

DR. MUNAZZA K. ALAM

Space Telescope Science Institute, 3700 San Martin Drive, Baltimore, MD 21218
malam@stsci.edu ◊ +1 917-829-1410 ◊ <https://munazzaalam.github.io>

RESEARCH INTERESTS

Observations of exoplanet atmospheres, protoplanetary disk modeling, planet formation and evolution

EMPLOYMENT

Space Telescope Science Institute, Assistant Astronomer 2023–
Carnegie Earth & Planets Laboratory, Carnegie EPL Postdoctoral Fellow 2021–2023
Harvard University, Postdoctoral Researcher 2021

EDUCATION

Harvard University 2016–2021
Ph.D., Astronomy and Astrophysics
Thesis: “Characterizing Distant Worlds: Atmospheric Reconnaissance of Giant Planets with *Hubble*”
A.M. (2018), Astronomy and Astrophysics
Macaulay Honors College at Hunter College, City University of New York (CUNY) 2012–2016
B.A., Physics and Astronomy – *Summa Cum Laude (Salutatorian)*

FELLOWSHIPS & GRANTS

Kavli Frontiers of Science Fellow, US National Academy of Sciences 2023–
National Geographic Young Explorers Grant 2015–
NSF Graduate Research Fellowship 2017–2020
John P. and Carol J. Merrill Graduate Fellowship, Harvard University 2017
Judith and Stanley Zabar Graduate Scholarship, Hunter College 2016
John P. McNulty Scholarship, Hunter College 2014–2016
CUNY Macaulay Honors College full merit scholarship, Hunter College 2012–2016

SELECTED HONORS & AWARDS

Selected for the **Explorers Club’s Explorers 50: Fifty People Changing the World that the World Needs Know About**, Class of 2024 2024
Keck Principal Investigator Data Award, NExSci for NASA 2020, 2022
Rodger Doxsey Travel Prize, AAS 237th Meeting 2021
Nominated as one of the **40 Women to Watch in 2019**, The Tempest 2019
Derek Bok Center Certificate of Distinction in Teaching, Harvard University 2017, 2018
Awarded for teaching SPU 30 (Life as a Planetary Phenomenon), Spring 2017
Awarded for teaching AY 16 (Stellar & Planetary Astronomy), Spring 2018
Best Poster Award, IAC Winter School of Radiative Transfer in Stellar & Planetary Atmospheres 2017
Joseph A. Gillet Memorial Prize, Hunter College 2016
Award Citation: “*awarded to a member of the senior class who has, in the opinion of the department, the most thorough knowledge of general physics*”
Rosalyn S. Yalow Award, Hunter College 2016
Award Citation: “*presented to one of Hunter’s finest science students*”

SELECTED OBSERVING PROPOSALS (AS PI)

Mining Metals: Constraining the Abundances of Refractory Species in Ultra-hot Jupiters, Magellan/MIKE 2023A semester, 2 nights, **PI: Alam**, Co-Is: Teske, Hoeijmakers, Welbanks, Line, Öberg
Mining Metals: Connecting the Refractory Abundances in Ultra-hot Jupiters to Formation Location, Magellan/MIKE 2022B semester, 3 nights, **PI: Alam**, Co-Is: Teske, Hoeijmakers, Welbanks, Line
A Helium Search in Planets on the Edges of the Hot Neptune Desert and Warm Neptune Savana, Keck/NIRSPEC

- 2022B semester, 2 nights, **PI: Alam**, Co-Is: Bourrier, Kirk, dos Santos, Allart, López-Morales, Ehrenreich, Seidel, Attia, Jaziri, Guilluy, Dethier
- A Sharper Look: Observing a Clear Atmosphere Exoplanet Simultaneously at Low & High Spectral Resolution*, Magellan/MIKE + Magellan/IMACS 2021B semester, 1 night, **PI: Alam**, Co-Is: Teske, Gao
- Probing Atmospheric Escape in Young Transiting Exoplanets*, Keck II/NIRSPEC 2020B semester, 1.5 nights, **PI: Alam**, Co-Is: dos Santos, Kirk, López-Morales, Ehrenreich, Bourrier, Allart, Siedel, Lovis, Livingston, King, Oklopčić, Zhou
- Investigating Giant Planet Origins with Elemental Abundances of Stellar Hosts*, Keck I/HIRES 2020A semester, 0.25 nights, **PI: Alam**, Co-I: López-Morales
- Investigating Giant Planet Origins: Stellar Host Elemental Abundances*, Magellan/MIKE 2019A, 2020A, & 2020B semesters, 6.5 nights, **PI: Alam**, Co-Is: López-Morales, Buchhave

