

Matthew Conor Nixon

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CURRENT POSITION

51 Pegasi b Postdoctoral Fellow (2025-present)
School of Earth and Space Exploration, Arizona State University

PREVIOUS EMPLOYMENT

Postdoctoral Research Associate (2022-2025)
Department of Astronomy, University of Maryland, College Park

EDUCATION

Ph.D. in Astrophysics (2018-2023)
Institute of Astronomy, University of Cambridge
Thesis: “Investigating the Characteristics of Exoplanetary Atmospheres and Interiors”
Supervised by Prof. Nikku Madhusudhan
Passed with no corrections (defended September 2022, graduated July 2023)

BA/MA/MSci in Natural Sciences (2014-2018)
Clare College, University of Cambridge
First Class Honors in final examinations (Part III Astrophysics)
MSci research project: “Expanding the Observational Frontier of Planet Formation”
Supervised by Dr. Mihkel Kama

PUBLICATION SUMMARY

32 peer-reviewed papers, 7 peer-reviewed first author papers
2 additional submitted papers (1 first author, 1 co-author)
1610 total citations, h-index 19
ADS library: ui.adsabs.harvard.edu/public-libraries/iWg74gWxQR6DrRZvEasHVw
ORCID: 0000-0001-8236-5553
Full publication list included at the end of this document.

AWARDS AND OBSERVING PROPOSALS

Involved in >500h of JWST observing proposals, secured >\$1 million in competitive grants
2025 Heising-Simons 51 Pegasi b Fellowship award, \$450,000
2025 Principal Investigator, JWST Cycle 4 GO program: *Completing the sub-Neptune Spectral Sequence with HD 86226 c*, ID #7407, total award \$212,987

- 2025 Co-principal Investigator, JWST Cycle 4 GO program: *Resolving Atmospheric Uncertainties and Building a Legacy Dataset for WASP-39b*, ID #8017, total award \$153,549
- 2025 Co-principal Investigator, JWST Cycle 4 GO program: *Bridging the generation gap with TOI-1801 b, a 700 Myr-old temperate sub-Neptune*, ID #6932, total award \$286,747
- 2025 Co-investigator, JWST Cycle 4 GO program: *Ammonia and methane on a temperate giant planet orbiting a late M dwarf*, ID #8696. PI: Michael Zhang
- 2025 Co-investigator, JWST Cycle 4 GO program: *The Warm Jupiter Opportunity for Understanding Giant Exoplanet Evolution*, ID #9025. PI: Peter Gao
- 2025 Co-investigator, Lawrence Livermore National Laboratory Grand Compute Challenge, Tier 1 Award: *Comprehensive Modeling and Inference for the JWST Exoplanet Population*, 200,000 CPU hours + 10,000 GPU hours. PI: Peter McGill
- 2024 Principal Investigator, JWST Cycle 3 AR program: *A High-Performance Analysis Framework for JWST Exoplanet Observations*, ID #6347, total award \$228,799
- 2024 Co-investigator, JWST Cycle 3 GO program: *Observing the Atmosphere of a Pulsar Planet*, ID #5263. PI: Michael Zhang
- 2024 Co-investigator, JWST Cycle 3 AR program: *From Dawn to Dusk: Diagnosing Asymmetric Limbs in Exoplanet Transmission Spectra*, ID #5275. PI: Eliza Kempton
- 2024 Principal Investigator, LDT EXPRES observing program, 2024A: *Atmospheric Characterization of the Inflated Hot Jupiter KELT-4 A b*, ID #M10
- 2024 UMD Astronomy department Postdoctoral Prize for Excellence
- 2023 Co-investigator, JWST Cycle 2 AR program: *Eureka!: An Open-Source Pipeline for JWST Time-Series Observations*, ID #3273. PI: Kevin Stevenson
- 2023 Co-investigator, JWST Cycle 2 GO program: *To be or not to be in equilibrium: Probing disequilibrium chemistry on the warm sub-Neptune TOI-270 d*, ID #3818. PI: Cyril Gapp
- 2023 Other Worlds Laboratory Exoplanets Research Grant, \$5,000
- 2022 Research internship award in data science, Alan Turing Institute, London
- 2021 Finalist for Astrostatistics Interest Group Student Paper Prize
- 2021 Cambridge University Language Program award for Advanced French (C1 Level)
- 2018 UK Science and Technologies Facilities Council, Center for Doctoral Training, studentship in Data Intensive Science, £78,174
- 2018 Honorary Scholarship, Clare College (for outstanding final-year examinations)
- 2014 Choral Scholarship, Clare College, Cambridge
- 2014 Top Candidate in Northern Ireland, CCEA A Level Music
- 2014 Top Candidate in Northern Ireland, CCEA A Level French
- 2014 Honorable Mention, International Linguistics Olympiad, Beijing
- 2014 Gold medal, All-Ireland Linguistics Olympiad
- 2011 Second-placed candidate in Northern Ireland, CCEA GCSE Mathematics

