

Ronan Kerr | Curriculum Vitae

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Education

University of Texas at Austin

Ph.D. Astronomy August 2024
M.A. Astronomy December 2021

University of British Columbia

B.Sc. Combined Honours in Physics and Astronomy May 2019

Awards

Michael H. Granof Outstanding Dissertation Award

UT Austin, awarded with \$10,000 prize for best thesis across all STEM fields 2025

David Alan Benfield Memorial Fellowship in Astronomy

UT Austin Astronomy, awarded for outstanding research by a senior grad student 2023

University Graduate Continuing Fellowship

UT Austin Department of Astronomy 2022

Frank N. Edmonds, Jr. Memorial Fellowship

UT Austin Department of Astronomy, awarded for strong promise in research 2021

Paul Sykes Scholarship in Astronomy

UBC Department of Physics and Astronomy 2019

Publications (h-index=12)

First (9), Second (3), and Third (3) Author Publications.....

15. Rector, T. ; Prato, L.; **Kerr, R.**, et al. including **Abhilash, S.**, "The Star-Formation History and Outflow Content of the Serpens-Aquila Rift", to submit to AJ Feb 2026
14. **Kerr, Ronan** ; Kraus, Adam L.; Tan, Jonathan C., et al., 2026, "SPYGLASS. VII-B. Tracing the Fragments of Massive Star Formation Using Low-Mass Associations", submitted to ApJ
13. **Kerr, Ronan** ; Pérez Paolino, Facundo ; Tan, Jonathan C., et al., 2025, "SPYGLASS. VII-A. The Demographics and Ages of Small Nearby Young Associations", ApJ, 995, 217
12. Farias, Juan P. ; Offner, Stella S. R. ; **Kerr, R.**, et al., 2025, "Stellar populations in STARFORGE II: comparison with observations", MNRAS, 541, 101
11. Rector, T. A. ; Prato, L. ; **Kerr, R.**, et al., 2025, "The Herbig-Haro Outflow Content and Star-forming Environment of Circinus West and East", AJ, 169, 313
10. **Kerr, Ronan** ; Farias, Juan P. ; Prato, Lisa, et al., 2025, "SPYGLASS. VI. Feedback-

driven Star Formation in the Circinus Complex", ApJ, 985, 111

9. **Kerr, Ronan** ; Kraus, Adam L. ; Krolikowski, Daniel, et al., 2024, "SPYGLASS. V. Spatially and Temporally Structured Star-Forming Environments in the Cepheus-Hercules Complex", ApJ, 975, 99
8. **Kerr, Ronan** ; Kraus, Adam L. ; Rizzuto, Aaron C., et al., 2023, "SPYGLASS. IV. New Stellar Survey of Recent Star Formation within 1 kpc", ApJ, 954, 134
7. **Kerr, Ronan** ; Kraus, Adam L. ; Murphy, Simon J., et al., 2022, "SPYGLASS. III. The Fornax-Horologium Association and its Traceback History within the Austral Complex", ApJ, 941, 143
6. **Kerr, Ronan** ; Kraus, Adam L. ; Murphy, Simon J., et al., 2022, "SPYGLASS. II. The Multigenerational and Multiorigin Star Formation History of Cepheus Far North", ApJ, 917, 23
5. Bouma, L. G. ; **Kerr, R.** ; Curtis, J. L., et al., 2022, "Kepler and the Behemoth: Three Mini-Neptunes in a 40 Million Year Old Association", AJ, 164, 215
4. **Kerr, Ronan M. P.** ; Rizzuto, Aaron C. ; Kraus, Adam L. ; Offner, Stella S. R., 2021 "Stars with Photometrically Young Gaia Luminosities Around the Solar System (SPYGLASS). I. Mapping Young Stellar Structures and Their Star Formation Histories", ApJ, 917, 23
3. Richer, Harvey B. ; **Kerr, Ronan** ; Heyl, Jeremy ; Caiazzo, Ilaria ; Cummings, Jeffrey ; Bergeron, Pierre ; Dufour, Patrick, 2019, "A Massive Magnetic Helium Atmosphere White Dwarf Binary in a Young Star Cluster" ApJ, 880, 75.
2. **Kerr, Ronan** ; Kirk, Helen ; Di Francesco, James et al., 2019, "The Green Bank Ammonia Survey: A Virial Analysis of Gould Belt Clouds in Data Release 1", ApJ, 874, 147.
1. Wilson, P. A. ; **Kerr, R.** ; Lecavelier des Etangs, A. ; Bourrier, V. ; Vidal-Madjar, A. ; Kiefer, F. ; Snellen, I. A. G., 2019, "Detection of Nitrogen Gas in the β Pictoris circumstellar disk", A&A, 621, A121.