SELECTED INVITED TALKS

- | | |
|---|-----------|
| Pennsylvania State University , <i>Characterizing the Atmospheres of Sub-Neptune Exoplanets</i> | Feb 2024 |
| Wesleyan University , <i>Exploring Exoplanet Atmospheres with HST & JWST</i> | Feb 2024 |
| Bard College , <i>Exploring Exoplanet Atmospheres with HST & JWST</i> | Nov 2023 |
| Kavli Frontiers of Science , <i>Astrobiology in the Era of JWST</i> | Mar 2023 |
| University of Maryland , <i>A Simple Static Disk Condensation Model to Connect Refractory Abundances in Ultra-hot Jupiters with Formation Location</i> | Feb 2023 |
| 241st AAS Meeting , <i>JWST Transiting Exoplanet Early Release Science: A Transmission Spectrum of WASP-39b with NIRSpec G395H</i> | Jan 2023 |
| Johns Hopkins University , <i>Mining Metals: Connecting Refractory Abundances in Ultra-hot Jupiter to Formation Location</i> | Nov 2022 |
| University of Pennsylvania , <i>Characterizing Exoplanets with HST and JWST</i> | Sept 2022 |
| Geological Society of Washington , <i>Exotic Exoplanets and How to Find Them</i> | May 2022 |
| American University , <i>Exoplanet Exploration with Hubble</i> | Feb 2022 |
| NASA ExoExplorers , <i>The First Near-Infrared Transmission Spectrum of HIP 41378f, a Low-Mass Temperate Jovian World in a Multi-Planet System</i> | Jan 2022 |
| Carnegie EPL , <i>A NIR Transmission Spectrum for HIP 41378f</i> | Dec 2021 |
| University of Windsor , <i>Exotic Exoplanets and How to Find Them</i> | Nov 2021 |
| American University , <i>Exotic Exoplanets and How to Find Them</i> | Oct 2021 |
| Oberlin College , <i>Characterizing Exoplanet Atmospheres with Hubble</i> | Oct 2021 |
| University of Michigan , <i>A Cloud-Free Atmosphere for WASP-62b</i> | Oct 2020 |
| NASA Jet Propulsion Laboratory , <i>A Clear Atmosphere for WASP-62b, the Only Known Gas Giant in the JWST Continuous Viewing Zone</i> | Sept 2020 |
| UC Berkeley & UCLA , <i>Characterizing Giant Planet Atmospheres with Hubble</i> | Sept 2020 |
| University of Chicago , <i>Characterizing Giant Planet Atmospheres with Hubble and Large Ground-based Telescopes</i> | Aug 2020 |
| University of Exeter , <i>Characterizing Giant Planet Atmospheres with HST</i> | Aug 2020 |
| University of Hawaii Institute for Astrophysics , <i>Characterizing Giant Planet Atmospheres</i> | Feb 2020 |
| Seminar Columbia University , <i>The HST PanCET Program: Characterizing the Atmospheres of Inflated Hot Jupiters</i> | Apr 2019 |
| Geneva Observatory , <i>Precise Optical Transmission Spectra for a Hot Jupiter and a Nearby Super-Earth</i> | Sept 2018 |
| Pontificia Universidad Católica , <i>An Optical Transmission Spectrum for WASP-52b</i> | Aug 2018 |
| Smithsonian Board of Regents Meeting , <i>Through the Looking Glass: Next Generation Telescopes and the Future of Astronomy</i> | Apr 2018 |

SELECTED CONTRIBUTED TALKS

- | | |
|--|-----------|
| Conference Exoplanets V , <i>Early Results from the JWST COMPASS Program</i> | June 2024 |
| Conference From Clouds to Planets II , <i>Mining Metals: Connecting Refractory Abundances in Ultra-hot Jupiters to Formation Location</i> | Oct 2022 |
| Talk Exo-Webb Summer Series , <i>Evidence of a Clear Atmosphere for WASP-62b, the Only Known Transiting Gas Giant in the JWST Continuous Viewing Zone</i> | Jul 2020 |
| Conference Cloud Academy I , <i>An Optical Transmission Spectrum for WASP-52b</i> | Sept 2018 |
| Conference Exoplanets II , <i>An Optical Transmission Spectrum of the Inflated Hot Jupiter WASP-52b</i> | Jul 2018 |

Conference Keele University Transiting Exoplanets, *Characterizing HD 21934b, the Nearest Transiting Rocky Planet*

Jul 2017

SELECTED PUBLIC TALKS

Public talk Liberty Science Center, <i>Exploring Exoplanets with JWST</i>	Jul 2023
Public talk Sandy Spring Museum, <i>Finding Other Earths</i>	Dec 2022
Public talk Virginia Living Museum, <i>Weather on Other Worlds</i>	Apr 2021
Assembly speaker Nightingale-Bamford School, <i>My Journey as an Astronomer</i>	Jan 2020
Public talk National Geographic Explorer Nights, <i>Exploring the Universe</i>	Apr 2019
Public talk National Geographic Student Matinee, <i>Keep Looking Up: My Journey in Astronomy</i>	Mar 2019
Public talk CfA Observatory Night, <i>Weather on Other Worlds: Studying Exoplanet Atmospheres</i>	Feb 2019
Keynote speaker Virginia Association of Science Teachers, <i>Building Stronger Classrooms</i>	Nov 2018
Public talk Macaulay Honors College Professional Lunch Series, <i>My Path to Astronomy</i>	Oct 2018
Public talk National Geographic Young Explorers Grants Program Workshop at Yale University, <i>Brown Dwarfs: The Cool Neighbors</i>	Apr 2016

