Curriculum Vitae

Ryan Edward Cloutier

Business Address

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Educational Background

Hon. B.Sc., Physics & Astronomy, University of Toronto, 2014
Ph.D., Astronomy & Astrophysics, University of Toronto, 2019

Current Status at McMaster

Assistant Professor, Department of Physics & Astronomy
Canada Research Chair in Exoplanetary Astronomy (Tier 2)

Employment History

2022-:	Assistant Professor, Department of Physics & Astronomy, McMaster University Hamilton, ON
2021-22:	Banting Fellow, Center for Astrophysics | Harvard & Smithsonian, Cambridge, MA, USA
2019-21:	Postdoctoral Fellow, Center for Astrophysics | Harvard & Smithsonian, Cambridge, MA, USA

Honours & Awards

- Canada Research Chair in Exoplanetary Astronomy (Tier 2), 2025-30
  - Federal appointments for exceptional emerging researchers, acknowledged by their peers as having the potential to lead in their field.
- John C. Polanyi Prize in Physics, 2023
  - Awarded by the Government of Ontario to outstanding reseachers in the early stages of their careers in the categories of the Noble Prize.

- Allen Yen Award, 2018
  - Awarded to a graduate student in the University of Toronto's Department of Astronomy & Astrophysics who has undertaken "particularly notable research".
- Lachlan Gilchrist Fellowship, 2015-19
  - Awarded to a graduate student in a Physical Sciences program at the University of Toronto on the basis of academic merit.
- Mary H. Beatty Scholarship, 2014-15
  - Entrance scholarship for graduate students at the University of Toronto.

Research Impact

(*as of September 14, 2026*)

- Number of co-authored, peer-reviewed articles (published + in press): 117
- Number of citations: 4,130
- h-index: 41

Top fields of research (Source: Dimensions Analytics)

Name	Publications	Publications with FCR	FCR (geo mean)
51 Physical Sciences	202	144	2.57
5109 Space Sciences	175	124	2.59
5101 Astronomical Sciences	108	79	2.68

Figure 1: Field Citation Ratio (FCR) expresses the citation-based impact of the publication set relative to publications from the same research area and year. FCR=1 implies that publications are cited as often as expected based on publication year and research area. FCR=2 implies that publications are cited twice as often as expected based on publication year and research area. **Note:** References to datasets are counted here as "Publications with FCR", which are rarely cited in publications. The FCR values from peer-reviewed publications only are therefore higher than the FCR values reported here. (*Date: July 29, 2026*)

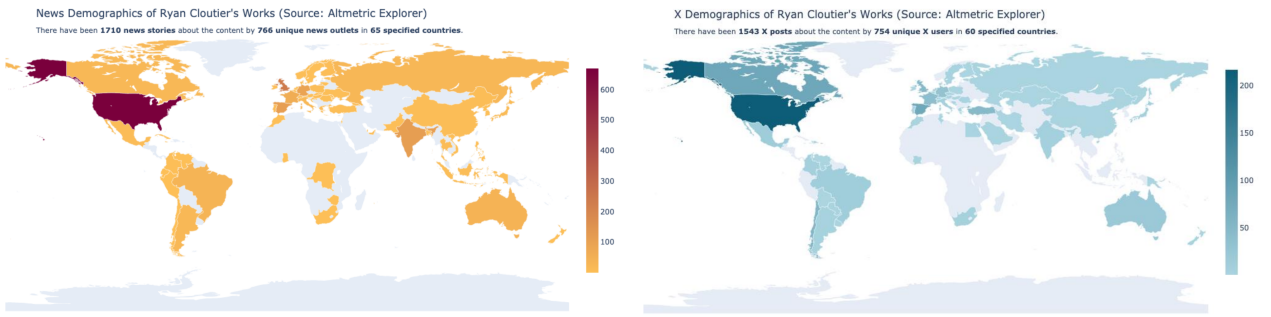

Figure 2: Broader research impacts as depicted by mentions in online news stories (*top*) and X social media posts (*bottom*) across the globe. (*Date: July 29, 2026*)

Areas of Interest & Research Topic Network

- Exoplanetary Astronomy
- Exoplanet Detection Methods
- Exoplanet Demographics
- Planet Formation
- Planetary Interiors
- Planetary Atmospheres
- Observational Astronomy
- Stellar Astrophysics
- Low Mass Stars
- Stellar Chemical Abundances
- Stellar Magnetic Activity
- Stellar Winds

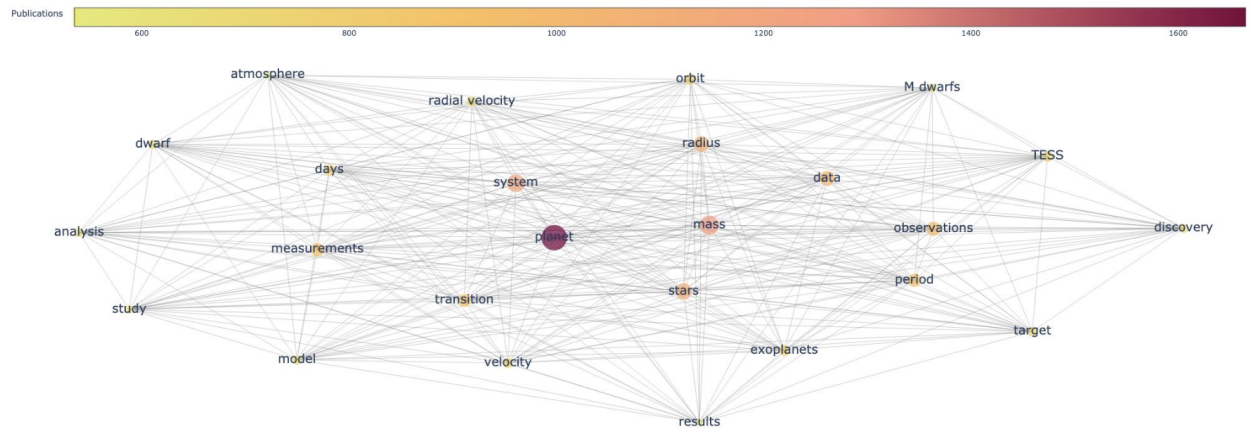

Figure 3: Research topic network drawn from mentions in peer-reviewed publications. (*Date: July 29, 2026*)

Lifetime Publications

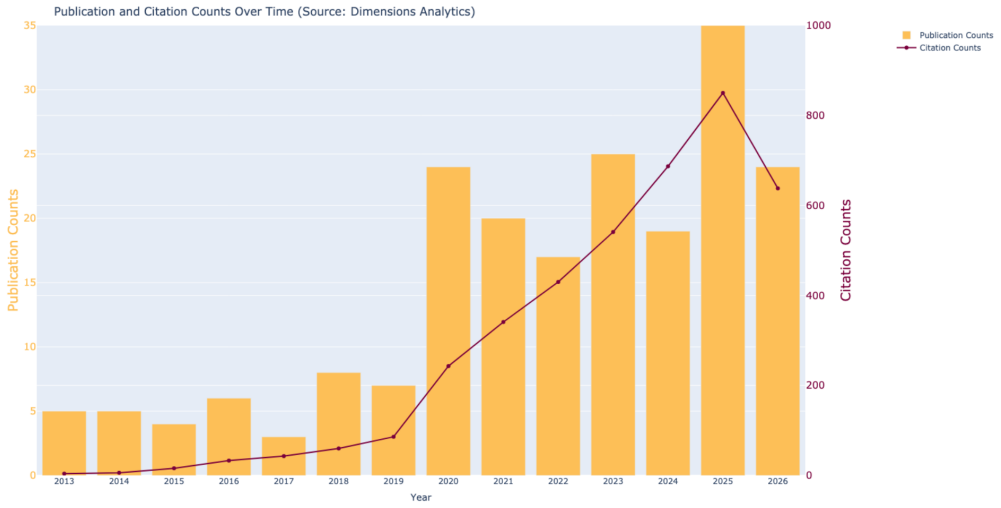

Figure 4: Per annum publications and citations since **R. Cloutier** entered the field in 2013. (*Date: July 29, 2026*)

Students and postdoctoral fellows that I have directly supervised are underlined. The first author of each paper is the corresponding author.