Co-Authored Publications

10. Dattilo, Anne ; Vanderburg, Andrew M. et al. including **Kerr, Ronan**, 2025, "THYME. XIII. Two Young Neptunes Orbiting a 75 Myr Star in the Alpha Persei Cluster", AJ, 170, 318.
9. Pattle, Kate ; Di Francesco, James et al. including **Kerr, Ronan**, 2025, "The JCMT Gould Belt Survey Complete Core Catalogue: core mass function variations between nearby molecular clouds", MNRAS, 543, 3547.
8. Liu, Pengyu ; Biller, Beth A. et al. including **Kerr, Ronan**, 2025, "A benchmark companion at the hydrogen-burning limit imaged in the core cluster of the Fornax-Horologium association", A&A, 696, 10.
7. Distler, Adam ; Soares-Furtado, Melinda et al. including **Kerr, Ronan**, 2025, "TESS Hunt for Young and Maturing Exoplanets (THYME). XII. A Young Mini-Neptune on the Upper Edge of the Radius Valley in the Hyades Cluster", AJ, 169, 166.
6. Murphy, Simon J. ; Bedding, Timothy R. et al. including **Kerr, Ronan**, 2024, "The δ Scuti stars of the Cep-Her Complex. I: Pulsator fraction, rotation, asteroseismic large spacings, and the ν_{max} relation", MNRAS, 534, 3022.
5. Heitzmann, A. ; Zhou, G. et al. including **Kerr, Ronan**, 2023, "TOI-4562 b: A highly

eccentric temperate Jupiter analog orbiting a young field star", AJ, 165, 121.

4. Newton, E. R. ; Rampalli, R. et al. including **Kerr, Ronan**, 2022, "TESS Hunt for Young and Maturing Exoplanets (THYME). VII. Membership, Rotation, and Lithium in the Young Cluster Group-X and a New Young Exoplanet", AJ, 164, 115.
3. Mann, Andrew W. ; Wood, Mackenna L. et al. including **Kerr, Ronan**, 2022, "TESS Hunt for Young and Maturing Exoplanets (THYME) VI: an 11 Myr giant planet transiting a very low-mass star in Lower Centaurus Crux ", AJ, 163, 156.
2. Richer, Harvey B. ; Caiazzo, Ilaria ; Du, Helen ; Grondin, Steffani ; Hegarty, James ; Heyl, Jeremy ; **Kerr, Ronan** ; Miller, David R. ; Thiele, Sarah, 2021, "Massive White Dwarfs in Young Star Clusters", ApJ, 921, 165.
1. Caiazzo, Ilaria ; Heyl, Jeremy ; Richer, Harvey ; Cummings, Jeffrey ; Fleury, Leesa ; Hegarty, James ; Kalirai, Jason ; **Kerr, Ronan** et al. 2020, "Intermediate-mass Stars Become Magnetic White Dwarfs", ApJL, 901, L14.

Observing Proposals

Atacama Pathfinder Experiment (APEX) - 24 hours	2025-26
"Testing Mechanisms for Sequential Star Formation in Circinus" – accepted for full time request, ESO-ID: m-0116.f-9525c-2025 (PI J. Pineda, led by R. Kerr)	
Gemini Observatory - 27.7 hours	2025
"New Lithium Depletion Boundary Ages for Small Benchmark Young Associations" – accepted for full time request, proposal IDs: GN-2025B-Q-138, GS-2025B-Q-137	
McDonald 2.7m (Harlan J. Smith Telescope) - >60 nights	2020-2024
"Characterizing Newly-Discovered Young Associations in the Solar Neighborhood" (and related proposals) – all accepted for full time request across semesters 20-3, 21-1, 21-3, 22-1, 22-3, 23-1, 23-2, 23-2, and 24-3	
Las Cumbres Observatory - 112 hours	2020-2022
"Characterizing Newly-Discovered Young Associations in the Solar Neighborhood" – three accepted proposals, proposal IDs: UTX2020B-001, UTX2021B-002, UTX2022A-002	
NSF OIR Lab AAT - 2 nights	2021
"Exploring the Star Formation History and Dynamics of the Sco-Cen Association" – one proposal, accepted proposal ID: 2021A-0265	
Gemini Observatory Fast Turnaround - 12 hours	2018-19
"Spectroscopy of Massive White Dwarf Stars in Young Open Clusters" (and related proposals) – four proposals accepted for full time requested, IDs: GS-2019B-FT-203, GN-2019A-FT-214, GS-2019A-FT-115, GS-2018B-FT-108	

Presentations and Conference Proceedings

34. Invited Talk – McMaster Astrophysics Journal Club, Hamilton, Ontario, November 6, 2025
33. Talk – Bridging Scales: Star Clusters and their Host Galaxies from the Local to the High-Z Universe, Matera, Italy, September 1, 2025
32. Invited Talk – UdeM IREx Café, Montréal, Québec, July 21, 2025

