

Shanika GALAUDAGE

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Employment

- 2023 – **Postdoctoral Researcher** | Observatoire de la Côte d'Azur (Lagrange laboratory / Virgo ARTEMIS group)
- 2023 **Research Assistant** | Monash University + OzGrav

Education

- 2023 **Doctor of Philosophy** | Monash University – [gravitational waves](#), [compact binaries](#), [population studies](#)
Dissertation: Population studies of black holes & neutron stars: the emerging picture from GW astronomy
Supervisor: Eric Thrane; Co-supervisor: Ilya Mandel
- 2018 **Bachelor of Science Advanced – Research (Honours)** | Monash University – [1st class honours](#)
Thesis: Searches for X-ray pulsations from Gravitational Wave candidates
Supervisors: Duncan Galloway and Karl Wette

Publications

The following list includes collaboration publications that I have made a significant contribution to.

- 2023 LIGO/Virgo/KAGRA Collaboration, (incl. **Galaudage, S.**), Population of Merging Compact Binaries Inferred Using Gravitational Waves through GWTC-3, [PRX](#) 13, 011048 – [Member of paper writing team](#)
- 2022 Ross, K., **Galaudage, S.**, Clark, T., Lowson, N., Battisti, A., Adam, H., Ross, A. K., Sweaney, N., Invisible women: Gender representation in high school science courses across Australia, *Submitted to AJE*
- 2022 Tong, H., **Galaudage, S.**, Thrane, E., Population properties of spinning black holes using the gravitational-wave transient catalog 3, [PRD](#) 106, 103019
- 2022 Farah, A. M., Fishbach, M., Essick, R., Holz, D. E., **Galaudage, S.**, Bridging the Gap: Categorizing Gravitational-Wave Events at the Transition Between Neutron Stars and Black Holes, [ApJ](#) 931, 2
- 2022 Essick, R., Farah, A. M., **Galaudage, S.**, Talbot, C., Fishbach, M., Thrane, E., Holz, D. E., Probing Extremal Gravitational-Wave Events with Coarse-Grained Likelihoods, [ApJ](#) 926, 34
- 2022 **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, [MNRAS](#) 501, 1745
- 2021 **Galaudage, S.**, Talbot, C., Nagar, T., Jains, D., Thrane, E. and Mandel, I., Building better spin models for merging binary black holes: Evidence for non-spinning and rapidly spinning nearly aligned sub-populations, [ApJL](#) 921, L15
- 2021 **Galaudage, S.**, Adamcewicz, C., Zhu, X.-J., Stevenson, S. and Thrane, E., Heavy double neutron stars: birth, mid-life and death, [ApJL](#) 909, L19
- 2021 LIGO/Virgo Collaboration, (incl. **Galaudage, S.**), Population properties of compact objects from the second LIGO-Virgo Gravitational-Wave Transient Catalog, [ApJL](#) 913 L7 – [Member of paper writing team](#)
- 2020 **Galaudage, S.**, Talbot, C. and Thrane, E., Gravitational-wave inference in the catalog era: evolving priors and marginal events, [PRD](#) 102, 083026
- 2020 Romero-Shaw, I. M., et al., (incl. **Galaudage, S.**), Bayesian inference for compact binary coalescences with BILBY: validation and application to the first LIGO-Virgo gravitational-wave transient catalogue, [MNRAS](#) 499 3295

Awards, Prizes + Scholarships

- 2022 **Postgraduate Publication Award** | Monash University
- 2019 – 22 **J. L. William PhD Scholarship** | Monash University
- 2018 **MoCA Prize** | Monash University – [Awarded to best Honours student in Astrophysics](#)
- 2018 **J. L. William Honours Scholarship** | Monash University