- Book Chapters

  1. **Cloutier, R.** "Exoplanet Demographics: Physical & Orbital Properties", Chapter 1 of *Encyclopedia of Astrophysics, Volume 1*, Elsevier Publishing, 2026.

- Peer-Reviewed Journal Articles

  1. Skinner, B.N., Pudritz, R.E., & **Cloutier, R.** (2026) "A validated low-to-intermediate mass planetary interior structure model and new mass-radius relations," *Monthly Notices of the Royal Astronomical Society*, 550, 3.
  2. Turtelboom, E.V., Giacalone, S., Gore, R., Dressing, C.D., **Cloutier, R.**, et al., "Uniform Metallicity Measurements of M Dwarf Planet Hosts Support Metallicity-Dependent Sub-Neptune Formation" *The Astronomical Journal*, 172, 121.
  3. Thompson, W., Blakely, D., Xuan, J.W., Blouin, S., Zhang, J., et al. (2026), "Detecting and Characterizing Companions with a Calibrated Gaia DR2, DR3, and Hipparcos Catalog (G23H)," *The Astronomical Journal*, 172, 53.
  4. Pelletier, S., Allart, R., Vaulato, V., Ehrenreich, D., Cristo, E., et al. (2026), "The breaking of cold traps and onset of titanium in ultra-hot Jupiter atmospheres: WASP-189b in context," *Astronomy & Astrophysics*, 711, 119.

5. Gillis, E.D., **Cloutier, R.**, & Pass, E.K. (2026), "TESS Planet Occurrence Rates Reveal the Disappearance of the Radius Valley around Mid-to-late M Dwarfs," *The Astronomical Journal*, 171, 317.
6. Weisserman, D., Gromek, N., **Cloutier, R.**, Bali, K., Cadieux, C., et al. (2026), "Super-Earth masses and stellar abundances from NIRPS reveal tentative evidence for water-rich formation around M dwarfs," *Astronomy & Astrophysics*, 709, 165.
7. Srivastava, A., Doyon, R., Bouchy, F., Artigau, E., Cadieux, C., et al. (2026), "TOI-4552 b: A new ultra-short-period rocky world revealed by NIRPS and TESS," *Astronomy & Astrophysics*, 709, 73.
8. Osborn, A., **Cloutier, R.**, Bourrier, V., Skinner, B., Gromek, N., et al. (2026), "Confirmation of the hot super-Neptune TOI-672 b with NIRPS and HARPS: Insights into the Neptunian desert around M dwarfs," *Astronomy & Astrophysics*, 709, 23
9. Parc, L., Cadieux, C., Grieves, N., Bouchy, F., L'Heureux, A., et al. (2026), "Densities of small planets around the M dwarfs TOI-4336 A and TOI-4342 with ESPRESSO: Three sub-Neptunes, one super-Earth, and a Neptune-mass candidate," *Astronomy & Astrophysics*, 708, 81
10. Frensch, Y., Bouchy, F., Lo Curto, G., L'Heureux, A., de Lima Gomes, R., et al. (2026), "TOI-3288 b and TOI-4666 b: two gas giants transiting low-mass stars characterised by NIRPS", *Astronomy & Astrophysics*, 707, 73.
11. Rochon, A., Artigau, E., Weisserman, D., Dang, L., Doyon, R., et al. (2026), "Reanalysis of the Eclipses of LHS 1140 c: No Evidence of an Atmosphere and Implications for the Internal Structure of the Planet," *The Astrophysical Journal Letters*, 998, L39.
12. Lamontagne, P., Weisserman, D., Cadieux, C., Lafrenière, D., L'Heureux, A., et al. (2026) "NIRPS tightens the mass estimate of GJ 3090 b and detects a planet near the stellar rotation period", *Astronomy & Astrophysics*, 706, 278.
13. Wilson, T.G., Simpson, A.M., Collier Cameron, A., **Cloutier, R.**, Adibekyan, V., et al. (2026), "Gas-depleted planet formation occurred in the four-planet system around the red dwarf LHS 1903," *Science*, 392, 6795.
14. Turner, D., Eschen, Y., Murgas, F., Mortier, A., Wilson, T., et al. (2026) "The mass of the exo-Venus Gliese 12 b, as revealed by HARPS-N, ESPRESSO, and CARMENES", *Monthly Notices of the Royal Astronomical Society*, 1703, 1608.
15. Ould-Elhkim, M., Moutou, C., Donati, J., Delfosse, X., Artigau, E., et al. (2026), "The SPIRou Legacy Survey: Detection of a nearby world orbiting in the habitable zone of Gl 725B achieved by correcting strong telluric contamination in near-infrared radial velocities with wapiti," *Astronomy & Astrophysics*, 705, 234.
16. Weisserman, D., Gillis, E., **Cloutier, R.**, Brown, N., Bean, J., et al. (2025) "Aligned Stellar Obliquities for Two Hot Jupiter-hosting M Dwarfs Revealed by MAROON-X: Implications for Hot Jupiter Formation", *The Astronomical Journal*, 170, 313.

17. Côté, P., Woods, T., Hutchings, J., Rhodes, J., Sànchez-Janssen, R., et al. (2025) "The CASTOR Mission", JATIS, in press.
18. Vaulato, V., Hobson, M., Allart, R., Pelletier, S., Wardenier, J., Chakraborty, H., et al. (2025) "Atmospheric composition and circulation of the ultra-hot Jupiter WASP-121b with joint NIRPS, HARPS and CRIRES+ transit spectroscopy", *Astronomy & Astrophysics*, 703, 251.
19. Coulombe, L.P., Benneke, B., Krissansen-Totton, J., L'Heureux, A., Piaulet-Ghorayeb, C., et al. (2025) "Possible Evidence for the Presence of Volatiles on the Warm Super-Earth TOI-270 b", *The Astronomical Journal*, 170, 226.
20. Parc, L., Bouchy, F., Cook, N., Grieves, N., Artigau, É., et al. (2025) "NIRPS and TESS reveal a peculiar system around the M dwarf TOI-756: A transiting sub-Neptune and a cold eccentric giant", *Astronomy & Astrophysics*, 702, 138.
21. Yee, S., Winn, J., Hartman, J., Rodriguez, J., Zhou, G., et al. (2025) "The TESS Grand Unified Hot Jupiter Survey. III. Thirty More Giant Planets", *The Astrophysical Journal Supplement Series*, 280, 30.
22. Cadieux, C., L'Heureux, A., Piaulet-Ghorayeb, P., Doyon, R., Artigau, É., et al. (2025) "Detailed Architecture of the L 98-59 System and Confirmation of a Fifth Planet in the Habitable Zone", *The Astronomical Journal*, 170, 154.
23. Bazinet, L., Allart, R., Benneke, B., Pelletier, S., Wardenier, J., et al. (2025) "Quantifying thermal water dissociation in the dayside photosphere of WASP-121 b using NIRPS", *Astronomy & Astrophysics*, 701, 276.
24. Hesse, K., Mireles, I., Bouchy, F., Dragomir, D., Ulmer-Moll, S., et al. (2025) "HD 35843: A Sun-like Star Hosting a Long-period Sub-Neptune and Inner Super-Earth", *The Astronomical Journal*, 170, 108.
25. Carmona, A., Delfosse, X., Ould-Elhkim, M., Cortes-Zuleta, P., Hara, N., et al. (2025) "Characterizing planetary systems with SPIRou: Detection of mini-Neptune in a 6 day period orbit around the M dwarf Gl 410", *Astronomy & Astronphysics*, 700, 222.
26. Gomes da Silva, J., Delgado-Mena, E., Santos, N., Monteiro, T., Laure, P., et al. (2025) "Blind search for activity-sensitive lines in the near-infrared using HARPS and NIRPS observations of Proxima and Gl 581", *Astronomy & Astronphysics*, 700, 177.
27. Suarez-Mascereno, A., Artigau, É, Mignon, L., Delfosse, X., Cook, N., et al. (2025) "Diving into the planetary system of Proxima with NIRPS: Breaking the meter per second barrier in the infrared", *Astronomy & Astrophysics*, 700, 11.
28. Bouchy, F., Doyon, R., Pepe, F., Melo, C., Artigau, É., et al. (2025) "NIRPS joining HARPS at ESO 3.6 m: On-sky performance and science objectives", *Astronomy & Astrophysics*, 700, 10.
29. Vaulato, V., Pelletier, S., Ehrenreich, D., Allart, R., Cristo, E., et al. (2025) "Hydride ion continuum hides absorption signatures in the NIRPS near-infrared