INVITED TALKS AND SEMINARS

- 2026 Astrophysics colloquium, University of Illinois Urbana-Champaign. *Transforming exoplanet atmospheric and interior characterisation in the JWST era*
- 2026 Space Sciences Institute Seminar, Lawrence Livermore National Laboratory. *Revealing the Nature of sub-Neptune Exoplanets through Atmospheric and Interior Characterization*
- 2025 International Conference on Exoplanets and Planet Formation, Shanghai, China. *Examining the role of magma oceans in shaping sub-Neptune atmospheres*
- 2025 Kavli Institute for Astronomy and Astrophysics Seminar, Peking University. *Revealing the Nature of sub-Neptune Exoplanets through Atmospheric and Interior Characterization*
- 2025 American Geophysical Union annual meeting, New Orleans, Louisiana. *Observable signatures of magma-atmosphere interactions in sub-Neptunes*
- 2025 Astrophysics Lunch Seminar, Cornell University. *Uncovering the Nature of sub-Neptune Exoplanets through Atmospheric and Interior Characterisation*
- 2025 51 Pegasi b Summit, Half Moon Bay, California. *Uncovering the Nature of sub-Neptune Exoplanets through Atmospheric and Interior Characterization*
- 2025 ExoCoffee, Max Planck Institute for Astronomy. *The Internal Structure of GJ 1214 b Informed by JWST*
- 2024 Goldschmidt Conference, Chicago, Illinois. *Exoplanet Atmospheres in the Era of JWST*
- 2024 Exoplanets colloquium, University of California, Los Angeles. *Transforming exoplanet atmospheric and interior models for the JWST era*
- 2024 Density Matters, Ringberg Castle, Kreuth, Germany. *The internal structure of the sub-Neptune GJ 1214 b informed by JWST*
- 2023 Planetary Astronomy Lunchtime Seminar, University of Maryland. *Robust atmospheric inference in the face of multiple candidate models*
- 2023 Exoplanet Journal Club, University of Chicago. *Model Uncertainty in Retrievals of Exoplanet Atmospheres*
- 2023 Astronomy seminar series, Carnegie Earth and Planets Laboratory. *Robust Atmospheric Retrieval of Exoplanets in the JWST Era*
- 2022 Center for Theory and Computation seminar, University of Maryland. *Uncovering the Nature of Exoplanet Atmospheres through Transit Spectroscopy*
- 2021 Exoplanets seminar, Caltech (presented virtually). *Uncovering the Nature of Exoplanet Atmospheres through Transit Spectroscopy*
- 2021 Exoplanets seminar, Imperial College London. *Uncovering the Nature of Exoplanet Atmospheres and Interiors*
- 2021 Alan Turing Institute seminar series, London, UK. *Uncovering the Nature of Exoplanet Atmospheres through Transit Spectroscopy*
- 2020 Institute of Astronomy seminar series, University of Cambridge. *Characterisation of super-Earths using internal structure models*