SELECTED MEDIA FEATURES

Podcast NPR The Takeaway, New Photos from JWST Bring Jupiter Into Focus	Aug 2022
Article Astrobit.es, Women’s History Month: Dr. Munazza Alam	Mar 2022
Book National Geographic Kids, <i>No Boundaries</i>	Feb 2022
Book Millbrook Press, <i>Who is a Scientist?</i>	Oct 2021
Magazine <i>Harvard Gazette</i> , Quick, hand me my worm pick	Sept 2021
Magazine <i>Eos</i> , Munazza Alam: Searching for New Worlds	Sept 2021
Magazine <i>Smithsonian Magazine</i> , The Five Big Ways JWST Will Help Astronomers Understand the Universe	Aug 2021
Podcast <i>HMSC Science Connects!</i> , Pondering Distant Suns	Jun 2020
Book National Geographic Kids, <i>Absolute Expert: Space!</i>	Jun 2020
Magazine <i>National Geographic</i> , “Women: A Century of Change”	Mar 2020
Radio show RMWorldTravel with Robert & Mary Carey and Rudy Maxa	Aug 2019
Podcast KPCC Radio, Tell Them, I Am (Episode 20)	May 2019
Magazine <i>National Geographic Kids</i> , “Dare to Explore”	Mar 2019
Video Explorer Academy: The Truth Behind	Oct 2018
Television CUNY TV Study with the Best (Culture and Identity)	May 2018
Book <i>National Geographic Kids</i> Solve This! : Wild & Wacky Challenges for the Genius Engineer in You	Mar 2018
Book <i>National Geographic Kids</i> Explorer Almanac 2019	May 2018
Article <i>National Geographic</i> , Woman of Impact in Science , Meet Munazza Alam: the woman searching for planet Earth’s twin	Mar 2018
Article <i>National Geographic</i> , Finding Clarity in the Stars	Oct 2016

SELECTED OUTREACH & SERVICE

SOC Building Bridges Across Planetary-Related Sciences II	2023
Organizer Carnegie EPL Astronomy Seminar	2022
Referee ApJ, AJ, Nature	2019–
Subject-matter expert reviewer NASA peer review	2022
Postdoc representative Carnegie EPL Library Committee	2021
Graduate student representative CfA Director Search Committee	2021
Student representative Harvard Graduate Admissions Committee	2021
Committee member Center for Astrophysics Harvard & Smithsonian APS-IDEA	2020–2021
Coordinator Harvard Astronomy Peer Mentoring Program	2019–2021
Reviewer <i>Hubble Space Telescope</i> Proposal Review Committee, Cycles 26, 27, & 31	2019–2024
Co-founder Open Labs at Harvard	2016–2019

PUBLICATIONS

57 refereed or submitted papers, 9 first and second author (via [NASA ADS](#)).

