CV — **Aishwarya Iyer (She/her/hers)**

aiyer13@asu.edu https://aishaiyer.github.io/

ACADEMIC EXPERIENCE

NASA Goddard Space Flight Center — Starting Nov 2023
NASA Postdoctoral Fellow for Pandora Small-Sat Mission

ARIZONA STATE UNIVERSITY — Aug 2017 – June 2023
Astrophysics, Doctor of Philosophy

CALIFORNIA STATE UNIVERSITY NORTHRIDGE — Aug 2015 – May 2017
Physics, Master of Science

UNIVERSITY OF CALIFORNIA, SAN DIEGO — Sept 2011 – June 2015
MAJOR : **Physics, Bachelor of Science**
MINOR: **Chemistry**

RESEARCH EXPERIENCE

- **NASA FINESST Fellow** — Aug 2021 – present
- **ASU**-School of Earth and Space Exploration Research Assistantship — Aug 2017– July 2021
  Advisor: Dr. Michael Line
  Committee: Dr. Patrick Young, Dr. Jennifer Patience, Dr. Evgenya Shkolnik
- **NASA-JPL** Year-round Internship Program (JPLYIP) — Feb 2015 – Jul 2017
  Primary Advisor: Dr. Mark Swain
  Co-Advisors: Dr. Gael Roudier and Dr. Robert Zellem
- **CALTECH** SURF Internship — June 2014 – Sept 2014
  Advisor: Dr. Mark Swain
- **UCSD** Department of Physics, Undergraduate Researcher — May 2013 – Dec 2014
  Advisor: Dr. Adam Burgasser
- **UCSD** Department of Chemistry, Undergraduate Researcher — May 2012 – Jan 2014
  Advisor: Dr. Mark Thiemens

SELECTED PRESENTATIONS

Invited Seminar talk at Harvard CfA	April, 2023
Invited Seminar at AMNH	April, 2023
Invited Seminar at Penn State CEHW	Feb 13, 2023
Invited Talk at UT Austin Stars and Planets Seminar	Oct 26, 2022
Invited Talk at University of Hawai'i Institute for Astronomy	Sept 12, 2022
Contributed Talk at Max Planck Institute of Astronomy	July 27, 2022
CHAMPS: Exoplanet Early Career Highlight contributed Talk	Jan 14, 2022
Contributed Talk at ESO Star-Planet Connection Workshop	Oct 25, 2021

MENTORSHIP / TEACHING EXPERIENCE

- Mentor for undergraduate student Laura Pang: Stellar XUV evolution with TYCHO hydrodynamic evolution code (Fall 2021-present)
- ASU SUNDIAL and ASU SPACE GRANT: Isabela Huckabee, Senior physics major (Fall 2019-present)
- Lecture on Nested Sampling, Statistics for Astrophysics Graduate Course, 2 semesters
- ASU SUNDIAL: Summer 2018, Summer 2019, Spring 2019, Fall 2019, Spring 2020, Fall2020

- Educo International Inc., Teaching Assistant –Applied Calculus for Business Majors, LAVC Spring 2011 and Los Angeles Community College District, Teaching Assistant – Intermediate Algebra Course, 2010

PRESS RELEASE

June 2014 – Sept 2014 May 2013 – Dec 2014 May 2012 – Jan 2014
NASA and JPL webpages, June 8, 2016: *Cloudy Days on Exoplanets May Hide Atmospheric Water* by Elizabeth Landau http://www.nasa.gov/feature/cloudy-days-on-exoplanets-may-hide-atmospheric- water

ACCEPTED TELESCOPE OBSERVATIONS

Mark Swain, Robert Zellem, **Aishwarya Iyer,** Pierre Drossart (Spring Semester June 2016)
Origin of Non-LTE Emission in HD 189733b, IRTF/SpeX proposal, **4 nights awarded**