CONTRIBUTED PRESENTATIONS

- 2026 American Astronomical Society Meeting 247, Phoenix, Arizona. **Talk:** *Demystifying K2-18 b: exploring the causes of disparate atmospheric and interior hypotheses*
- 2025 Exoclimates VII, Université de Montréal. **Talk:** *Observable signatures of magma-atmosphere interactions in sub-Neptunes*
- 2025 European Astronomical Society Meeting, University College Cork. **Talk:** *Ensemble Methods for Combining Results of Multiple Atmospheric Retrieval Analyses*
- 2025 American Astronomical Society Meeting 245, National Harbor, Maryland. **Talk:** *Observable signatures of magma-atmosphere interactions in sub-Neptunes*
- 2024 Extreme Solar Systems V, Christchurch, New Zealand. **Poster:** *Incorporating Model Uncertainty into Exoplanet Atmospheric Analysis*
- 2024 Chesapeake Bay Area Exoplanet Meeting, Space Telescope Science Institute. **Talk:** *New insights into the internal structure of the sub-Neptune GJ 1214 b informed by JWST*
- 2024 American Astronomical Society Meeting 243, New Orleans, Louisiana. **Talk:** *Incorporating Model Uncertainty into Exoplanet Atmospheric Analysis*
- 2023 Exoclimates VI, University of Exeter. **Talk:** *Three-Dimensional Atmospheric Retrieval of Exoplanets*
- 2023 Spring Symposium, Space Telescope Science Institute. **Poster:** *Three-Dimensional Atmospheric Retrieval of Exoplanets*
- 2023 European Astronomical Society Meeting, Krakow, Poland. **Talk:** *New insights into the internal structure of the sub-Neptune GJ 1214 b informed by JWST*
- 2023 European Astronomical Society Meeting, Krakow, Poland. **Poster:** *Three-Dimensional Atmospheric Retrieval of Exoplanets*
- 2023 Emerging Researchers in Exoplanet Science, Yale. **Talk:** *Advances in atmospheric modelling and retrieval for the JWST era*
- 2022 National Astronomy Meeting, University of Warwick. **Talk:** *Three-Dimensional Atmospheric Retrieval of Exoplanets*
- 2022 Exoplanets IV, Las Vegas, Nevada. **Poster:** *Multi-Dimensional Atmospheric Retrieval of Exoplanets with Aura-3D*
- 2022 Exoplanet Modelling in the JWST Era, Royal Astronomical Society (presented virtually). **Talk:** *How deep is the ocean? The structure of water-rich sub-Neptunes*
- 2021 Astronomy in the Crossroads of Interdisciplinary and Multidisciplinary Sciences, virtual conference. **Talk:** *Machine Learning for Atmospheric Retrieval of Exoplanets*
- 2021 Joint Statistical Meetings, virtual conference. **Talk:** *Assessment of Supervised Machine Learning for Atmospheric Retrieval of Exoplanets*
- 2021 AAS Meeting 237, virtual conference. **Talk:** *Effects of three-dimensional temperature structure on exoplanetary transmission spectra*
- 2021 Exoplanets III, virtual conference. **Poster:** *Internal Structures of Super-Earths and Mini-Neptunes*
- 2019 Extreme Solar Systems IV, Reykjavik, Iceland. **Poster:** *Assessment of Machine Learning for Analysing Exoplanet Atmospheres*

2019 Clareity Symposium, Clare College, Cambridge. **Talk:** *Remote Sensing of Extraterrestrial Worlds*

MAJOR COLLABORATIONS

- Co-leader of EXOMINTS (EXOplanet Model Interrogation and New Techniques Sprints), international collaboration on exoplanet modelling, other co-leaders: Luis Welbanks, Peter McGill
- Member of KRONOS (Keys to Revealing the Origin and Nature Of sub-neptune Systems), international collaboration on analysis of observations from the largest JWST time allocation in Cycle 3, leaders: Adina Feinstein and Luis Welbanks
- Member of JWST Gentle Giants survey, international collaboration on analysis of JWST observations, leader: Peter Gao
- Member of JWST Water Worlds survey, international collaboration on analysis of JWST observations, leader: Björn Benneke
- Member of JWST Mornings and Evenings team, international collaboration on analysis of JWST observations, leaders: Nestor Espinoza and Diana Powell
- Member of MANATEE (MIRI And NIRCам Assay for the Transmission and Emission of Exoplanets) programme, international collaboration on analysis of JWST Guaranteed Time observations, leader: Thomas Greene
- Member of JWST Transiting Exoplanet Community Early Release Science team international collaboration on analysis of early-release JWST observations, leaders: Natalie Batalha, Jacob Bean and Kevin Stevenson
- Member of AETHeR (Atmospheric Empirical, Theoretical and Experimental Research), international collaboration funded by a Simons Foundation grant to study the atmospheres of small exoplanets, leader: Anat Shahar