Conferences, Presentations + Workshops

- 2023 **Neutron Star / Gravitational Wave Group Presentation** | University of Melbourne – [Invited Talk](#)
- 2022 **GPPAW** | OzGrav – [Awarded People's Choice Poster Prize](#)
- 2022 **Astrophysics Colloquium** | CSIRO ATNF (Virtual) – [Invited Seminar](#)
- 2022 **Astrophysics Seminar** | Macquarie University (Virtual) – [Invited Seminar](#)
- 2022 **ECR Winter School Lecture and Workshop** | OzGrav – [Resources](#)
- 2022 **Annual Scientific Meeting** | Astronomical Society of Australia – [Conference Talk](#)
- 2022 **Gravitational Wave Group Presentation** | Centre for Astrophysics - Harvard & Smithsonian – [Invited Talk](#)
- 2022 **GRITTS Seminar** | MIT LIGO Laboratory – [Invited Seminar](#)
- 2022 **Gravitational Wave Group Presentation** | Centre for Computational Astrophysics - Flatiron Institute
- 2022 **Strong Gravity Seminar** | Perimeter Institute (Virtual) – [Invited Seminar](#)
- 2021 **Public Webinar** | LIGO/Virgo/KAGRA Collaboration (Virtual) – [YouTube](#)
- 2021 **ACAMAR 7 Workshop** | ACAMAR (Virtual) – [Poster](#) – [Awarded Best Poster Prize](#)
- 2021 **Collaboration Meeting** | LIGO/Virgo/KAGRA (Virtual) – [Poster](#) – [Awarded Best Poster Prize](#)
- 2021 **Orange Pulsar Meeting** | Australasian Pulsar group (Virtual)
- 2021 **Nuclear burning in Massive Stars Workshop** | YITP + OzGrav (Virtual) – [Invited Talk](#)
- 2021 **Edoardo Amaldi Conference on Gravitational Waves** | OzGrav + IUPAP (Virtual) – [Conference Talk](#)
- 2021 **Annual Scientific Meeting** | Astronomical Society of Australia – [Conference Talk](#)
- 2021 **Open Data Workshop #4** | LIGO (Virtual) – [Invited Talk](#)
- 2021 **Gravitational Wave group presentation** | University of Queensland (Virtual) – [Invited Talk](#)
- 2021 **ECR Australia Seminar series** | ASTRO3D (Virtual) - [YouTube](#)
- 2021 **Annual Meeting** | Australian National Institute for Theoretical Astrophysics (Virtual) – [Conference Talk](#)
- 2020 **Public Webinar** | LIGO/Virgo Collaboration (Virtual) – [YouTube](#) – [Invited Speaker](#)
- 2020 **School of Physics and Astronomy colloquium** | Monash University (Virtual)
- 2020 **Annual Scientific Meeting** | Astronomical Society of Australia (Virtual) – [Conference Talk](#)
- 2019 **Annual Scientific Meeting** | Astronomical Society of Australia – [Conference Talk](#)
- 2018 **Annual Scientific Meeting** | Astronomical Society of Australia – [Conference Talk](#)

Media

- 2021 **Record number of new gravitational waves offers game-changing window into universe** | [The Guardian](#)
- 2021 **More gravitational waves detected than ever before** | [Cosmos Magazine](#)
- 2020 **Black hole mergers? 44 confirmed, and counting** | [Cosmos Magazine](#)

Outreach

- 2023 **Panellist at Intl. Women's Day Breakfast** | Mac. Robertson Girls' High School
- 2023 **School Presentation on 'Ripples in Space Time and Life'** | Haileybury College
- 2019 – 23 **Various talks, science demonstrations + articles** | OzGrav – [Outreach Superstar Award 2021 & 2022](#)
- 2022 **Cosmic lighthouses and continuous gravitational waves** | Space Australia – [Article](#)
- 2017 – 22 **Girls in Physics Breakfast STEM Guest** | VicPhysics
- 2021 **Public talk on 'Where stars go to die'** | Astronomical Society of Victoria (Virtual) – [YouTube](#)
- 2021 **Looking into the past with gravitational waves and spinning black holes** | Space Australia – [Article](#)
- 2021 **Gravitational waves and population studies** | Astrophiz – [Podcast](#)
- 2021 **STEM Webinar Guest** | Mac. Robertson Girls' High School (Virtual)
- 2021 **School Presentation** | St Leonard's College (Virtual)
- 2021 **Investigating the lives of double neutron stars** | Space Australia – [Article](#)
- 2020 **Gravitational-wave workshop for students** | OzGrav + Monash Astrophysics

Service

- 2022 – **Referee** | Astrophysical Journal, Physical Review
- 2020 – **IncludeHer representative** | IncludeHer Movement – [Website](#)
- 2022 – 23 **Media Advisory Committee – ECR representative** | OzGrav
- 2019 – 21 **Women in Physics and Astronomy Student Co-chair** | Monash University

Teaching + Mentoring

- 2018 – 22 **Teaching Associate** | Monash University
 - ASP1010 - Earth to cosmos, Introductory astronomy
 - ASP2062 - Introduction to astrophysics
 - ASP3051 - Relativity and cosmology
 - BMS1031 - Medical biophysics
 - PHS1001 - Foundation physics
 - PHS1011 - Classical physics and relativity
 - PHS1022 - Fields and quantum physics
- 2021 **Undergraduate mentorship** | Tushar Nagar – [Honours project](#) (with Prof. Ilya Mandel and Prof. Eric Thrane)
- 2020 **Undergraduate mentorship** | Christian Adamcewicz – [Second year project](#) (with Prof. Eric Thrane)