31. Talk – 2025 European Astronomical Society Meeting, Cork, Ireland, June 23, 2025
30. Poster Presentation – STScI Spring Symposium: Inter+Stellar, Baltimore, Maryland, May 12-16, 2025
29. Talk – UofT TASTY Talk Series, Toronto, Ontario, November 24, 2024
28. Talk – 2024 European Astronomical Society Meeting, Padova, Italy, July 4, 2024
27. Talk – Cool Stars 22, San Diego, California, June 25, 2024
26. Talk – Canadian Astronomical Society (CASCA) 2024 Meeting, Toronto, Ontario, Canada; June 4, 2024
25. Invited Talk – Instituto de Radioastronomía y Astrofísica, Morelia, Michoacán, Mexico; February 29, 2024
24. Dissertation Talk – 243rd Meeting of the AAS, New Orleans, LA, USA; January 10, 2024
23. Talk – Massachusetts Institute of Technology Monday Afternoon Talks, Cambridge, MA, USA; November 27, 2023
22. Talk – California Institute of Technology Tea Talk, Pasadena, CA, USA; October 30, 2023
21. Talk – Surveying the Milky Way: the Universe in Our Own Backward, Pasadena, CA, USA; October 23, 2023
20. Talk – SPF Seminar at the University of Michigan, Ann Arbor, MI, USA, October 3, 2023
19. Talk – Stars, Planets & ISM Seminar at UT Austin, Austin, TX, USA, September 27, 2023
18. Lightning Talk and Poster – Texas Area Planetary Science Meeting, San Antonio, TX, USA; August 17, 2023
17. Poster – Protostars and Planets VII, Kyoto, Japan; April 10-15, 2023
16. Poster – 241st Meeting of the AAS, Seattle, WA, USA, January 12, 2023
15. Talk – Stars, Planets, & ISM Seminar at UT Austin, Austin, TX, USA, November 16, 2022
14. Plenary Talk and Poster – Cool Stars 21, Toulouse, France, July 8, 2022
13. Talk and Poster – 2022 European Astronomical Society Meeting, Valencia, Spain, June 29, 2022
12. Invited Talk – Istanbul University Observatory Astrophysics Talks, virtual, April 28, 2022
11. Talk – Cosmos Seminar at UT Austin, Austin, TX, USA, March 31, 2022
10. Poster and Short Talk – Star Clusters: the Gaia Revolution, virtual, October 5, 2021
9. 2nd Year Defense Talk – Stars, Planets, and ISM Seminar at UT Austin, Austin, TX, USA, April 28, 2021
8. Poster and Pre-recorded Talk – Cool Stars 20.5, virtual, March 2-4, 2021
7. Poster and Pre-recorded Talk – 237th Meeting of the AAS, virtual, January 11-15, 2021
6. Talk – THYME 2020 conference, virtual, December 8, 2020
5. Talk – Stars, Planets, and ISM Seminar at UT Austin, virtual, April 1, 2020
4. Talk – UBC Honours Thesis Presentation, Vancouver, BC, Canada, March 27, 2019
3. Talk – Leiden/ESA LEAPS Program Presentations, Leiden, Netherlands, August 9, 2018
2. Talk – CITA/UofT SURP Presentations, Toronto, ON, Canada, August 25, 2017
1. Talk – NRC Science Tea, Victoria, BC, Canada, April 27, 2017

Professional Service

- o Canadian Representative to the Gemini Observatory Users' Committee, 2025-present

- Member of NOIRLab Time Allocation Committee, 2025-present
- Summer Undergraduate Research Program (SURP) 2025 advisor to Mayesha Rahaman and Sharone Abhilash
- University of Toronto AST 425 honors thesis supervisor for Rohan Ashar and Camille Paule
- AST 430 research supervisor for Isabella Rivera, Mayesha Rahaman, and Sharone Abhilash
- Reviewer, *Nature Astronomy*, *Astrophysical Journal*, and *Astronomy & Astrophysics*
- Mentor to Undergraduate Researcher, TAURUS program 2021 at UT Austin

Other Experience

UBC Department of Physics and Astronomy

Research Assistant

2016, 2018-19

Universiteit Leiden

Research Assistant

2018

Canadian Institute for Theoretical Astrophysics

Research Assistant

2017

NRC - Herzberg Astronomy and Astrophysics Research Centre

Research Assistant

2017

Vancouver Telescope Centre

Sales Associate and Telescope Instructor

2010-2016

Outreach and Volunteer Work

- Volunteer and Telescope Operator, University of Toronto AstroTours, 2024-present
- Volunteer and Instructor, Wandering Spirits Coding Club, 2025
- Master Outreach Award, presented by the Astronomical League for 160+ hours of service to astronomy outreach, 2021
- Telescope operator, UT Austin PMA Star Parties, 2019-present
- Astronomy Representative, UT Austin Graduate Student Assembly, 2022-23
- Outreach Volunteer, Austin Astronomical Society/Texas Parks and Wildlife, 2021-2023
- Astronomy Representative, UBC Science Undergraduate Society
- President, UBC Astronomy Club, 2015-17
- Vice President of Observations, UBC Astronomy Club, 2015, 2017-18

Outreach Talks

- Public Talk – University of Toronto AstroTours, Toronto, Ontario, August 7, 2025
- Public Talk – Zooniverse, virtual, July 16, 2025
- Interview – AAS Speaker Series, virtual, July 14, 2025
- Public Talk – Austin Astronomical Society General Assembly, virtual, February 12, 2021
- Public Talk – UBC Astronomy Grad School 101, Vancouver, BC, Canada, March 21, 2018