

SCOTT WILKINSON

PhD Student - University of Victoria - <https://sj-wilkinson.github.io/>

Education

PhD Physics with Concentration in Astronomy University of Victoria, Canada	Expected May 2026
MSc Physics with Concentration in Astronomy University of Victoria, Canada	May 2023
BSc Combined Major Physics and Astronomy (with distinction) University of Victoria, Canada	May 2021

Relevant Work Experience

Teaching Assistant: Astronomy Lab Instructor, University of Victoria	September 2023 – December 2023
Teaching Assistant: Physics Aid Service, University of Victoria	September 2022 – April 2023
Teaching Assistant: Physics Lab Instructor, University of Victoria	September 2022 – December 2022
Junior Research Assistant, National Research Council of Canada	May 2020 – August 2020

Community Engagement

Academic Representative <i>UVic Physics and Astronomy Graduate Student Association</i>	September 2022 – present
Committee Member <i>UVic Associate Dean Academic Search Committee</i>	May 2024 – July 2024
Co-organizer <i>UVic Galactic Astronomy Reading Group</i>	September 2023 – May 2024
Organizing Committee Member <i>UVic Astronomy Summer Seminar Series</i>	April 2023 – September 2023
Seminar Coordinator <i>Students in Physics and Astronomy Communication Enrichment</i>	March 2023 – August 2023
Student Affairs Officer <i>UVic Physics and Astronomy Graduate Student Association</i>	January 2022 – August 2022
Committee Member <i>UVic Physics and Astronomy Department Chair Selection Committee</i>	January 2022 – May 2022
Narrator of Electronically Assisted Astronomy Observation <i>Friends of the Dominion Astrophysical Observatory</i>	April 2021 – August 2021
Astronomy Interpreter <i>UVic Observatory</i>	April 2019 – August 2021

Publications

1. Ellison S. L., Ferreira L., Wild V., **Wilkinson S.**, Rowlands K., Patton D. R. (2024) Galaxy evolution in the post–merger regime II - Post-merger quenching peaks within 500 Myr of Coalescence. (in prep.)
2. Ferreira L., Ellison S. L., **Wilkinson S.**, et al. (2024) Galaxy evolution in the post–merger regime I – Most merger-induced star formation happens post-coalescence. (in prep.)

3. Bickley R. W., **Wilkinson S.**, Ferreira L., Ellison S. L., Jyoti D. (2024) The effect of image quality on galaxy merger searches with deep learning. (in press)
4. Ferreira L., Bickley R. W., Ellison S. L., Patton D. R., Byrne-Mamahit S., **Wilkinson S.**, Bottrell C., Fabbro S., Gwyn S., McConnachie A. (2024) Galaxy Mergers with UNIONS – I: A Simulation-driven Hybrid Deep Learning Ensemble for Pure Galaxy Merger Classification. *MNRAS*, 533, 2547-2569
5. Bickley R. W., Ellison S. L., Salvato M., Salim S., Patton D. R., Merloni A., Byrne-Mamahit S., Ferreira L., **Wilkinson S.** (2024) X-ray AGNs with SRG/eROSITA: Multi-wavelength observations reveal merger triggering and post-coalescence circumnuclear blowout. *MNRAS*, 533, 3068-3089
6. Byrne-Mamahit S., Patton D. R., Ellison S. L., Bickley R. W., Ferreira L., Hani M., Quai S., **Wilkinson S.** (2024) Interacting galaxies in the IllustrisTNG simulations - VII: The connection between the most luminous active galactic nuclei and galaxy interactions. *MNRAS*, 528, 5864-5879
7. **Wilkinson S.**, Ellison S. L., Bottrell C., Bickley R. W., Byrne-Mamahit S., Ferreira L., Patton D. R. (2024) The limitations (and potential) of non-parametric morphology statistics for post-merger identification. *MNRAS*, 528, 5558-5585
8. Bickley R. W., Ellison S. L., Patton D. R., and **Wilkinson S.** (2023) AGN in post-mergers from the Ultraviolet Near Infrared Optical Northern Survey. *MNRAS*, 519, 6149-6161
9. Ellison S. L., **Wilkinson S.**, Woo J., Leung H., Wild V., Bickley R. W., Patton D. R., Quai S., Gwyn S. (2022) Galaxy mergers can rapidly shut down star formation. *MNRAS Letters*, 517, L92-L96
10. **Wilkinson S.**, Ellison S. L., Bottrell C., Bickley R. W., Gwyn S., Cuillandre J.-C., and Wild V. (2022) The merger fraction of post-starburst galaxies in UNIONS. *MNRAS*, 516, 4354-4372
11. Bickley R. W., Bottrell C., Hani M., Ellison S. L., Teimoorinia H., Yi K. M., **Wilkinson S.**, Gwyn S., and Hudson M. J. (2021) Convolutional neural network identification of galaxy post-mergers in UNIONS with IllustrisTNG. *MNRAS*, 504, 372-392

