

[Dr Hoa Bui](#)

**Authors: Bui, Hoa; T Lin, Qun; Loxton, Ryan**

2022-03-18

- [An exact cutting plane method for solving p-dispersion-sum problems \(...\)](#) —

### Journal Article

[Sandy Spiers](#)

**Authors: Sandy Spiers, Hoa T. Bui, Ryan Loxton**

2022-07-22

- [Approximate dynamic programming for an energy-efficient parallel machine scheduling problem \(...\)](#) —

### Journal Article

[Dr Mojtaba Heydar](#)

**Authors: Dr Mojtaba Heydar, Dr Elham Mardaneh, Proj Ryan Loxton**

2022-10-01

- [A Note on the Finite Convergence of Alternating Projections \(...\)](#) —

Ryan supervisors Research Fellows Dr Hoa Bui and Dr Mojtaba Heydar. He is supervising PhD students Yingying Yang and Sandy Spiers. He is also Co Supervising PhD student Ponpot Jartrillaphand.

Ryan is an academic mentor for the Centre.

Research at Curtin

## Journal Article

[Dr Hoa Bui](#)

**Authors: Hoa Bui, Ryan Loxton, Asghar Moeini**

2021-05-09

- [Minimizing equipment shutdowns in oil and gas campaign maintenance \(...\)](#) —

## Journal Article

[Prof Ryan Loxton](#)

**Authors: Z.Seif, R.Loxton, E.Mardaneh and A.Lockwood**

2020-06-29

- [Branch-and-price for clash-free periodic supply vessel planning problem with split delivery and variable service time \(...\)](#) —

## Journal Article

[Dr Elham Mardaneh](#)

**Authors: Elham Mardaneh, Mojtaba Heydar, Ryan Loxton**

2022-09-09

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## Presentations

- [2020 ANZIAM Early-career Workshop \(...\)](#) —



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2020-01-31

- [AMPeak. Annual conference put on in Perth by the Asset Management Council \(...\)](#) —



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2019-04-08

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## Awards and Prizes

- [2020 Christopher Heyde Medal \(...\)](#)

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## Tools

### Content by label

There is no content with the specified labels