transmission spectrum of the ultra-hot gas giant WASP-189b", *Astronomy & Astrophysics*, 700, 9.

30. Allart, R., Carteret, Y., Bourrier, V.,Mignon, L., Baron, F., et al. (2025) "NIRPS detection of delayed atmospheric escape from the warm and misaligned Saturn-mass exoplanet WASP-69 b", *Astronomy & Astrophysics*, 700, 7.
31. Ahrer, E., Radica, M., Piaulet-Ghorayeb, C., Raul, E., Wiser, L., et al. (2025) "Escaping Helium, Depleted Methane, and Hints of Carbon Dioxide Suggest a High-Metallicity Atmosphere on Sub-Neptune GJ 3090 b from JWST Transit Spectroscopy", *The Astronomical Journal*, 985, 10.
32. Wilson, T.G., Simpson, A., Collier-Cameron, A., **Cloutier, R.**, Adibekyan, V., et al. (2025) "The thick disk M-dwarf LHS 1903 contains a non-gaseous planet above the radius valley and three interior bodies", *Science*, in press.
33. Ould-Elhkim, M., Moutou, C., Donati, J.F., Artigau, É, Cadieux, C., et al. (2025) "Near-infrared and optical radial velocity analysis of Gl 480 and Gl 382 using the SPIRou, HARPS and CARMENES spectrographs", *Astronomy & Astrophysics*, 696, 152.
34. Jahandar, F., Doyon, R., Artigau, E., Cook, N.J., Cadieux, C., et al. (2025) "Chemical Fingerprints of M Dwarfs: High-Resolution Spectroscopy on 31 M Dwarfs with SPIRou", *The Astrophysical Journal*, 978, 154.
35. Greklek-McKeon, M., Vissapragada, S., Knutson, H., Fukui, A., Saidel, M., et al. (2024) "Tidally Heated Sub-Neptunes, Refined Planetary Compositions, and Confirmation of a Third Planet in the TOI-1266 System", *The Astronomical Journal*, 169, 292.
36. Piaulet-Ghorayeb, C., Benneke, B., Radica, M., Raul, P., Coulombe, L.P., et al. (2024) "JWST/NIRISS Reveals the Water-rich Steam World Atmosphere of GJ 9827 d",", *The Astrophysical Journal Letters*, 974, 1.
37. VanWyngarden, W. & **Cloutier, R.** (2024) "Modeling Multiple Radius Valley Emergence Mechanisms With Multi-Transiting Systems", *The Astronomical Journal*, 168, 154.
38. de Wit, J., Doyon, R., Rackham, B., Lim, O., Ducrot, E., et al. (2024) "A roadmap for the atmospheric characterization of terrestrial exoplanets with JWST", *Nature Astronomy*, 8, 810.
39. Cadieux, C., Doyon, R., MacDonald, R., Turbet, M., Artigau, É., et al. (2024) "Transmission Spectroscopy of the Habitable Zone Exoplanet LHS 1140 b with JWST/NIRISS", *The Astrophysical Journal Letters*. 907, 2.
40. Dholakia, S., Palethorpe, L. Venner, A., Mortier, A., Wilson, T., et al. (2024) "Gliese 12 b, a temperate Earth-sized planet at 12 parsecs discovered with TESS and CHEOPS". *Monthly Notices of the Royal Astronomical Society*, 531, 1276-1293.
41. **Cloutier, R.**, Greklek-McKeon, M., Wurmser, S., Cherubim, C., Gillis, E., Vanderburg, A., et al. (2024). "Masses, revised radii, and a third planet candidate in

the 'Inverted' planetary system around TOI-1266". *Monthly Notices of the Royal Astronomical Society*, 527, 5464-5483.

42. Almenara, J.M., Bonfils, X., Bryant, E.M., Jordán, A., Hébrard, G, et al. "TOI-4860 b, a short-period giant planet transiting an M3.5 dwarf", *Astronomy & Astrophysics*, 683, 166.
43. Cheng, I., Woods, T., Côté, P., Glover, J., Bansal, D., et al. (2024) "FORECASTOR. I. Finding Optics Requirements and Exposure Times for the Cosmological Advanced Survey Telescope for Optical and UV Research Mission", *The Astronomical Journal*, 167, 178.
44. Hord, B., Kempton, E., Evans-Soma, T., Latham, D., Ciardi, D., et al. (2024) "Identification of the Top TESS Objects of Interest for Atmospheric Characterization of Transiting Exoplanets with JWST" , *The Astronomical Journal*, 167, 233.
45. Jahandar, F., Doyon, R., Artigau, É., Cook, N., Cadieux, C., et al. (2024) "Comprehensive High-resolution Chemical Spectroscopy of Barnard's Star with SPIRou". *The Astrophysical Journal*, 966, 56.
46. Silverstein, M., Barclay, T., Schlieder, J., Collins, K., Schwarz, R., et al. (2024). "Validation of a Third Planet in the LHS 1678 System". *The Astronomical Journal*, 167, 255.
47. Cadieux, C., Plotnykov, M., Doyon, R., Valencia, D., Jahandar, F., Dang, L., et al. (2024). "New Mass and Radius Constraints on the LHS 1140 Planets: LHS 1140 b Is either a Temperate Mini-Neptune or a Water World". *The Astrophysical Journal Letters*, 960, 3.
48. Quintana, E. V., Gilbert, E. A., Barclay, T., Silverstein, M. L., Schlieder, J. E.,**Cloutier, R.**, et al. (2023). "Two Warm Super-Earths Transiting the Nearby M Dwarf TOI-2095". *The Astronomical Journal*, 166, 195.
49. Pass, E. K., Winters, J. G., Charbonneau, D., Balkanski, A., Lewis, N., Lally, M., Bean, J., **Cloutier, R.**, Eastman, J. D. (2023). "HST/WFC3 Light Curve Supports a Terrestrial Composition for the Closest Exoplanet to Transit an M Dwarf". *The Astronomical Journal*, 166, 171.
50. Allart, R., Lemée-Joliecoeur, P. -B., Jaziri, A. Y., Lafrenière, D., Artigau, E., Cook, N., et al. (2023). "Homogeneous search for helium in the atmosphere of 11 gas giant exoplanets with SPIRou". *Astronomy & Astrophysics*, 677, 164.
51. Donati, J. -F., Lehmann, L. T., Cristofari, P. I., Fouqué, P., Moutou, C., Charpentier, P., et al. (2023). "Magnetic fields and rotation periods of M dwarfs from SPIRou spectra". *Monthly Notices of the Royal Astronomical Society*, 525, 2015-2039.
52. Bellotti, S., Morin, J., Lehmann, L. T., Folsom, C. P., Hussain, G. A. J., Petit, P., et al. (2023). "Monitoring the large-scale magnetic field of AD Leo with SPIRou, ESPaDOnS, and Narval". *Astronomy & Astrophysics*, 676, 56.