Conference Presentations

Quantifying the contribution of mergers to rapid quenching in the local Universe – Framing the Big Picture of Galaxy Star Formation Quenching with JWST & Euclid – September 2024, Madrid, Spain

The role of mergers in rapid quenching: a comprehensive analysis of post-starburst galaxies and merger identification – The processes shaping the stellar and gaseous histories of galaxies (GASPISA) – May 2024, Pisa, Italy

Quantifying the Completeness of Detected Galaxy Mergers in Large Photometric Surveys – Surveys 2 Discoveries – May 2023, Montreal, Canada

Do Galaxy Mergers Quench Star Formation? – The Epoch of Galaxy Quenching – September 2022, Cambridge, United Kingdom (joint presentation with Sara Ellison)

The Merger Fraction of Post-Starburst Galaxies – CASCA General Assembly – May 2022, Virtual Conference (flash talk presentation)

Looking Deeper into Post-Starburst Galaxies with CFIS – UNIONS CFIS/Pan-STARRS/WISHES Collaboration General Assembly – August 2021, Virtual Conference

Seminar Presentations

The role of mergers in rapid quenching – Astronomy Research Rendezvous – August 2024, Victoria, Canada

The role of mergers in rapid quenching – University of Edinburgh – June 2024, Edinburgh, Scotland

Are post-starburst galaxies caused by mergers? An investigation into the triggering of rapid quenching. – UVic Astronomy Summer Seminar Series – August 2022, Victoria, Canada

The Early Bird Gets the Alpha-Elements: Re-Analyzing the IFU Spectroscopy of Virgo Dwarf Galaxies – National Research Council of Canada Student Seminar – August 2020, Virtual Seminar

Poster Presentations

The Merger Fraction of Post-Starburst Galaxies – CASCA General Assembly – May 2022, Virtual Conference

Merger Fraction of Post-Starburst Galaxies – Jamie Cassels Undergraduate Research Award Poster Session – March 2020, University of Victoria

Outreach Presentations

From Big to Biggest: The Brief Introduction to All Things Astronomy – Delta Secondary School, January 2023

From Big to Biggest: The Fields of Active Research in Astronomy – Delta Secondary School, June 2022

The Swiss Army Science – UVic Observatory, August 2020

Galaxy Morphology and Evolution. – UVic Observatory, June 2020

Press Coverage and Media Exposure

[*Playing hide-and-seek with colliding dying galaxies.*](#) Astrobites, July 2022 (article)

[*When two galaxies collide they often stop making stars.*](#) NewScientist, September 2022 (article and interview)

Accepted Observing Proposals (PI)

Mapping molecular gas in a statistical sample of post-starburst galaxies (2024.1.00181.S) – ALMA, 21.3h, Grade C

Accepted Observing Proposals (Co-I)

A complete and systematic survey of gas in post-starburst galaxies II (081-24) – IRAM, 59.8h, Grade B

A complete and systematic survey of gas in post-starburst galaxies (077-24) – IRAM, 73.8h, Grade A

The evolution of the atomic gas fraction in post-merger galaxies (SQB-2024-0001) – FAST, 10.0h, Grade A

A systematic survey of atomic gas in post-starburst galaxies (SQB-2023-0065) – FAST, 14.8h, Grade A

Resolved gas properties of merger-triggered AGN (2022.1.00607.S) – ALMA, 13.8h, Grade C

Academic Awards and Funding

❖ ESA Visitor Funding – \$1,710	September 2024
❖ Michael Smith Foreign Study Supplement – \$6,000	September 2024
❖ President's Research Scholarship – \$5,000	May 2024
❖ NSERC CGS-D – \$105,000	May 2023 – 2026
❖ President's Research Scholarship – \$5,000	May 2023
❖ John and Myrtle Tilley Graduate Scholarship – \$5,200	December 2022
❖ David F. Strong Research Scholarship – \$1,461	December 2022
❖ NSERC CGS-M – \$17,500	May 2022 – 2023
❖ President's Research Scholarship – \$5,000	May 2022
❖ Graduate Entrance Award – \$5,000	September 2022
❖ B. W. Pearse Science Scholarship – \$282	July 2021

❖ Robert S. Evans Memorial Scholarship in Astronomy – \$736	July 2021
❖ Jamie Cassels Undergraduate Research Award – \$1,500	September 2019
❖ UVic Faculty of Science Dean’s List	July 2018 – 2021
❖ UVic Excellence Scholarship – \$20,000 (Fully renewed for four years)	September 2017 – 2020
❖ UBC Centennial Scholarship – \$10,000 (Declined)	September 2017
❖ SFU Major Entrance Scholarship – \$24,000 (Declined)	September 2017
❖ BC Achievement Scholarship – \$1,250	August 2017
❖ Delta Agriculture Award – \$1,000	June 2017
❖ Tom Fuchko Memorial Scholarship – \$700	June 2017
❖ Delta Grad Scholarship – \$750	June 2017