

# FELIX THOMSEN

Sydney, Australia

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## EDUCATION

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**The University of Sydney, Australia**

July 2020 - Present

Doctor of Philosophy (Physics)

Advisor: Stephen Bartlett

**The University of Sydney, Australia**

March 2015 - December 2019

Bachelor of Science (Advanced) (Physics) & Bachelor of Engineering Honours (Mechatronics)

Minors: Computer Science, Space Engineering

First Class Honours

**The University of Pennsylvania, United States**

August 2018 - December 2018

Undergraduate Exchange Student (Physics & Mathematics)

## RESEARCH EXPERIENCE

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**Quantum Theory Group, University of Sydney**

July 2020 - Present

*PhD Student*

**Q-CTRL**

December 2019 - October 2020

*Quantum Control Engineer*

**Quantum Theory Group, University of Sydney**

February 2019 - November 2019

*Honours Student*

**Particle Physics Group, University of Sydney**

January 2019 - February 2019

*Summer Research Student*

**Complex Systems Group, University of Sydney**

July 2017 - July 2018

*Research Assistant*

## PUBLICATIONS

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- A.R.R. Carvalho, H. Ball, M. J. Biercuk, M. R. Hush, **F. Thomsen**. Error-Robust Quantum Logic Optimization Using a Cloud Quantum Computer Interface. *Physical Review Applied*, 2021. [More Information]
- B. Lee, **F. Thomsen**, D. Abood, Z. Liu, M. Chea, R. Nath, S. Wu. Wedgetail: A Sounding Rocket to Lift off Rocketry Education in Australia. 68th International Astronautical Congress, 2017. [More Information]

## ORAL AND POSTER PRESENTATIONS

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- "Moving beyond the surface code: Low-overhead quantum computing with the color code". Poster at EQUUS annual workshop. December 2nd, 2021.
- "Low Overhead Quantum Computing Using Color Code Lattice Surgery". Invited talk at Sydney Quantum Information Theory workshop Coogee'21. February 10th, 2021.
- "Giving the Color Code its Edge Back: Low Overhead Quantum Computing Using Color Code Lattice Surgery". Poster at Sydney Quantum Academy Student Mini Conference. December 11th, 2020.

## AWARDS AND HONOURS

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- Sydney Quantum Academy PhD Scholarship (2020)
- School of Computer Science Senior High Honour Roll, University of Sydney (2018)
- Science Research Experience Scholarship, University of Sydney (2018)
- Vice Chancellor Global Mobility Scholarship, University of Sydney (2018)
- Denison Research Scholarship, University of Sydney (2017)

## EXTRACURRICULAR ACTIVITIES

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**IBM Qiskit Camp Asia**

November 2019

*Attendee*

**University of Sydney Rocketry Society**

January 2017 - July 2017

*Lead Recovery Engineer*

## SKILLS

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<b>Tools</b>	Python, Qiskit, QuTip, MatLab, Git
<b>Languages</b>	English ( <i>native</i> ), German ( <i>native</i> )

## REFEREES

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**Stephen Bartlett**

*Professor*

University of Sydney

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**Benjamin Brown**

*Research Fellow*

University of Sydney

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