53. Brahm, R., Ulmer-Moll, S., Hobson, M. J., Jordán, A., Henning, T., Trifonov, T., et al. (2023). "Three Long-period Transiting Giant Planets from TESS". *The Astronomical Journal*, 165, 227.

54. Peterson, M. S., Benneke, B., Collins, K., Piaulet, C., Crossfield, I. J. M., Ali-Dib, M., et al. (2023). "A temperate Earth-sized planet with tidal heating transiting an M6 star". *Nature*, 617, 701-705.

55. Boucher, A., Lafreniére, D., Pelletier, S., Darveau-Bernier, A., Radica, M., Allart, R., et al. (2023). "CO or no CO? Narrowing the CO abundance constraint and recovering the H_2O detection in the atmosphere of WASP-127 b using SPIRou". *Monthly Notices of the Royal Astronomical Society*, 522, 5062-5083.

56. Zhang, J., Martin, P. G., **Cloutier, R.**, Price-Jones, N., Abraham, R., van Dokkum, P., & Merritt, A. (2023). "Joint Modeling of Dust Scattering and Thermal Emission: The Spider Complex". *The Astrophysical Journal*, 948, 4.

57. Cortés-Zuleta, P., Boisse, I., Klein, B., Martioli, E., Cristofari, P. I., Antoniadis-Karnavas, A., et al. (2023). "Optical and near-infrared stellar activity characterization of the early M dwarf Gl 205 with SOPHIE and SPIRou". *Astronomy & Astrophysics*, 673, 14.

58. Cherubim, C., **Cloutier, R.**, Charbonneau, D., Stockdale, C., Stassun, K. G., Schwarz, R. P., et al. (2023). "TOI-1695 b: A Water World Orbiting an Early-M Dwarf in the Planet Radius Valley". *The Astronomical Journal*, 165, 167.

59. Hawthorn, F., Bayliss, D., Wilson, T. G., Bonfanti, A., Adibekyan, V., Alibert, Y., et al. (2023). "TOI-836: A super-Earth and mini-Neptune transiting a nearby K-dwarf". *Monthly Notices of the Royal Astronomical Society*, 520, 3649-3668.

60. DiTomasso, V., Nava, C., López-Morales, M., Bieryla, A., **Cloutier, R.**, Malavolta, L., et al. (2023). "Independent Validation of the Temperate Super-Earth HD 79211 b using HARPS-N". *The Astronomical Journal*, 165, 38.

61. Lillo-Box, J., Gandolfi, D., Armstrong, D. J., Collins, K. A., Nielsen, L. D., Luque, R., et al. (2023). "TOI-969: a late-K dwarf with a hot mini-Neptune in the desert and an eccentric cold Jupiter". *Astronomy & Astrophysics*, 669, 109.

62. El Mufti, M., Plavchan, P. P., Isaacson, H., Cale, B. L., Feliz, D. L., Reefe, M. A., et al. (2023). "TOI 560: Two Transiting Planets Orbiting a K Dwarf Validated with iSHELL, PFS, and HIRES RVs". *The Astronomical Journal*, 165, 10.

63. Cadieux, C., Doyon, R., Plotnykov, M., Hébrard, G., Jahandar, F., Artigau, É., et al. (2022). "TOI-1452 b: SPIRou and TESS Reveal a Super-Earth in a Temperate Orbit Transiting an M4 Dwarf". *The Astronomical Journal*, 164, 96.

64. Barragán, O., Armstrong, D. J., Gandolfi, D., Carleo, I., Vidotto, A. A., Villarreal D'Angelo, C., et al. (2022). "The young HD 73583 (TOI-560) planetary system: two 10-$M_\oplus$ mini-Neptunes transiting a 500-Myr-old, bright, and active K dwarf". *Monthly Notices of the Royal Astronomical Society*, 514, 1606-1627.

65. Winters, J. G., **Cloutier, R.**, Medina, A. A., Irwin, J. M., Charbonneau, D., Astudillo-Defru, N., et al. (2022). "A Second Planet Transiting LTT 1445A and a Determination of the Masses of Both Worlds". *The Astronomical Journal*, 163, 168.

66. Silverstein, M. L., Schlieder, J. E., Barclay, T., Hord, B. J., Jao, W. -C., Vrijmoet, E. H., et al. (2022). "The LHS 1678 System: Two Earth-sized Transiting Planets and an Astrometric Companion Orbiting an M Dwarf Near the Convective Boundary at 20 pc". *The Astronomical Journal*, 163, 151.

67. Martioli, E., Hébrard, G., Fouqué, P., Artigau, É., Donati, J. -F., Cadieux, C., et al. (2022). "TOI-1759 b: A transiting sub-Neptune around a low mass star characterized with SPIRou and TESS". *Astronomy & Astrophysics*, 660, 86.

68. Wilson, T. G., Goffo, E., Alibert, Y., Gandolfi, D., Bonfanti, A., Persson, C. M., et al. (2022). "A pair of sub- Neptunes transiting the bright K-dwarf TOI-1064 characterized with CHEOPS". *Monthly Notices of the Royal Astronomical Society*, 511, 1043-1071.

69. Giacalone, S., Dressing, C. D., Hedges, C., Kostov, V. B., Collins, K. A., Jensen, E. L. N., et al. (2022). "Validation of 13 Hot and Potentially Terrestrial TESS Planets". *The Astronomical Journal*, 163, 99.

70. Kaye, L., Vissapragada, S., Günther, M. N., Aigrain, S., Mikal-Evans, T., Jensen, E. L. N., et al. (2022). "Transit Timings Variations in the three-planet system: TOI-270". *Monthly Notices of the Royal Astronomical Society*, 510, 3483.

71. Saunders, N., Grunblatt, S. K., Huber, D., Collins, K. A., Jensen, E. L. N., Vanderburg, A., et al. (2022). "TESS Giants Transiting Giants. I.: A Non-inflated Hot Jupiter Orbiting a Massive Subgiant". *The Astronomical Journal*, 163, 53.

72. Boucher, A., Darveau-Bernier, A., Pelletier, S., Lafrenière, D., Artigau, É., Cook, N. J., et al. (2021). "Characterizing Exoplanetary Atmospheres at High Resolution with SPIRou: Detection of Water on HD 189733 b". *The Astronomical Journal*, 162, 233.

73. **Cloutier, R.**, Charbonneau, D., Deming, D., Bonfils, X., & Astudillo-Defru, N. (2021). "A More Precise Mass for GJ 1214 b and the Frequency of Multiplanet Systems Around Mid-M Dwarfs". *The Astronomical Journal*, 162, 174.

74. Teske, J., Wang, S. X., Wolfgang, A., Gan, T., Plotnykov, M., Armstrong, D. J., et al. (2021). "The Magellan-TESS Survey. I. Survey Description and Mid-survey Results". *The Astrophysical Journal Supplement Series*, 256, 33.

75. Osborn, A., Armstrong, D. J., Cale, B., Brahm, R., Wittenmyer, R. A., Dai, F., et al. (2021). "TOI-431/HIP 26013: a super-Earth and a sub-Neptune transiting a bright, early K dwarf, with a third RV planet". *Monthly Notices of the Royal Astronomical Society*, 507, 2782-2803.

76. **Cloutier, R.**, Charbonneau, D., Stassun, K. G., Murgas, F., Mortier, A., Massey, R., et al. (2021). "TOI- 1634 b: An Ultra-short-period Keystone Planet Sitting inside the M-dwarf Radius Valley". *The Astronomical Journal*, 162, 79.

