Dr Hoa Bui

[Dr Hoa Bui](#)

Research Fellow

[Theme 3](#)

Hoa Bui is an applied mathematician who works on discrete nonlinear optimisation and operations research. Her primary research is to develop fast and exact algorithms backed up by rigorous mathematical theory for solving industrial-size optimisation problems.

She obtained her B.Sc. in Mathematics in 2016 and a PhD in Applied Mathematics in 2020. In 2020, she won the WIMSIG Maryam Mirzakhani Award from the Australian Mathematical Society.

She publishes research papers in Q1 journals such as European Journal of Operations Research, Journal of Optimization Theory and Applications, Journal of Combinatorial Theory - Series A.

Hoa is co-supervising PhD candidates Yingying Yang, Sandy Spiers and Ponpot Jartnillaphand

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

- [Single-Projection Procedure for Infinite Dimensional Convex Optimization Problems](#) (...) —

Journal Article

Dr Hoa Bui

Authors: Hoa T. Bui* Regina S. Burachik† Evgeni A. Nurminski‡ Matthew K. Tam
2022-10-21

- [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

- [The Impact of Changes in Resolution on the Persistent Homology of Images](#) (...) —

Conference Publishing

Dr Hoa Bui

Authors: Teresa Heiss, Sarah Tymochko, Brittany Story, Adelie Garin, Hoa Bui, Bea Bleile, and Vanessa Robins
2022-01-13
- The linkedness of cubical polytopes: The cube (...) —

Journal Article

Dr Hoa Bui

Authors: Hoa T. Bui, Guillermo Pineda-Villavicencio, Julien Ugon
1970-01-01
- Geometric and Metric Characterizations of Transversality Properties (...) —

Journal Article

Dr Hoa Bui

Authors: Hoa T. Bui, Nguyen Duy Cuong, Alexander Y. Kruger
2020-03-05
- Extremal Principle: Nonlinear Characterizations of Non-Intersection Properties (...) —

Journal Article

Dr Hoa Bui

Authors: Dr Hoa Bui, Prof. Alex Kruger
2020-06-22
- A Note on the Finite Convergence of Alternating Projections (...) —

Journal Article

Dr Hoa Bui

Authors: Hoa Bui, Ryan Loxton, Asghar Moeini
2021-05-09
- Connectivity of cubical polytopes, Journal of Combinatorial Theory (...) —

Journal Article

Dr Hoa Bui

Authors: Hoa Bui, Guillermo Pineda-Villavicencio, Julien Ugon
2019-08-06
- Some new characterizations of intrinsic transversality in Hilbert spaces (...) —

Journal Article

Dr Hoa Bui

Authors: Nguyen Hieu Thao, Hoa Bui, Nguyen Duy Cuong and Michel Verhaegen
2020-02-12

Presentations

- Optimisation model for sixteen-week Maintenance Planning in Alcoa (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2021-02-12

- On outer approximation method for nonconvex binary optimization (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2023-07-10

- Optimisation platform for shutdown maintenance scheduling (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2022-10-07

- Scheduling Tool for Furnace Outages at Kwinana Nickel Refinery by Hoa Bui (...) —

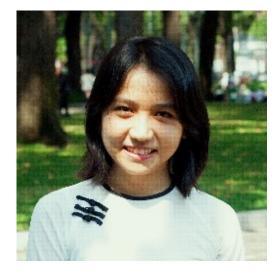

Dr Hoa Bui

Research Fellow

Theme 3
2022-03-11

- Optimisation Methods for Maintenance Scheduling in the Mining industry (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2022-07-20

- Master Class - Solution Methods for Practical Scheduling Models (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2021-04-15

- NSW ANZIAM 2021 Mid-year Conference - Optimisation Methods for Maintenance Scheduling in the Mining Industry. (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2021-07-09

- Connectivity and Linkedness of the Graph of Cubical Polytopes (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2020-07-09

- Zero Duality Gap Conditions via Abstract Convexity (...) —

Dr Hoa Bui

Research Fellow

Theme 3
2020-07-08

Awards and Prizes

- Australian Mathematical Society Lift-off Fellowship (...)
- AustMS WIMSIG Maryam Mirzakhani Award (...)

Tools

- Schedule Optimisation Tools (...) —

2020-01-31
Tools for common schedule optimisation problems

Theme 3 Theme 5