FIRST & SECOND AUTHOR PUBLICATIONS

9. **Alam, M.K.**, Gao, P., Adams Redai, J., Wallack, N., Wogan, N.F., Aguichine, A., Dattilo, A., Alderson, L., Batalha, N.E., Batalha, N.M., Kirk, J., López-Morales, M., Meech, A., Moran, S.E., Teske, J., Wakeford, H.R., Wolfgang, A. *JWST COMPASS: The first near- to mid-infrared transmission spectrum of the hot super-Earth L 168-9b*, accepted to The Astronomical Journal (2024), arXiv DOI: 2411.03154.
8. **Alam, M.K.**, Kirk, J., Dos Santos, L.A., McCreery, P., Allan, A.P., Owen, J.E., Vidotto, A.A., Allart, R., Bourrier, V., King, G.W., López-Morales, M., Seidel, J.V. *Non-Detections of Helium in the Young Sub-Jovian Planets K2-100b, HD 63433b, & V1298 Tau c*, The Astronomical Journal, 168, 102, pp.1-18 (2024).
7. Dos Santos, L.A., **Alam, M.K.**, Espinoza, N., Visaapragada, S., *Observing atmospheric escape in sub-Jovian worlds with JWST*, The Astronomical Journal, 165, 6, pp.244-252 (2023).
6. **Alam, M.K.**, Kirk, J., Dressing, C.D., López-Morales, M., Ohno, K., Gao, P., Akinsanmi, B., Santerne, A., Grouffal, S., Adibekyan, V., Barros, S.C.C., Buchhave, L., Crossfield, I.J.M., Dai, F., Deleuil, M., Giacalone, S., Lillo-Box, J., Marley, M., Mayo, A.W., Mortier, A., Santos, N.C., Sousa, S.G., Turtelboom, E.V., Wheatley, P.J., Vanderburg, A.M. *The First Near-Infrared Transmission Spectrum of HIP 41378f, a Low-Mass Temperate Jovian World in a Multi-Planet System*, The Astrophysical Journal Letters, 927, 1, pp.L5-L14 (2022).
5. **Alam, M.K.**, López-Morales, M., MacDonald, R., Nikolov, N., Kirk, J., Goyal, J., Sing, D.K., Wakeford, H.R., Rathcke, A.D., Deming, D.L., Sanz-Forcada, J., Lewis, N.K., Barstow, J.K., Mikal-Evans, T., Buchhave, L.A. *Evidence of a Clear atmosphere for WASP-62b, the Only Transiting Giant Planet in the JWST Continuous Viewing Zone*, The Astrophysical Journal Letters, 906, 2, pp.L10-L20 (2021).
4. **Alam, M.K.**, López-Morales, M., Nikolov, N., Sing, D.K., Henry, G.W., Baxter, C., Désert, J.M., Barstow, J.K., Mikal-Evans, T., Bourrier, V., Lavvas, P., Wakeford, H.R., Williamson, M.H., Sanz-Forcada, J., Buchhave, L., Cohen, O., García Muñoz, A. *The HST PanCET Program: An Optical to Infrared Transmission Spectrum of HAT-P-32Ab*, The Astronomical Journal, 160, 1, pp.51-70 (2020).
3. Kirk, J., **Alam, M.K.**, López-Morales, M., Zeng, Li. *Confirmation of WASP-107b's extended Helium atmosphere with Keck II/NIRSPEC*, The Astronomical Journal, 159, 3, pp.115-124 (2020).
2. **Alam, M.K.**, Nikolov, N., López-Morales, M., Sing, D.K., Goyal, J., Henry, G.W., Sanz-Forcada, J., Williamson, M.H., Evans, T.M., Wakeford, H.R., Bruno, G., Ballester, G.E., Stevenson, K.B., Lewis, N.K., Barstow, J.K., Bourrier, V., Buchhave, L.A., Ehrenreich, D., García Muñoz, A. *The HST PanCET Program: Detection of Na I & A Cloudy Atmosphere for the Inflated Hot Jupiter WASP-52b*, The Astronomical Journal, 156, 6, pp. 298-323 (2018).
1. Riedel, A.R., **Alam, M.K.**, Rice, E.L., Cruz, K.L., & Henry, T.J. *Young Stars with SALT*, The Astrophysical Journal, 840, 2, pp.87-106 (2017).

THIRD+ AUTHOR PUBLICATIONS

50. Ramos-Rosado, L., (**Alam, M.K.**). *HST SHEL: Revealing Haze and Confirming Elevated Metallicity in the Warm Neptune HAT-P-26b*, submitted to The Astronomical Journal (2024).
49. Alderson, L. et al. (**Alam, M.K.**). *JWST COMPASS: NIRSpec/G395H Transmission Observations of the Super-Earth TOI-776b*, accepted to The Astronomical Journal (2024).
48. Gascon, C. et al. (**Alam, M.K.**). *The HUSTLE Program: The UV to Near-IR Transmission Spectrum of the Hot Jupiter KELT-7b*, submitted to The Astronomical Journal (2024).
47. Teske, J.K. et al. (**Alam, M.K.**). *JWST COMPASS: NIRSpec/G395H Transmission Observations of the M Dwarf Radius Valley Planet TOI-776 c*, submitted to The Astronomical Journal (2024).
46. Ashtari, R., et al. (**Alam, M.K.**). *Sculpting Hubble's Exoplanet Legacy: Insights Towards Aerosol Formation in Exoplanets Using An AI-based Survey of Exoplanet Atmospheres*, accepted to The Astronomical Journal (2024).
45. Scarsdale, N., et al. (**Alam, M.K.**). *JWST COMPASS: The 3-5 Micron Transmission Spectrum of the Super-Earth L 98-59 c*, accepted to The Astronomical Journal (2024).