77. Bluhm, P., Pallé, E., Molaverdikhani, K., Kemmer, J., Hatzes, A. P., Kossakowski, D., et al. (2021). "An ultra-short-period transiting super-Earth orbiting the M3 dwarf TOI-1685". *Astronomy & Astrophysics*, 650, 78.

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109. Currie, T., Burrows, A., Girard, J. H., **Cloutier, R.**, Fukagawa, M., Sorahana, S., et al. (2014). "Deep Thermal Infrared Imaging of HR 8799 bcde: New Atmospheric Constraints and Limits on a Fifth Planet". *The Astrophysical Journal*, 795, 133.
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111. Currie, T., **Cloutier, R.**, Debes, J., Kenyon, S., & Kaisler, D. (2013). "A Deep Keck/NIRC2 Search for Thermal Emission from Planetary Companions Orbiting Fomalhaut". *The Astrophysical Journal Letters*, 777, 6.

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- Accepted for Publication

1. Radica, M., Cowan, N., **Cloutier, R.**, & Wang, L. "On the Information Content of Ariel Transmission Spectra: Reassessing the Tier System", submitted to *The Astronomical Journal*, accepted September 2026.
2. L'Heureux, A., Doyon, R., Cadieux, C., Petit, P., Lim, O., et al. "Radial Velocity Detection of the TRAPPIST-1 Planetary System with SPIRou and NIRPS", *Astronomy & Astrophysics*, accepted August 2026.
3. Careret, Y., Bourrier, V., Parc, L., Winter, A., Allart, R., et al. "Upside down: GJ 3090 b the first retrograde exoplanet around an M dwarf detected with NIRPS", *Astronomy & Astrophysics*, accepted August 2026.
4. Olivia, V., Miguel, Y., Baeyens, R., Bellotti, S., Cassone, G., et al., "Probing Exoplanetary Chemistry with Ariel: Scientific Priorities and Observational Strategies" *Royal Astronomical Society Techniques & Instruments*, accepted July 2026
5. Srivastava, A., Bouchy, F., Dumusque, X., Artigau, E., Doyon, R., et al., "Night sky emission correction techniques for high-resolution spectroscopy: a demonstration with NIRPS" *Astronomy & Astrophysics*, accepted July 2026

- Submitted for Publication

1. Weisserman, D., **Cloutier, R.**, Rochon, A., Vladimir, Z., Bitsch, B. et al. "New and Updated Rossiter-McLaughlin Measurements for Three Hot Jupiter-Hosting M Dwarfs", submitted to *Publications of the Astronomical Society of the Pacific*, September 2026.
2. Turtelboom, E.V., Korth, J., MacDonald, M., Polanski, A., **Cloutier R.**, et al. "Disentangling TTV and RV signals to reveal a resonant chain in the TOI-1246 system", submitted to *The Astronomical Journal*, September 2026.
3. Skinner, B.N., Pudritz, R.E., **Cloutier R.**, Dorn, C., & Bali, K. "Water in the Interiors of Dry Hot Rocks Orbiting M Dwarfs Can Explain Their Low Densities– But Not Exceptionally Low Densities", submitted to *Nature Astronomy*, September 2026.
4. Gromek, N., Weisserman, D., **Cloutier R.**, L'Heureux, A., & Cadieux, C. "A Framework for Spectroscopic Analyses of Cool Star Elemental Abundances and Application to Five Planet Host Stars", submitted to *Publications of the Astronomical Society of the Pacific*, September 2026.
5. **Cloutier, R.**, Thompson, A., Radica, M., Cowan, N., & Wang, L. "On the Information Content of Ariel Transmission Spectra: Assessing the Impact of the Transit Light Source Effect", submitted to *The Royal Astronomical Society Techniques &*

Instruments: Special issue on "Ariel: mission, science & community engagement", September 2026.

6. Kumar, R., **Cloutier, R.**, Thompson, A., Radica, M., Cowan, N., & Wang, L. "On the Information Content of Ariel Light Curves: Starspot Spectra from Spot-Crossing Events", submitted to *The Royal Astronomical Society Techniques & Instruments: Special issue on "Ariel: mission, science & community engagement"*, September 2026.
7. Van-Lane, P., Speagle, J., **Cloutier, R.**, Theissen, C., Eadie, G., et al. "EncoTESS: A Variability Encoder for TESS Light Curves and its Application for Stellar Age Inference", submitted to *The Astronomical Journal*, August 2026.
8. Cadieux, C., Skinner, B.N., Bouchy, F., Gillis, E.D., Bourrier, V., et al. "A temperate sub-Neptune transiting the M4 Dwarf TOI-210 identified by NIRPS and TESS: Uncovering hidden M-dwarf planetary systems in the near-infrared", submitted to *Astronomy & Astrophysics*, July 2026.
9. Al Moulla, K., Dumusque, X., Faria, J., Santos, N., Cristo, E., et al. "The Sun Through Rose-Colored Glasses: Three Years of Near-Infrared Sun-as-Star Precision Spectroscopy with NIRPS", submitted to *Astronomy & Astrophysics*, July 2026.
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11. Artigau, E., Parent, C.A., Stefanov, A., Bourdais, E., Ouedraogo, S., et al. "Welopo'ai, a peculiar triple system 8 pc from the Sun", submitted to *Astronomy & Astrophysics*, May 2026.
12. Monteiro, T., Gomes da Silva, J., Delgado-Mena, E., Santos, N., Larue, P., et al. "Sensitivity of single-line NIR activity indices in cool stars using HARPS and NIRPS simultaneous observations", submitted to *Astronomy & Astrophysics*, April 2026.
13. Adamski, H., Schlichting, H., Benneke, B., Coulombe, L.P., Raul, E., et al. "Featureless JWST NIRISS/SOSS Spectrum Suggests Possible Sequestration of Light Elements in Core of Super-Earth TOI-1685b", submitted to *The Astronomical Journal*, March 2026.
14. Larue, P., Delfosse, X., Mignon, L., Hara, N., Malo, L. et al. "Revisiting Gl 581 with NIRPS and HARPS: New stellar activity patterns, updated orbital parameters, and improved detection limits", submitted to *Astronomy & Astrophysics*, March 2026.
15. Blakely, D., Thompson, W., Johnstone, D., Speedie, J., Xuan, J.W., et al. "Dynamical Mass Constraints on Transition Disks Perturbers with the G23H Catalog", submitted to *The Astronomical Journal*, February 2026.
16. Anderson, D., Vines, J., Hesse, K., Nielsen, L., Brahm, R., et al. "NGTS-11 c: a transiting Neptune-mass planet interior to the warm Saturn NGTS-11 b", submitted to *Astronomy & Astrophysics*, October 2025.

17. Benneke, B., Roy, P.A., Coulombe, L.P., Radica, M., Piaulet, C., et al. "JWST Reveals CH_4, CO_2, and H_2O in a Metal-rich Miscible Atmosphere on a Two-Earth-Radius Exoplanet", submitted to *The Astronomical Journal*, March 2024.

- Not Peer Reviewed

1. Changeat, Q. et al. (2025) "On the synergetic use of Ariel and JWST for exoplanet atmospheric science", White Paper for the Ariel science mission.
2. Venot, O. et al. (2025) "Ariel Dry-Run Report: Chemistry Working Group White Paper", White Paper for the Ariel science mission.
3. Artigau, É. et al. (2024) "NIRPS first light and early science: breaking the 1 m/s RV precision barrier at infrared wavelengths", Proceeding at the SPIE Astronomical Telescopes + Instrumentation.
4. Malo, L. et al. (2024) "NIRPS near-infrared spectrograph: AITV phase at ESO3.6m/La Silla", Proceeding at the SPIE Astronomical Telescopes + Instrumentation.
5. Saint-Antoine, J. et al. (2024) "VROOMM: a new high-resolution echelle spectrograph for Observatoire du Mont Mégantic", Proceeding at the SPIE Astronomical Telescopes + Instrumentation.
6. Benneke, B., et al. (2020). "Exoplanet Instrumentation in the 2020s: Canada's Pathway Towards Searching for Life on Potentially Earth-like Exoplanets", Canadian Long Range Plan for Astronomy and Astrophysics, LRP2020.
7. Bouchy, F., et al. (2017) "Near-InfraRed Planet Searcher to Join HARPS on the ESO 3.6-metre Telescope", The ESO Messenger, No. 169.
8. Lin, M. -K., & **Cloutier, R.** (2013). "Gravitational instability of planetary gaps and its effect on orbital migration". Proceedings of the International Astronomical Union, 8(S299), 218-219.

