

Shanika Galaudage

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Education

Doctor of Philosophy | Monash University

Feb 2019 – Aug 2022

Dissertation: *Gravitational-wave inference in the catalogue era*

(expected)

Supervisor: Eric Thrane and Ilya Mandel

Bachelor of Science Advanced – Research (Honours) | Monash University

2018

Majors: Astrophysics and Physics – 1st class honours

Thesis: *Searching for X-ray pulsations from continuous gravitational-wave candidates*

Supervisors: Duncan Galloway and Karl Wette (ANU)

Awards & Scholarships

J. L. William PhD Scholarship | Monash University

2019

Research Training Program (RTP) Stipend | Australian Government

2019

Monash Centre for Astrophysics (MoCA) Prize | Monash University

2018

Awarded to the top Astrophysics honours student.

ECR / Student Travel Award | OzGrav

2018

J. L. William Honours Scholarship | Monash University

2018

Publications

Below is a list of publications I have made a significant contribution to. I am an author on numerous publications as part of the LIGO Scientific Collaboration.

The LIGO Scientific Collaboration; the Virgo Collaboration, *Population properties of compact objects from the second LIGO-Virgo Gravitational-Wave Transient Catalog*, Accepted ApJL (2021) [arXiv:2010.14533](https://arxiv.org/abs/2010.14533)

Member of paper writing team; significant contribution to analyses.

Galaudage, S., Adamcewicz, C., Zhu, X.-J., Stevenson, S. and Thrane, E. *Heavy double neutron stars: birth, mid-life and death*, [ApJL](https://arxiv.org/abs/2010.14533) 909 (2021) L19

Romero-Shaw, I. M., Talbot, C., Biscoveanu, S., D'Emilio, V., Ashton, G., Berry, C. P. L., Coughlin, S., **Galaudage, S.**, et al., (51 authors), *Bayesian inference for compact binary coalescences with BILBY: validation and application to the first LIGO-Virgo gravitational-wave transient catalogue*, [MNRAS](https://arxiv.org/abs/2010.14533) 499 (2020) 3295

Bilby and Bilby_Pipe developer; contribution to online Bilby (pipeline from trigger to parameter estimation).

Galaudage, S., Talbot, C. and Thrane, E. *Gravitational-wave inference in the catalog era: evolving priors and marginal events*, [PRD](https://arxiv.org/abs/2010.14533) 102 (2020) 083026

Galaudage, S., Wette, K., Galloway, D. K., and Messenger, C., *Deep searches for X-ray pulsations from Scorpius X-1 and Cygnus X-2 in support of continuous gravitational-wave searches*, in prep; expected submission to MNRAS June 2021 [draft available upon request]

Conferences, Presentations & Workshops

Open Data Workshop #4 LIGO (Virtual) – Invited Talk <i>Parameter Estimation with Bilby</i>	May 2021
Gravitational Wave group presentation University of Queensland (Virtual) – Invited Talk <i>Population properties of binary black holes: Results from LIGO/Virgo O3a</i>	Apr 2021
ECR Australia Seminar series ASTRO3D (Virtual) – YouTube <i>Population properties of binary black holes: Results from LIGO/Virgo O3a</i> A series showcasing Australia's Early Career Researchers to international audience.	Mar 2021
Collaboration Meeting LIGO/Virgo/KAGRA (Virtual) – Poster – Honourable Mention	Mar 2021
Annual Meeting Australian National Institute for Theoretical Astrophysics (Virtual) <i>Heavy Double Neutron Stars: birth, midlife and death</i>	Feb 2021
Public Webinar LIGO/Virgo Collaboration (Virtual) – YouTube – Invited Talk Presented results from LIGO/Virgo publications alongside a panel of experts. <i>Population Properties of Compact Objects from the Second LIGO-Virgo Gravitational-Wave Transient Catalog</i>	Nov 2020
School of Physics and Astronomy colloquium Monash University (Virtual) <i>Population properties of binary black holes: Results from LIGO/Virgo O3a</i>	Oct 2020
Annual Scientific Meeting Astronomical Society of Australia (Virtual) <i>Gravitational Wave inference in the catalogue era</i>	Jul 2020
Annual Scientific Meeting Astronomical Society of Australia <i>Selection Effects in Gravitational Wave Astronomy</i>	Jul 2019
Parameter Estimation F2F workshop LIGO PE Group	Feb 2019
Annual Scientific Meeting Astronomical Society of Australia <i>Searching for X-ray pulsations from Low Mass X-ray Binaries</i>	Jul 2018

Leadership & Mentoring

Media Advisory Committee – ECR representative OzGrav Role involves ensuring voices of Early Career Researchers are heard and represented for media related opportunities	2021
Women in Physics and Astronomy Committee Monash University Role involves organising events and coordinating a mentoring program as well as creating a supportive environment for women in physics and astronomy.	2020 – 2021
Palladian Mentoring Program Mac. Robertson Girls' High School	2020
Science Peer Mentoring Program Monash University	2018
Advanced Research Mentoring Program Monash University	2017 – 2018
Global Leadership Advanced Research Program Monash University Winter intensive unit for inter-disciplinary research and development of leadership skills	Jul 2017
Science Future Leaders Program Monash University	2015

Outreach & Engagement

Media Article Space Australia – Article	May 2021
Podcast AstroPhiz – SoundCloud Discussion of research and issues of diversity & inclusion to a general audience.	Apr 2021
Social Media Coordinator Space Australia (Freelance role) Communicate Australian space news with general public.	2021 – present
Victoria representative & Social Media Manager IncludeHer Movement A campaign to improve representation of women in high-school STEM courses.	2020 – present
MySci Program Volunteer OzGrav and Monash Astrophysics Create & deliver a workshop for year 11/12 students about gravitational waves.	Feb 2020
Outreach team member OzGrav	2019 – present

Teaching Experience

Teaching Associate Monash University	2018 – present
<ul style="list-style-type: none">· ASP1010 - Earth to cosmos, Introductory astronomy· ASP2062 - Introduction to astrophysics· ASP3051 - Relativity and cosmology· PHS1001 - Foundation physics· PHS1011 - Classical physics and relativity· PHS1022 - Fields and quantum physics· BMS1031 - Medical biophysics	