44. Boehm, V.A., Lewis, N.K., Fairman, C.E., Moran, S.E., Gascón, C., Wakeford, H.R., **Alam, M.K.**, Alderson, L., Barstow, J., Batalha, N.E., Grant, G., López-Morales, M., MacDonald, R.J., Ohno, K. *The HUSTLE Program: The UV to Near-Infrared HST WFC3/UVIS G280 Transmission Spectrum of WASP-127b*, accepted to The Astronomical Journal (2024), arXiv DOI: 2410.17368.
43. Bell, T.J., et al. (including **Alam, M.K.**) *Nightside clouds and disequilibrium chemistry on the hot Jupiter WASP-43b*, Nature Astronomy, 8, pp.879–898 (2024).
42. Allen, N., et al. (including **Alam, M.K.**) *HST SHEL: Enabling Comparative Exoplanetology with HST/STIS*, submitted to AJ (2023).
41. Wallack, N., Batalha, N.E., Alderson, L., Scarsdale, N., Adams Redai, J.I., Aguichine, A., **Alam, M.K.**, Gao, P., Wolfgang, A., Batalha, N.M., Kirk, J., López-Morales, M., Moran, S.E., Teske, J., Wakeford, H.R., Wogan, N.F. *JWST COMPASS: Investigating the Atmosphere of the Sub-Neptune TOI-836c*, The Astronomical Journal, arXiv DOI: 2404.01264 (2024).
40. Alderson, L., Batalha, N.E., Wakeford, H.R., Wallack, N., Aguichine, A., Teske, J., Adams Redai, J., **Alam, M.K.**, Batalha, N.M., Gao, P., Kirk, J., López-Morales, M., Moran, S.E., Scarsdale, N., Wogan, N.F., Wolfgang, A. *JWST COMPASS: NIRSpec/G395H Transmission Observations of the Super-Earth TOI-836b*, The Astrophysical Journal, 167, 5, 215. pp.1-14 (2024).
39. May, E.M., MacDonald, R., Bennett, K.A., Moran, S.E., Wakeford, H.R., Peacock, S., Lustig-Yaeger, J., Highland, A.N., Stevenson, K.B., Sing, D.K., Mayorga, L.C., Batalha, N.E., Kirk, J., López-Morales, M., Valenti, J.A., **Alam, M.K.**, Alderson, L., Fu, G., Gonzalez-Quiles, J., Lothringer, J.D., Rustamkulov, Z., Sotzen, K. *Double Trouble: Two Transits of Super-Earth GJ 1132 b Observed with JWST NIRSpec G395H*, The Astrophysical Journal Letters, 959, 1, L19, pp.1-17 (2023).
38. Powell, D., Feinstein, A.D., Lee, E.K.H., et al. (including **Alam, M.K.**) *Detection of SO₂ in the Mid-Infrared Transmission Spectrum of WASP-39b*, Nature, 626, 8001, pp.979-983 (2024).
37. Esparza-Borges, E., López-Morales, M., Adams Redai, J.I, et al. (including **Alam, M.K.**), *Detection of Carbon Monoxide in the Atmosphere of WASP-39b Applying Standard Cross-Correlation Techniques to JWST NIRSpec G395H Data*, accepted to The Astronomical Journal (2023), arXiv DOI: 2309.00036.
36. McGruder, C.D., López-Morales, M., Kirk, J., Rackham, B.V., May, E., Ahrer, E.-M., King, G.W., **Alam, M.K.**, Allen, N.H., Ortiz-Ceballos, K., Espinoza, N., Gardner, T., Jordán, A., Meyer, K., Monnier, J.D., Osip, D.J., Wheatley, P.J. *ACCESS, LRG-BEASTS, & MOPSS: Featureless Optical Transmission Spectra of WASP-25b and WASP-124b*, The Astronomical Journal, 166, 3, pp.120-141 (2023).
35. Dos Santos, L.A., García Muñoz, A., Sing, D.K., López-Morales, M., **Alam, M.K.**, Bourrier, V., Ehrenreich, D., Henry, G.W., Lecavelier des Etangs, A., Nikolov, N.K., Sanz-Forcada, J., Wakeford, H.W. *Hydrodynamic atmospheric escape in HD 189733 b: Signatures of carbon and variable hydrogen measured with the Hubble Space Telescope*, The Astronomical Journal, 166, 3, pp.89-107 (2023).
34. Harada, C., Dressing, C.D., **Alam, M.K.**, Kirk, J., López-Morales, M., Ohno, K., Akinsanme, B., Barros, S., Buchhave, L., Collier Cameron, A., Crossfield, I., Dai, F., Gao, P., Giacalone, S., Grouffal, S., Lillo-Box, J., Mayo, A., Mortier, A., Santerne, A., Santos, N., Santos, S., Turtelboom, E., Vanderburg, A., Wheatley, P. *Stability and detectability of exomoons orbiting HIP 41378 f, a temperate Jovian planet with an anomalously low apparent density*, The Astronomical Journal, 166, 5, pp.208-230 (2023).
33. Moran, S.E., Stevenson, K.B, Sing, D.K., MacDonald, R.J., Kirk, J., Lustig-Yaeger, J., Peacock, S., Mayorga, L.C., Bennett, K.A., López-Morales, M., May, E.M., Rustamkulov, Z., Valenti, J.A., Adams Redai, J.I., **Alam, M.K.**, Batalha, N.E., Fu, G., Gonzalez-Quiles, J., Highland, A.N., Kruse, E., Lothringer, J.D., Ortiz Ceballos, K.N., Sotzen, K.S., Wakeford, H.R. *High Tide or Rip-Tide on the Cosmic Shoreline? A Water-Rich Atmosphere or Stellar Contamination for the Warm Super-Earth GJ 486b from JWST Observations*, The Astrophysical Journal Letters, 948, L11, pp.1-14 (2023).
32. Coulomb, L.-P., Benneke, B., et al. (including **Alam, M.K.**), *A broadband thermal emission spectrum of the ultra-hot Jupiter WASP-18b*, Nature, 620, 7973, p.292-298 (2023).
31. Lustig-Yaeger, J., Fu, G., May, E.M., Ortiz Ceballos, K. N., Moran, S.E., Peacock, S., Stevenson, K.B., López-Morales, M., MacDonald, R.J., Mayorga, L.C., Sing, D.K., Sotzen, K.S., Valenti, J.A., Adams, J., **Alam, M.K.**, Batalha, N.E., Bennett, K.A., Gonzalez-Quiles, J., Kirk, J., Kruse, E. , Lothringer, J.D. ;