Invited Presentations

1. "TESS Planet Occurrence Rates Reveal the Disappearance of the Radius Valley Around Mid-to-Late M Dwarfs", Institute for Research on Exoplanets Seminar, Montreal, QC, July 2026.
2. "TESS Planet Occurrence Rates Reveal the Disappearance of the Radius Valley Around Mid-to-Late M Dwarfs", Workshop on planets around M dwarfs, Lund, Sweden, February 2026.
3. "Aligned Stellar Obliquities for Two Hot Jupiter-hosting M Dwarfs: Implications for Hot Jupiter Formation", Dominion Astrophysical Observatory Colloquium, Victoria, BC, September 2025.
4. "Aligned Stellar Obliquities for Two Hot Jupiter-hosting M Dwarfs: Implications for Hot Jupiter Formation", McMaster Physics & Astronomy Colloquium, Hamilton, ON, September 2025.

5. "Aligned Stellar Obliquities for Two Hot Jupiter-hosting M Dwarfs: Implications for Hot Jupiter Formation", Ralposium 2025: From Stars to Life, Hamilton, ON, June 2025.

6. "Understanding the origins of the galaxy's most common planets around its most common stars", Canadian Astronomical Society AGM, Toronto, ON, June 2024.

7. "Unlocking the Secrets of TOI-1266: an Unconventional Multi-Planet System and its Implications for Sub-Neptune Formation Models", Western University Physics & Astronomy Colloquium, London, ON, March 2024.

8. "Understanding the origins of the galaxy's most common planets around its most common stars", Density Matters, Munich, Germany, February 2024.

9. "Understanding the origins of the galaxy's most common planets around its most common stars", McMaster Faculty of Science Research Faculty Series Colloquium, Hamilton, ON, October 2023.

10. "Unlocking the Secrets of TOI-1266: an Unconventional Multi-Planet System and its Implications for Sub-Neptune Formation Models", Waterloo Centre for Astrophysics Colloquium, Waterloo, ON, October 2023.

11. "Transiting Exoplanet Demographics", 7th SPIRou Science Meeting, Toulouse, France, September 2023.

12. "Understanding the origins of the galaxy's most common planets around its most common stars", Brock University Physics Colloquium, St. Catherines, ON, March 2023.

13. "Understanding the origins of the galaxy's most common planets around its most common stars", York University Physics & Astronomy Colloquium, Toronto, ON, November 2022.

14. "Understanding the origins of the galaxy's most common planets around its most common stars", University of Montreal Astrophysics Seminar, Montreal, QC, October 2022.

15. "The Long Path Towards Finding Habitable Exo-Worlds", Origins Institute, Hamilton, ON, October 2022.

16. "Understanding the origins of the galaxy's most common planets around its most common stars", Queen's University Physics, Engineering Physics, & Astronomy Colloquium, Kingston, ON, September 2022.

17. "Understanding the origins of the galaxy's most common planets around its most common stars", McMaster Physics & Astronomy Colloquium, Hamilton, ON, February 2022.

18. "The stellar mass dependence of the radius valley: insights into forming the rocky/enveloped transition", Harvard Origins of Life Initiative Chalk Talk, Harvard, October 2021.

19. "GJ 1214 and the Frequency of Multi-Planet Systems Around Mid-M Dwarfs", American Museum of Natural History Astrophysics Seminar, Virtual Seminar, October 2021.

20. "Sculpting the Close-in Planet Population Across the Main Sequence", Exoplanets Demographics, Virtual Conference, November 2020.

21. "Testing radius valley emergence models around M dwarfs with Kepler, K2, and TESS", CANadian Virtual Astronomy Seminar (CANVAS), Virtual Seminar, July 2020.

22. "Testing radius valley emergence models around M dwarfs with Kepler, K2, and TESS", Cambridge Exoplanet Seminar, University of Cambridge, April 2020.

23. "A semi-parametric approach to stellar activity and the search for terrestrial mass radial velocity planets", Exoplanet Seminar, University of Geneva, February 2019.

24. "A semi-parametric approach to stellar activity and the search for terrestrial mass radial velocity planets", Center for Exoplanet and Habitable Worlds (CEHW) Seminar, Penn State University, February 2019.

Contributed Presentations (last 6 years)

1. **Cloutier, R.** "Super-Earth Masses and Stellar Abundances from NIRPS Reveal Tentative Evidence for Water-Rich Formation around M Dwarfs", Canadian Astronomical Society AGM, Montreal, QC, June 2026.

2. **Cloutier, R.** "MAROON-X reveals aligned stellar obliquities for two hot Jupiter hosting M dwarfs, TOI-3714 & TOI-5293 A", Canadian Astronomical Society AGM, Halifax, NS, June 2025 (Poster).

3. **Cloutier, R.** "No Answers, Only Questions: the Curious Case of the 'Inverted' Planetary System TOI-1266", CITA Planet Day, Toronto, ON, August 2023.

4. **Cloutier, R.** "CASTOR Stars Working Group Overview", Canadian Astronomical Society AGM, Penticton, BC, June 2023.

5. **Cloutier, R.** "On the Rocky/Enveloped Transition of Hot Planets around Cool Stars", CITA Planet Day, Toronto, ON, August 2022.

6. **Cloutier, R.** "GJ 1214 b and the Frequency of Multi-Planet Systems Around Mid-M Dwarfs", Canadian Astronomical Society AGM, Virtual Conference, May 2021 (Poster).

7. **Cloutier, R.** "Evolution of the Radius Valley from Sun-Like to Low Mass Stars", Exoplanets III, Virtual Conference, July 2020.

8. **Cloutier, R.** "Masses for Planets Transiting M Dwarfs", 235th American Astronomical Society Meeting, Honolulu, HI, January 2020.

9. **Cloutier, R.** "Semi-Parametric Methods to Aid in the Detection and Characterization of Distant Worlds Around Small Stars", 235th American Astronomical Society Meeting, Honolulu, HI, January 2020.

10. **Cloutier, R.** "Present and Future Efforts for PRV Characterization of Southern TESS Planets Through the HARPS M Dwarf Program", TESS Science Conference I, Boston, MA, July 2019.

11. **Cloutier, R.** "Reconciling the Planetary Interpretation of the Radial Velocity Super-Earth K2-18c", Extremely Precise Radial Velocities IV, Grindelwald, Switzerland, March 2019.

