

# Shun Yin Cheung

PhD student in Gravitational-Wave Astronomy  
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Affiliations: Monash University, Ozgrav  
First-Class Honours

## EDUCATION

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**Monash University**, Melbourne, Australia  
Bachelor of Science Advanced - Research (Honours)  
Thesis Title: Ultrafast Carrier Dynamics in 2D MoS<sub>2</sub> using  
Time-Resolved Pump-Probe Terahertz Spectroscopy

March 2019 — December 2022  
First-Class Honours

**Monash University**, Melbourne, Australia  
Doctor of Philosophy: Astrophysics

March 2023 — Current

## PROJECTS

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### Searching for Extra Polarisations in Gravitational-Waves using a Gaussian Process

- Searching for extra polarisations in null streams using a gaussian process.
- Optimising the gaussian processor to run faster.
- Developing and implementing a neural network into gaussian processor to speed up the code.

### Searching for Gravitational-Wave Memory in O4 Data

- Analyse the O4 data for evidence of memory.
- Develop and automate an analysis pipeline to detect memory.

## PUBLICATIONS

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**Does spacetime have memories? Searching for gravitational-wave memory in the third LIGO-Virgo-KAGRA gravitational-wave transient catalogue**  
Published in Classical and Quantum Gravity on May 2024

- Authors: **Shun Yin Cheung**, Paul D. Lasky, Eric Thrane. DOI: 10.1088/1361-6382/ad3ffe.

**Possible Causes of False General Relativity Violations in Gravitational Wave Observations**  
Submitted to Arxiv on May 2024

- Authors: Anuradha Gupta, ..., **Shun Yin Cheung**, ..., B. S. Sathyaprakash.

## AWARDS

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**Winter Vacation Research Scholarship**  
Awarded \$1400 on the condition I worked a 4-week research project over the winter break.

June 2021

**Research First Scholarship**  
Awarded \$2100 on the condition I worked a 6-week research project over the summer break.

December 2019

## EXPERIENCE

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### Teaching Assistant *Monash University*

February 2024 — Current

- Supervise students in physics laboratories.
- Mark tests and reports.
- Invigilate assessments.

### High School Tutor *Self-employed*

January 2022 — February 2024

- Offered tutoring to high school students in physics and mathematics.

## SKILLS

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- **Programming:** Python, SQL, Mathematica
- **Communicating and presenting complex ideas**
- **Collaborating with other people**

## REFERENCES

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### Prof. Eric Thrane

*Professor, School of Physics and Astronomy, Monash University*

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Mobile: 9902 0393

### Associate Prof. Paul Lasky

*Associate Professor, School of Physics and Astronomy, Monash University*

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