- Rustamkulov, Z., Wakeford, H.R. *A JWST transmission spectrum of a nearby Earth-sized exoplanet*, Nature Astronomy, 7, pp.1317-1328 (2023).
30. Grant, D.G., Wakeford, H.W., Lothringer, J.D., **Alam, M.K.**, et al. *Detection of carbon monoxide's fundamental band structure in WASP-39b's atmosphere with JWST*, The Astrophysical Journal Letters, 949, 1, L15, pp.1-8 (2023).
 29. Tsai, S., Lee, E.K.H., et al. (including **Alam, M.K.**), *Direct Evidence of Photochemistry in an Exoplanet Atmosphere*, Nature, 617, 7961, pp.483-487 (2023).
 28. Ahrer, E.-M., Stevenson, K.B., et al., (including **Alam, M.K.**), *Early Release Science of the exoplanet WASP-39b with JWST NIRCam*, Nature, 614, 7949, pp.653-658 (2023).
 27. Feinstein, A., Radica, M., et al., (including **Alam, M.K.**), *JWST Early Release Science: Exoplanet transit spectroscopy with NIRISS-SOSS*, Nature, 614, 7949, pp.670-675 (2023).
 26. Alderson, L., Wakeford, H.W., **Alam, M.K.**, et al. *JWST Early Release Science: Exoplanet Transit Spectroscopy with NIRSpec G395H*, Nature, 614, 7949, pp.664-669 (2023).
 25. Rustamkulov, Z., Sing, D.K. et al., (including **Alam, M.K.**), *The Broadband Transmission Spectrum of WASP-39b from JWST NIRSpec PRISM Observations*, Nature, 614, 7949, pp.659-663 (2023).
 24. JWST Transiting Exoplanet Community Early Release Science Team (**including Alam, M.K.**), *Identification of carbon dioxide in an exoplanet atmosphere*, Nature, 614, 7949, pp.649-652 (2023).
 23. Ratchke, A.D., Buchhave, L.A., Mendonça, J.M., Sing, D.K., López-Morales, M., **Alam, M.K.**, Henry, G.W., Nikolov, N.K., García Muñoz, A., Mikal-Evans, T., Wakeford, H.R., Dos Santos, L.A. *HST PanCET Program: A Flat Optical Transmission Spectrum for the Hot Jupiter WASP-101b*, MNRAS, 522, 1, pp.582–594 (2023).
 22. Gressier, A., Lecavelier des Etangs, A., Sing, D.K., López-Morales, M., **Alam, M.K.**, Barstow, J.K., Bourrier, V., Dos Santos, L.A., García Muñoz, A., Lothringer, J.D., Nikolov, N.K., Sotzen, K., Henry, G.W., Mikal-Evans, T. *The Hubble PanCET Program: The near-UV transmission spectrum of WASP-79b*, Astronomy & Astrophysics, 672, A34, pp.1-14 (2023).
 21. Batalha, N.E., Wolfgang, A., Teske, J., **Alam, M.K.**, Alderson, L., Batalha, N.M., López-Morales, M., Wakeford, H.R. *The Importance of Accounting for Sample Selection in Exoplanet Atmosphere Population Studies*, The Astronomical Journal, 165, 1, pp.1-12 (2023).
 20. Weaver, I.C., Osip, D., López-Morales, M., Diamond-Lowe, H., Espinoza, N., Rackham, B., **Alam, M.K.**, Allen, N., Apai, D., Berta-Thompson, Z., Ceballos, K., Jordán, A., Kirk, J., Lewis, N.K., McGruder, C.D. *ACCESS: An optical transmission spectrum of the high-gravity, hot Jupiter WASP-50b*, submitted to The Astronomical Journal (2022).
 19. McGruder, C.D., López-Morales, M., Kirk, J., Espinoza, N., Rackham, B.V., **Alam, M.K.**, Allen, N., Nikolov, N., Weaver, I.C., Ortiz Ceballos, K., Osip, D.J., Apai, D., Jordán, A., Fortney, J.J. *ACCESS: Confirmation of a Clear Atmosphere for WASP-96b and a Comparison of Light Curve Detrending Techniques*, The Astronomical Journal, 164, 4, pp.134-170 (2022).
 18. Kirk, J., Dos Santos, L.A., López-Morales, M., **Alam, M.K.**, Oklopčić, A., MacLeod, M., Zeng, L., Zhou, G. *A Keck/NIRSPEC detection and non-detection of He I in the atmosphere of two inflated hot Jupiters orbiting K dwarfs: WASP-52b and WASP-177b*, The Astronomical Journal, 164, 1, pp.24-38 (2022).
 17. Wong, I., Chachan, Y., Knutson, H.A., Henry, G.W., Adams, D., Kataria, T., Benneke, B., Gao, P., Deming, D., López-Morales, M., Sing, D.K., **Alam, M.K.**, Ballester, G.E., Barstow, J.K., Buchhave, L.A., Dos Santos, L.A., Fu, G., García Muñoz, A., MacDonald, R.J., Mikal-Evans, T., Sanz-Forcada, J., Wakeford, H.R. *The Hubble PanCET Program: A Featureless Transmission Spectrum for WASP-29b and Evidence of Enhanced Atmospheric Metallicity on WASP-80b*, The Astronomical Journal 164, 30, pp.1-26 (2022).
 16. Fu, G., Sing, D.K., Deming, D., Sheppard, K., Wakeford, H.R., Mikal-Evans, T., **Alam, M.K.**, Dos Santos, L.A., López-Morales, M. *The Hubble PanCET program: Emission spectrum of hot Jupiter HAT-P-41b*, The Astronomical Journal, 163, 4, pp.190-195 (2022).
 15. Dos Santos, L.A., Vidotto, A.A., Vissapragada, S., **Alam, M.K.**, Allart, R., Bourrier, V., Kirk, J., Siedel, J.V., Ehrenreich, D. **p – winds: an open source Python code to model planetary winds and upper atmospheres**, Astronomy & Astrophysics, 659, A62, pp.1-12 (2022).