Research Funding
As Principal Investigator

Type	Source	Amount	Title	Dates
Operating	Government of Ontario – Early Researcher Awards, Round 19	$30 000 per year (under review)	Understanding the origins of the galaxy's most common planets around its most common stars	2026–31
Operating	NSERC Canada Research Chair (Tier 2)	$125 000 per year	Canada Research Chair in Exoplanetary Astronomy	2025–30
Operating	McMaster – Life Events Support Program	$16 000	Research group support while the PI is on parental leave	2025–26
Operating	McMaster – International Initiatives Micro Fund	$5 000	Characterizing the Dominant Drivers of Planet Evolution around Young M Stars	2025
Operating	NSERC Discovery Grant	$33 000 per year	Understanding the origins of the galaxy's most common planets around its most common stars	2023–28
Operating	NSERC Discovery Grant – Supplement	$12 500	Understanding the origins of the galaxy's most common planets around its most common stars	2023
Contract	Research Initiatives in Grenoble Alpes	€25 000 per year	Characterizing exo-Earths and their planetary system architectures around low-mass stars	2023–26
Operating	NSERC Banting Fellowship	$70 000 per year	Rocks and gas: understanding the formation of the galaxy's most common planets around its most common stars	2021–23
Operating	NASA – TESS Guest Investigator Program (Large)	$250 000 USD	The Physical Origin of the Rocky/Enveloped Transition around Mid-to-Late M Dwarfs	2021–22
Operating	NASA – TESS Guest Investigator Program (Ground-based)	$70 000 USD	Radial Velocity Measurements with HARPS-N to Uncover the Formation Pathway of Keystone Planets around M Dwarfs	2021–22
Operating	NSERC Postgraduate Scholarship – Doctoral	$21 000 per year	Using the Innovative Canadian Instrument SPIRou to Detect and Characterize Earth-like Planets in the Habitable Zones of Nearby M Dwarfs	2016–19

Research Funding (cont.)
As Principal Investigator

Type	Source	Amount	Title	Dates
Award	Lachlan Gilchrist Fellowship	$5 000 per year	Using the Innovative Canadian Instrument SPIRou to Detect and Characterize Earth-like Planets in the Habitable Zones of Nearby M Dwarfs	2015–19
Operating	Ontario Graduate Scholarship	$15 000	Using the Innovative Canadian Instrument SPIRou to Detect and Characterize Earth-like Planets in the Habitable Zones of Nearby M Dwarfs	2015–16
Operating	NSERC Graduate Scholarship – Masters	$17 500	An exoplanet direct-imaging survey in the Sco-Cen star-forming association	2014–15
Award	Centre for Planetary Science – Graduate Scholarship	$10 000	An exoplanet direct-imaging survey in the Sco-Cen star-forming association	2014–15
Award	Mary H. Beatty Scholarship	$5 000	An exoplanet direct-imaging survey in the Sco-Cen star-forming association	2014–15

Other Research Support: Collaborative Grants, Telescope and Computer Time Awarded

Source	Amount	Investigators	Title	Dates
MAROON-X /Gemini-N	22.5 hours	Weisserman, D., **R. Cloutier**, B. Bitsch, E. Deibert, L. Kreidberg, M. Line, T. Mikal-Evans, R. Pudritz, E. Shkolnik, L. Welbanks	Dynamical histories of hot Jupiters around M dwarfs from the Rossiter-McLaughlin effect	2026
SPIRou/ CFHT	98 hours	**R. Cloutier** (co-PI), M. Bryan (co-PI), Y. Chachan	Exploring the correlation between gas giant and super-Earths around M dwarfs	2023–25
MAROON-X /Gemini-N	12 hours	E. Turtelboom (co-PI), **R. Cloutier** (co-PI), et al.	Measuring Near-Resonant Planet Masses in M-dwarf Multi-Planet Systems	2025
MAROON-X /Gemini-N	46 hours	**R. Cloutier**, B. Bitsch, E. Deibert, L. Kreidberg, M. Line, T. Mikal-Evans, R. Pudritz, E. Shkolnik, L. Welbanks	Dynamical histories of hot Jupiters around M dwarfs from the Rossiter-McLaughlin effect	2024–25
SPIRou/ CFHT	5 hours	N. Gromek & **R. Cloutier**	Observing M dwarf sub-Neptune hosts with SPIRou	2024B
GHOST/ Gemini-S	6 hours	**R. Cloutier**, B. Bitsch, E. Deibert, L. Kreidberg, M. Line, T. Mikal-Evans, R. Pudritz, E. Shkolnik, L. Welbanks	Using GHOST to trace the formation histories of hot Jupiters around M dwarfs	2023B
MAROON-X /Gemini-N	6.5 hours	**R. Cloutier**	The Origin of the Rocky/Enveloped Transition around M dwarfs: the Test Case of TOI-5388	2023A
TESS	7 targets	**R. Cloutier**	Winds, Flares, and Orbits in White Dwarf–M Dwarf Binary Systems	Cycle 6 (2023–24)
IGRINS/ Gemini-S	25 hours	**R. Cloutier**, É. Artigau, D. Charbonneau, N. Cook, R. Doyon, F. Jahandar, C. Moutou	Empirically calibrating the method to measure detailed M dwarf elemental abundances	2022
SPIRou/ CFHT	0.5 hours	**R. Cloutier**, É. Artigau, D. Charbonneau, N. Cook, R. Doyon, F. Jahandar, C. Moutou	Recovering the detailed internal structure of the massive terrestrial exoplanet TOI-1235 b	2021

Other Research Support: Collaborative Grants, Telescope and Computer Time Awarded (cont.)

Source	Amount	Investigators	Title	Dates
SPIRou/ CFHT	28 hours	**R. Cloutier**, É. Artigau, D. Charbonneau, N. Cook, R. Doyon, F. Jahandar, C. Moutou	Empirically calibrating the method to measure detailed M dwarf elemental abundances	2021-22
TESS	5 targets	**R. Cloutier**, D. Charbonneau	Radial Velocity Measurements with HARPS-N to Uncover the Formation Pathway of Keystone Planets around M Dwarfs	Cycle 4 (2021)
TESS	12.324 targets	**R. Cloutier**, D. Charbonneau, K. Ment, E. Pass, J. Winters	Establishing the Origin of the Rocky/Enveloped Transition around Mid-to-Late M Dwarfs	Cycles 3-5 (2020-23)
SPIRou/ CFHT	28 hours	**R. Cloutier**, N. Cook, J. Morin, C. Moutou, E. Newton, J. Rowe, H. Wang, S. Wang, J. Zhang	RVxTESS: Photometric and Spectropolarimetric studies of M dwarfs with simultaneous TESS and CFHT/SPIRou Observations	2019-20

Professional Organizations

Canadian Astronomical Society (2015-)
International Astronomical Union (2022-)
American Astronomical Society (2019-22)

Scholarly and Professional Activities

Grant and Personnel Committees

NASA Roman review panelist, 2025
Canadian Space Agency JWST Cycle 4 funding proposal reviewer, 2025
NASA Postdoctoral Program selection committee, 2023-24
NASA Exoplanets Research Program (XRP) review panelist, 2021,23

Executive Positions

Scientific Advisory Council (SAC) member, Canada-France-Hawaii Telescope, 2025-2030
McMaster representative on the Association of Canadian Universities for Research in Astronomy (ACURA), 2025-2030

Journal Referee
Astronomy & Astrophysics (A&A), 2019-
Astronomical Journal (AJ), 2017-
Astrophysical Journal (ApJ), 2021-
Monthly Notices of the Royal Astronomical Society (MNRAS), 2020-
Proceedings of the National Academy of Sciences (PNAS), 2021-
Publications of the Astronomical Society of the Pacific (PASP), 2026-

External Telescope Time Allocation Reviews
CanTAC Galactic Panel member, 2023-26
James Webb Space Telescope (JWST) external reviewer, 2022-
Gemini Observatory external reviewer, 2021-
Canada-France-Hawaii Telescope (CFHT) external reviewer, 2019-

Conference Organization

- CFHT Users Meeting SOC member, Auberge du Lac-à-L'eau-Claire, QC, May 2025
- CASCA Annual General Meeting SOC member, Penticton, BC, June 2023

Administrative Responsibilities

Department

- Comprehensive examination committee, member, 2023-25
- Undergraduate recruitment and outreach committee, member, 2023-24
- Colloquium committee, member, 2022-23
- Graduate admissions committee, member, 2022-23

Faculty

- Origins Institute Scientific Steering committee, member, 2023-

University

- MUFA Council member, Physics & Astronomy representative, 2023-24

Courses Taught (last five years)