STUDENT MENTORING

- Yoav Rotman, PhD student, Arizona State University. Principal Advisor: L Welbanks
Mentorship led to publication of Rotman et al. 2025 (incl. Nixon), ApJ, 989, 201
- Finnegan Keller, PhD student, Arizona State University. Principal Advisor: L Welbanks
- Brian Davenport, PhD student, University of Maryland. Principal Advisor: E Kempton
Mentorship led to publication of Davenport et al. 2025 (incl. Nixon), ApJL, 984, 44
- Jegug Ih, PhD student, University of Maryland. Principal Advisor: E Kempton
Mentorship led to submitted paper Ih et al. 2025 (incl. Nixon), arXiv:2508.08253
- Biruk Nardos, undergraduate honors thesis, Hobart and William Smith Colleges.
Mentorship led to admission to PhD program at Arizona State University
- Bodie Breza, undergraduate honors thesis, University of Maryland.
Mentorship led to publication of Breza et al. 2025 (incl. Nixon), ApJL, 993, 46
- Isabel Kahn, undergraduate NASA Space Grant fellow, Arizona State University.
- Rodney Speight, undergraduate intern, University of Maryland.

- Bibhuti Shah, undergraduate intern, University of Maryland.
- Tolu Owujuyigbe, undergraduate intern, University of Maryland.

TEACHING, SERVICE AND OUTREACH

- Guest lecturer for ASTR 320 (Theoretical Astrophysics), University of Maryland, 2024
- Guest lecturer, University of Maryland Advancing Diversity in Astronomy and Physics program, 2023-2024
- Diversity, Equity and Inclusion Committee member, University of Maryland, 2023-2025
- Teaching assistant for final-year undergraduate Astrophysics courses at the University of Cambridge: Structure and Evolution of Stars and Statistical Physics, 2019-2022
- External examiner for honors undergraduate research panel, Hobart and William Smith Colleges, 2025
- Internal examiner for honors undergraduate research panel, University of Maryland, 2025
- JWST Cycle 3 Time Allocation Committee panelist (Exoplanets and Disks)
- JWST Cycle 4 Time Allocation Committee panelist (Exoplanet Atmospheres and Habitability)
- Scientific Organising Committee, *Building Bridges II*, University of Maryland, 2023
- Lead organizer of two weekly UMD talk series: Centre for Theory and Computation seminar (2023) and Planetary Astronomy lunchtime seminar (2023-2024)
- Co-organizer of “Better Astronomy for a New Generation” seminar series, University of Maryland, 2025
- Interviewed for *Starts With A Bang* podcast: “Exoplanet Biosignatures”, 2025
- Interviewed for Event Horizon podcast: “How Do We Know What We’re Seeing on K2-18 b?”, 2025
- Public talk, Cambridge University Astronomical Association public lecture series, August 2022: *What can we expect from JWST?*
- Referee for MNRAS, AJ, ApJ, Nature, and A&A
- Member of the American Astronomical Society (2023–present)

PUBLIC SOFTWARE AND TEACHING MATERIAL

- SMILE (Structural Model of Internal Layers of Exoplanets), exoplanet interior model used in research and teaching, available at github.com/mcnixon/smile
- Undergraduate intern research course in exoplanet transits, available via Jupyter notebooks at github.com/mcnixon/gradmap-exo-transits
- Tutorial for implementing leave-one-out cross validation in exoplanet atmospheric analysis, available via Jupyter notebooks at github.com/exoInference/loo_cv_tutorials

MEDIA AND PRESS RELEASES

- *Standing on a sub-Neptune*. AAS Nova, summary of second author paper (led by mentored student), 2025

- *New study revises our picture of the most common types of planets in the galaxy.* Arizona State University press release, second author paper (led by mentored student), 2025
- *Claim of alien life on distant world meets swift scientific pushback.* AAAS Science news article, interview about co-first author paper, 2025.
- *A surprising study found hints of biological activity on a distant planet. Now, scientists say there's more to the story.* CNN, interview about co-first author paper, 2025
- *Hopes for alien life dim as doubts emerge over exoplanet K2-18b chemical signals.* [Phys.org](https://phys.org), interview about co-first author paper, 2025
- *Hoe sterk is 'het beste bewijs voor buitenaards leven'? (How strong is 'the best evidence for extraterrestrial life'?)* Trouw, interview about co-first author paper, 2025
- *New Studies Dismiss Signs of Life on Distant Planet.* New York Times, interview about co-first author paper, 2025
- *Astronomers Detect a Possible Signature of Life on a Distant Planet.* New York Times, interview providing commentary (not involved in study), 2025
- *Eight Post-Doctoral Scientists Awarded 51 Pegasi b Fellowship.* Heising-Simons Foundation press release, 2025
- *ASU to host 2 new 51 Pegasi b Fellows, cementing leadership in exoplanet research.* Arizona State University press release, 2025
- *NASA's Webb Lifts Veil on Common but Mysterious Type of Exoplanet.* NASA press release, third author paper (led by mentored student), 2025
- *Researchers Measure the Light Emitted by a Sub-Neptune Planet's Atmosphere for the First Time.* University of Maryland press release, co-author paper, 2023
- *NASA's Webb Takes Closest Look Yet at Mysterious Planet.* NASA press release, co-author paper, 2023
- *NASA's Webb Reveals an Exoplanet Atmosphere as Never Seen Before.* NASA press release, co-author paper, 2022
- *NASA's Webb Detects Carbon Dioxide in Exoplanet Atmosphere.* NASA press release, co-author paper, 2022
- *How deep is an exoplanet's ocean?* Astrobites, summary of first author paper, 2021
- *Machine learning can help decode alien skies, up to a point.* Eos, American Geophysical Union, interview about first author paper, 2020
- *Potentially habitable exoplanet could broaden the search for life beyond Earth.* CNN, interview about second author paper, 2020
- *Large exoplanet could have the right conditions for life.* University of Cambridge press release, second author paper, 2020