14. Zeng, L., Jacobsen, S.B., Sasselov, D., Levi, A., Kirk, J., Damasso, M., Nava, C., Lacedelli, G., Piaulet, C., López-Morales, M., Petaev, M., **Alam, M.K.** *New Perspectives on Exoplanet Radius Gap from a Mathematica Tool and Visualized Water EOS*, The Astronomical Journal, 923, 2, pp.247-277 (2021).
13. Fu, G., Deming, D., May, E., Stevenson, K.B., Sing, D.K., Lothringer, J., Wakeford, H.R., Nikolov, N., Evans, T., Bourrier, V., Dos Santos, L., **Alam, M.K.**, Henry, G.W., García Muñoz, A., López-Morales, M. *The Hubble PanCET program: Transit and Eclipse Spectroscopy of the Hot Jupiter WASP-74b*, The Astronomical Journal, 162, 6, pp.271-294 (2021).
12. Rathcke, A.D., MacDonald, R.J., Barstow, J.K., Goyal, J.M., López-Morales, M., Mendonça, J.M., Sanz-Forcada, J., Henry, G.W., Sing, D.K., **Alam, M.K.**, Lewis, N.K., Chubb, K.L., Taylor, J., Nikolov, N., Buchhave, L.A. *HST PanCET Program: A Complete Near-UV to Infrared Transmission Spectrum for the Hot Jupiter WASP-79b*, The Astronomical Journal, 162, 4, pp.138-158 (2021).
11. Weaver, I.C., López-Morales, M., **Alam, M.K.**, Espinoza, N., Rackham, B.V., Goyal, J.M., MacDonald, R.J., Lewis, N.K., Apai, D., Bixel, A., Jordán, A., Kirk, J., McGruder, C.D., Osip, D.J. *ACCESS: An optical transmission spectrum of the high-gravity, hot Jupiter HAT-P-23b*, The Astronomical Journal, 161, 6, pp.279-301 (2021).
10. McGruder, C.D., López-Morales, M., Espinoza, N., Rackham, B.V., Apai, D., Jordán, A., Osip, D.J., **Alam, M.K.**, Bixel, A., Fortney, J.J., Henry, G.W., Kirk, J., Lewis, N.K., Rodler, F., Weaver, I.C. *ACCESS: Confirmation of no potassium in the atmosphere of WASP-31b*, The Astronomical Journal, 160, 5, pp.230-252 (2020).
9. Carter, A.L., Nikolov, N., Sing, D.K., **Alam, M.K.**, Goyal, J.M., Mikal-Evans, T., Wakeford, H.R., Henry, G.W., Morell, S., López-Morales, M., Smalley, B., Lavvas, P., Barstow, J.K., García Muñoz, A., Wilson, P.A., Gibson, N.P. *Detection of Na, K, and H₂O in the hazy atmosphere of WASP-6b*, Monthly Notices of the Royal Astronomical Society, 494, 4, pp.5449-5472 (2020).
8. Bruno, G., Lewis, N.K., **Alam, M.K.**, López-Morales, M., Wakeford, H.R., Barstow, J.K., Sing, D.K., Ballester, G.E., Bourrier, V., Buchhave, L.A., Cohen, O., Evans, T.M., García Muñoz, A., Lavvas, P., Sanz-Forcada, J. *WASP-52b. The effect of starspot correction on atmospheric retrievals*, Monthly Notices of the Royal Astronomical Society, 491, 4, pp.5361-5375 (2020).
7. Weaver, I., López-Morales, M., Espinoza, N., Rackham, B.V., Osip, D.J., Apai, D., Jordán, A., Bixel, A., Fortney, J.J., Lewis, N.K., **Alam, M.K.**, Kirk, J., McGruder, C., Rodler, F., Fienco, J. *ACCESS: An Optical to Near-infrared Spectrum of the Hot Jupiter WASP-43b with Evidence of H₂O, and Stellar Surface Heterogeneity, but no evidence of Na or K*, The Astronomical Journal, 159, 1, pp.13-34 (2020).
6. Helling, C., Iro, N., Corrales, L., Samra, D., Ohno, K., **Alam, M.K.**, Steinrueck, M., Lew, B., Molaverdikhani, K., MacDonald, R.J., Herbort, O., Woitke, P., Parmentier, V. *Understanding the atmospheric properties and chemical composition of the ultra-hot Jupiter HAT-P-7b. I. Cloud and chemistry mapping*, Astronomy & Astrophysics, 631, 1, pp.A79-A108 (2019).
5. Riedel, A.R., diTomasso, V., Rice, E.L., **Alam, M.K.**, Abrahams, E., Crook, J., Cruz, K.L., and Faherty, J.K. *Radial Velocities, Space Motions, and Nearby Young Moving Group Memberships of Eleven Candidate Young Brown Dwarfs*, The Astronomical Journal, 157, 6, pp.247-265 (2019).
4. Evans, T.M., Sing, D.K., Goyal, J., Nikolov, N., Marley, M.S., Zahnle, K., Henry, G.W., Barstow, J.K., **Alam, M.K.**, Sanz-Forcada, J., Kataria, T., Lewis, N.K., Lavvas, P., Ballester, G.E., Ben-Jaffel, L., Blumenthal, S.D., Bourrier, V., Drummond, B., García Muñoz, A., López-Morales, M., Tremblin, P., Ehrenreich, D., Wakeford, H.R., Buchhave, L.A., Lecavelier des Etangs, A., Hébrard, G., Williamson, M.H. *An Optical Transmission Spectrum for the ultra-hot Jupiter WASP-121b Measured with the Hubble Space Telescope*, The Astronomical Journal, 156, 6, pp.283-317 (2018).
3. Bean, J.L., Stevenson, K.B., Batalha, N.M., Berta-Thompson, Z., Kriedberg, L., et al. (**including Alam, M.K.**) *The Transiting Exoplanet Community Early Release Science Program for JWST*, Publications of the Astronomical Society of the Pacific, 130, 993, pp.114402-114422 (2018).
2. Bruno, G., Lewis, N.K., Stevenson, K.B., Filippazzo, J., Hill, M., Fraine, J.D., Wakeford, H.R., Deming, D., López-Morales, M., & **Alam, M.K.** *Starspot Occultations in Infrared Transit Spectroscopy? The Case of WASP-52b*, The Astronomical Journal, 156, 3, pp.124-138 (2018).