Undergraduate
ASTRON 2E03 - Planetary Astronomy, 2023-2025, 2027
BIOPHYS 3D03 - Origin of Life, 2024

Graduate
PHYSICS 761 - Introduction to Astrophysics I, 2025-2026
PHYSICS 766 - Statistics in Astronomy, 2026
PHYSICS 769 - Optical/Infrared Astronomy Techniques, 2026

PHYSICS 775 - Planetary Astronomy, 2025

Other activities related to teaching

- Technical Skills Workshop lecturer - "How to Referee Papers", 2025
- Guest lecturer in exoplanet observations for ORIGINS 701 - A Survey of Astrobiology, 2024
- Participant at the American Association of Physics Teachers (AAPT) Faculty Teaching Institute (FTI), Washington, DC, Summer 2023
- Astrobiology graduate student consultant for ORIGINS 701 (Julie Hartz & Libby Tunney), 2023

Supervisorships

Undergraduate Students (2 in progress, 15 completed)

1. Krishanth Sivendran, PHYS 4P06 Senior Thesis, 2026-27
2. Lindsay Morden, NSERC USRA + PHYS 4P06 Senior Thesis, 2026-27
3. Camilo Ospinal, MITACS Globalink student, 2026
4. Nicole Robertson, PHYS 4L03 Literature Review, 2025-26
5. Ana Molina Colina, Physics Co-op, 2025
6. Noah Fenlon, PHYS 4P06 Senior Thesis, 2024-25
7. Caitlin Lloyd, PHYS 4P06 Senior Thesis, 2024-25
8. Rohan Kumar, MITACS Globalink student, 2024
9. Leo Wang, NSERC USRA, 2024
10. Kareena Bhalla, NSERC USRA + PHYS 4P06 Senior Thesis, 2023-24
11. Audrey Burggraf, PHYS 4P06 Senior Thesis, 2023-24
12. Omar Elmi, Summer work position, 2023
13. Dante Hunter, Physics Co-op + PHYS 4P06 Senior Thesis, 2023-24
14. Victor Pop, Physics 4IS3 Independent Research, 2023
15. Ava Whitehead, iSci Independent Research, 2023
16. Madison VanWyngarden, Research Experience for Undergraduates (REU), 2022-24
17. Anna Simpson, Research Experience for Undergraduates (REU), 2021-22

Masters Students (2 in progress, 5 completed)

1. Rohan Kumar, 2025-, "Are Low Mass M dwarfs Polar Spotted? Constraining Starspot Distributions via Stellar Flare Timing"
2. Alexandra Rochon, 2025-, "Understanding the Impact of Cold Gas Giants on the Formation of Super-Earths and Sub-Neptunes with Astrometry"
3. Bennett Skinner, 2023-25, "Exoplanet Mass-Radius Relations Incorporating State-of-the-art Physics Validated on Solar System Objects" (co-supervised by R. Pudritz)
4. Drew Weisserman, 2023-25, "Super-Earth Masses and Stellar Abundances from NIRPS Reveal Tentative Evidence for Water-Rich Formation around M Dwarfs"

5. Raven Westlake, 2023-25, "The White Dwarf Opportunity: Constraining M dwarf Stellar Winds using White Dwarf Companions" (co-supervised by A. Sills)
6. Erik Gillis, 2022-24, "Characterizing the Exoplanet Population around Mid-to-Late M Dwarfs"
7. Nicole Gromek, 2022-24, "A Detailed Spectroscopic Framework for Deriving Elemental Abundances in M Dwarfs"

Doctoral Students (5 in progress, 0 completed)

1. Bennett Skinner, 2025-, "Does Water-Rich Planet Formation Explain the Origin of the M Dwarf Radius Valley?" (co-supervised by R. Pudritz)
2. Drew Weisserman, 2025-, "Uncovering the Diversity of Rocky Planet Iron Core Mass Fractions"
3. Erik Gillis, 2024-, "Characterizing the Exoplanet Population around Mid-to-Late M Dwarfs"
4. Nicole Gromek, 2024-, "Empirically Calibrating a Method to Measure Accurate M Dwarf Elemental Abundances"
5. Phil Van-Lane (UofT), 2023-, "From Stars to Statistics: Examining Exoplanet Populations through Machine Learning and Stellar Activity" (co-supervised by G. Eadie & J. Speagle)

Postdoctoral (2 in progress, 1 completed)

- Dr Melissa Hobson, 2026-, joint McMaster/Université de Grenoble Alpes postdoctoral fellow
- Dr Emma Turtelboom, 2025-, Herschel postdoctoral fellow
- Dr Ares Osborn, 2023-25, joint McMaster/Université de Grenoble Alpes postdoctoral fellow

Supervisory Committees
Evan Henderson, M.Sc. (supervisor R. Pudritz), 2025-
Dilen Moodelly, M.Sc. (supervisor R. Pudritz), 2024-
Zena Khadour, M.Sc. (supervisor A. Sills), 2024-
Atesh Goksu, M.Sc. & Ph.D. (supervisor R. Pudritz), 2023-
Zara Zaman, M.Sc. (supervisor J. Bhattacharya), 2023-25
Kaitlin Cerrillo, Ph.D. (supervisor R. Pudritz), 2022-25
Michelle Nguyen, M.Sc. (supervisor A. Sills), 2022-23

Comprehensive Examining Committees
Dylan Lazarus (supervisor L. Parker) 2025
Jennifer Laing (supervisor C. Wilson) 2025
Padraic Odesse (supervisor J Wadsley) 2025
Megan Oxland (supervisor L. Parker) 2025
Kaitlin Cerrillo (supervisor R. Pudritz) 2024
Katherine Hartman (supervisor W. Harris) 2024

Claude Cournoyer-Cloutier (supervisors A. Sills & W. Harris) 2023

Public Outreach

- Speaker for the 2024 Solar Eclipse Lecture Series, "The 2024 Total Solar Eclipse", March 2024.
- Presenter for the Brighter World Expert Explainer Instagram channel, March 2024.
- Guest on the Faculty of Science's podcast series Moment/Mentor/Memento (hosted and produced by journalist-in-residence Jeff Goodes), December 2023.
- Guest lecturer for 2nd-year physics students, McMaster University, November 2023.
- Guest lecturer for the Royal Astronomical Society of Canada's Public Lecture Series, Mississauga, "The Long Path Toward Finding Habitable ExoWorlds", June 2023.
- Speaker for the McMaster Children and Youth University (MCYU) Family Lecture Series, "Dancing Shadows: How to Discover a New Planet Beyond our Solar System", April 2023.
- Speaker for the Origins Institute Public Lecture Series, "The Long Path Toward Finding Habitable ExoWorlds", November 2022.
- Speaker for the Octave of Light Concert Series (public lecture fused with musical accompaniment), November 2021.
- Speaker for the Center for Astrophysics — Harvard & Smithsonian Latino Initiative Program, "An Introduction to Exoplanets", June 2021.
- Classroom guest speaker
  - St. Joachim Elementary School, Brampton ON, 2021.
  - Christ the King Elementary School, Richmond Hill, ON, 2018.
- Speaker for AstroTour Public Lecture Series, University of Toronto, "The Long Path Toward Finding Habitable ExoWorlds", October 2017.
- Speaker for Graduate Speaker Series, University of Toronto, "The Long Path Toward Finding Habitable ExoWorlds", September 2017.
- Science Unlimited Summer Camp volunteer, University of Toronto, 2017-18.
- Executive committee member for the AstroTours public lecture series, University of Toronto, 2016-18.
- Planetarium presenter for the Mystical Landscapes art exhibit, Art Gallery of Ontario, December 2016.
- Guest lecturer for the North York Astronomical Association's Public Lecture Series, North York, "Studying the Early Dynamical Evolution of the Solar System", November 2015.
- Planetarium presenter, University of Toronto, 2015-19.