PUBLICATIONS

First author

1. **Nixon, M. C.**; Somers, S.; Savel, A. et al. *Magma ocean interactions can explain JWST observations of the sub-Neptune TOI-270 d.* 2025, ApJ, 995, 95

2. Welbanks, L.; **Nixon, M. C.** (co-first author); McGill, P. et al. *Challenges in the detection of gases in exoplanet atmospheres*. 2025, *Nature Astronomy*, 10, 234
3. **Nixon, M. C.**; Piette, A. A. A.; Kempton, E. M.-R. et al. *New insights into the internal structure of GJ 1214 b informed by JWST*. 2024, *ApJ Letters*, 970, L28
4. **Nixon, M. C.**; Welbanks, L.; McGill, P.; Kempton, E. M.-R. *Methods for Incorporating Model Uncertainty into Exoplanet Atmospheric Analysis*. 2024, *ApJ*, 966, 156
5. **Nixon, M. C.**; Madhusudhan, N. *Aura-3D: A Three-dimensional Atmospheric Retrieval Framework for Exoplanet Transmission Spectra*. 2022, *ApJ*, 935, 73
6. **Nixon, M. C.**; Madhusudhan, N. *How deep is the ocean? Exploring the phase structure of water-rich sub-Neptunes*. 2021, *MNRAS*, 505, 3414
7. **Nixon, M. C.**; Madhusudhan, N. *Assessment of Supervised Machine Learning for Atmospheric Retrieval of Exoplanets*. 2020, *MNRAS*, 496, 269

Co-author

8. Breza, B.; **Nixon, M. C.**; Kempton, E. M.-R. *Not All Sub-Neptune Exoplanets Have Magma Oceans*. 2025, *ApJ Letters*, 993, L46
9. Davenport, B., Kempton, E. M.-R., **Nixon, M. C.** et al. *TOI-421 b: A Hot Sub-Neptune with a Haze-free, Low Mean Molecular Weight Atmosphere*. 2025, *ApJ Letters*, 984, L44
10. Challener, R. C.; Weiner Mansfield, M. et al. (including **Nixon, M. C.**). *Horizontal and vertical exoplanet thermal structure from a JWST spectroscopic eclipse map*. 2025, *Nature Astronomy*, 9, 1821
11. Brady, M. et al. (including **Nixon, M. C.**). *An Earth-like Density for the Temperate Earth-sized Planet GJ 12 b*. *AJ*, 170, 335
12. Zhang, M. et al. (including **Nixon, M. C.**). *A carbon-rich atmosphere on a windy pulsar planet*. *ApJ Letters*, 995, L64
13. Rotman, Y. et al. (including **Nixon, M. C.**). *Enabling Robust Exoplanet Atmospheric Retrievals with Gaussian Processes*. 2025, *ApJ*, 989, 201
14. Steinrueck, M. et al. (including **Nixon, M. C.**). *The Radiative Effects of Photochemical Hazes on the Atmospheric Circulation and Phase Curves of Sub-Neptunes*. 2025, *ApJ*, 985, 98
15. Masuda, K. et al. (including **Nixon, M. C.**). *A Fourth Planet in the Kepler-51 System Revealed by Transit Timing Variations*. 2024, *AJ*, 198, 294
16. Fu, G. et al. (including **Nixon, M. C.**). *Hydrogen sulfide and metal-enriched atmosphere for a Jupiter-mass exoplanet*. 2024, *Nature*, 632, 752
17. Carter, A. L et al. (including **Nixon, M. C.**). *A benchmark JWST near-infrared spectrum for the exoplanet WASP-39 b*. 2024, *Nature Astronomy*, 8, 1008
18. Yang, J. et al. (including **Nixon, M. C.**). *Simultaneous retrieval of orbital phase resolved JWST/MIRI emission spectra of the hot Jupiter WASP-43 b: evidence of water, ammonia, and carbon monoxide*. 2024, *MNRAS*, 532, 460