1. Gizis, J.E., Dettman, K. G., Burgasser, A. J., Camnasio, S, **Alam, M.K.**, Filippazzo, J.C., Cruz, K.L., Metchev, S., Berger, E., & Williams, P.K.G. *Kepler Monitoring of an L Dwarf II. Clouds with Multiyear Lifetimes*, The Astrophysical Journal, 813, 2, pp.104-114 (2015).

UNREFEREED MANUSCRIPTS

6. Rackham, Espinoza, et al., (**including Alam, M.K.**) *The Effect of Stellar Contamination on Space-based Transmission Spectroscopy*, NASA Exoplanet Exploration Program SAG21 Final Report (2022).
5. López-Morales, M. et al., (**including Alam, M.K.**) *Another Servicing Mission to Extend Hubble Space Telescope's Science past the Next Decade*, National Academy of Sciences Astro2020 Science White Paper (2019).
4. López-Morales, M. et al., (**including Alam, M.K.**) *Detecting Earth-like Biosignatures on Rocky Exoplanets around Nearby Stars with Ground-based Extremely Large Telescopes*, National Academy of Sciences Astro2020 Science White Paper (2019).
3. Plavchan, P., et al. (**including Alam, M.K.**) *"Exoplanet Science Strategy" and "Astrobiology Strategy for the Search for Life in the Universe"*, National Academy of Sciences Astro2020 Science White Paper (2019).
2. Fortney, J.J., et al. (**including Alam, M.K.**) *The Need for Laboratory Measurements and Ab Initio Studies to Aid Understanding of Exoplanetary Atmospheres*, National Academy of Sciences Astro2020 Science White Paper (2019).
1. **Alam, M.K.**, et al. *Photometric and Spectral Analysis of Blue and Red L Dwarfs*, Cool Stars 18 Conference Proceedings (2014).