19. Flagg, L. et al. (including **Nixon, M. C.**). *Debris Disks Can Contaminate Mid-infrared Exoplanet Spectra: Evidence for a Circumstellar Debris Disk around Exoplanet Host WASP-39*. 2024, ApJ Letters, 969, 19
20. Hammond, M. et al. (including **Nixon, M. C.**). *Two-dimensional Eclipse Mapping of the Hot-Jupiter WASP-43 b with JWST MIRI/LRS*. 2024, AJ, 168, 4
21. Bell, T. J. et al. (including **Nixon, M. C.**). *Nightside clouds and disequilibrium chemistry on the hot Jupiter WASP-43 b*. 2024, Nature Astronomy, 8, 879
22. Powell, D. et al. (including **Nixon, M. C.**). *Sulfur dioxide in the mid-infrared transmission spectrum of WASP-39 b*. 2024, Nature, 626, 979
23. Esparza-Borges, E. et al. (including **Nixon, M. C.**). *Detection of Carbon Monoxide in the Atmosphere of WASP-39 b Applying Standard Cross-correlation Techniques to JWST NIRSpec G395H Data*. 2023, ApJ Letters, 955, 19
24. Coulombe, L.-P. et al. (including **Nixon, M. C.**). *A broadband thermal emission spectrum of the ultra-hot Jupiter WASP-18 b*. 2023, Nature, 620, 292
25. Kempton, E. M.-R. et al. (including **Nixon, M. C.**). *A reflective, metal-rich atmosphere for GJ 1214 b from its JWST phase curve*. 2023, Nature, 620, 67
26. Gao, P.; Piette, A. A. A.; Steinrueck, M. E.; **Nixon, M. C.** et al. *The Hazy and Metal-Rich Atmosphere of GJ 1214 b Constrained by Near- and Mid-infrared Transmission Spectroscopy*. 2023, ApJ, 951, 96
27. Feinstein, A. D. et al. (including **Nixon, M. C.**). *Early Release Science of the exoplanet WASP-39 b with JWST NIRISS*. 2023, Nature, 614, 670
28. JWST Transiting Exoplanet Community Early Release Science Team et al. (including **Nixon, M. C.**). *Identification of carbon dioxide in an exoplanet atmosphere*. 2023, Nature, 614, 649
29. Luque, R.; Nowak, G.; Hirano, T.; Kossakowski, D.; Pallé, E.; **Nixon, M. C.** et al. *Precise mass determination for the keystone sub-Neptune planet transiting the mid-type M dwarf G 9-40*. 2022, A&A, 666, 154
30. Luque, R.; Serrano, L. M.; Molaverdikhani, K.; **Nixon, M. C.** et al. *A planetary system with two transiting mini-Neptunes near the radius valley transition around the bright M dwarf TOI-776*. 2021, A&A, 645, 41
31. von Essen, C.; Mallonn, M.; Hermansen, S.; **Nixon, M. C.** et al. *HST/STIS transmission spectrum of the ultra-hot Jupiter WASP-76 b confirms the presence of sodium in its atmosphere*. 2020, A&A, 637, 76
32. Madhusudhan, N.; **Nixon, M. C.**; Welbanks, L.; Piette, A. A. A.; Booth, R. A. *The Interior and Atmosphere of the Habitable-zone Exoplanet K2-18 b*. 2020, ApJ Letters, 891, L7

Submitted

33. **Nixon, M. C.**; Basant, R.; Luque, R. et al. *Leave-one-out Cross-validation Techniques for Radial Velocity Analysis*. AAS Journals, submitted

34. Ih, J. et al. (including **Nixon, M. C.**). *Do Rocky Planets around M Stars Have Atmospheres? A Statistical Approach to the Cosmic Shoreline*. AAS Journals, submitted, arXiv:2508.08253