ACADEMIC SERVICE

Referee review for ApJ, 2022-ongoing

BROADER IMPACTS

- **Telescope Manager**, ASU-SESE Open House Committee, Outreach Program
- **Access Network Fellow**, Access website management team, showcasing work produced by NSF Funded Access Networking University undergraduate mentoring sites
- **Sexual Harassment Prevention and Bystander Program**, ASU-SESE Facilitator for Inclusion workshops, Spring 2020-present
- **DEIJ Journal Club**, ASU SESE
- **ASU SESE Ask an Earth and Space Scientist Panel** to answer questions submitted by general public
- **ASU SESE Astro Journal Club Chair**
- **Co-founder and facilitator of Introduction to Cultural Astronomy** Workshop Series: Culturally sensitive curriculum development project for high-schoolers in India
- **NASA-JPL Exoplanet Science Initiative Art Exhibition**, Outreach and Organizing Team Spring, Summer 2016
  - Outreach Talks at La Cañada High School, Pasadena, CA
  - Encouraging Students to create artwork inspired by exoplanet science.

HONORS AND AWARDS

- **NASA FINESST Fellow**, ($90,000) 2021-2023
- **Access Network Fellow** ($1000), provided by National Science Foundation (NSF), managed by Center for Advancing Science/Mathematics Teaching, Learning, and Evaluation (CASTLE) at Rochester Institute of Technology Fa 2020/Sp 2021
- Michael McAllister The College of Liberal Arts and Sciences Early Start Scholarship Sundial Mentoring Program Fall 2020
- **Physics Department Scholarship** (Sundial Outreach program) Summer 2018, 2019
- **ASU SESE Summer Exploration Graduate Fellowship**, $8000 Summer 2019
- ASU GPSA Travel Grant amount: $950 Summer 2019
- **NASA-JPLYIP** Graduate Student Stipend Oct 2015 – Jul 2017
- **NASA-JPLYIP** Undergraduate Student Stipend Feb 2015 – Sept 2015
- **CALTECH SURF** Scholarship Award Summer 2014
- **APS FDP Scholar**/ UCSD Physics Department Travel Grant April 2014
- Los Angeles Valley College, Biology Department Scholarship Spring 2011
- Los Angeles Valley College, Evergreen Sustainability Award Fall 2011

- Los Angeles Valley College, Dean's list Fall 2008, Fall 2009, Fall/Spring 2010

FIRST AUTHOR PUBLICATIONS

Iyer, Aishwarya; et al. (2023) *The SPHINX M-dwarf Spectral Grid. I. Benchmarking New Model Atmospheres to Derive Fundamental M-Dwarf Properties*

Iyer, Aishwarya & Line, Michael (2020) *The Influence of Stellar Contamination on the Interpretation of Transmission Spectra of sub-Neptune Worlds around M-dwarfs, ApJ, 889:78, 14pp.*

Iyer, Aishwarya; et al. (2016) *A Characteristic Transmission Spectrum dominated by H_2O applies to a majority of HST/WFC3 Exoplanet Observations,* ApJ, 823:109, 5pp.

OTHER PUBLICATIONS

(1) Benjamin V. Rackham, Néstor Espinoza, Svetlana V. Berdyugina, Heidi Korhonen, Ryan J. MacDonald, Benjamin T. Montet, Brett M. Morris, Mahmoudreza Oshagh, Alexander I. Shapiro, Yvonne C. Unruh, Elisa V. Quintana, Robert T. Zellem, Dániel Apai, Thomas Barclay, Joanna K. Barstow, Giovanni Bruno, Ludmila Carone, Sarah L. Casewell, Heather M. Cegla, Serena Criscuoli, Catherine Fischer, Damien Fournier, Mark S. Giampapa, Helen Giles, **Aishwarya Iyer**, et al "Final Report for SAG 21: The Effect of Stellar Contamination on Space-based Transmission Spectroscopy." *arXiv preprint arXiv:2201.09905* (2022): https://arxiv.org/abs/2201.09905

(2) Ehsan Gharib-Nezhad, **Aishwarya R. Iyer**, et al. "EXOPLINES: molecular absorption cross-section database for brown dwarf and giant exoplanet atmospheres." *The Astrophysical Journal Supplement Series* 254.2 (2021): 34.: https://iopscience.iop.org/article/10.3847/1538-4365/abf504

(3) John W Chapman, Robert T Zellem, Michael R Line, Gautam Vasisht, Geoff Bryden, Karen Willacy, **Aishwarya R Iyer**, et al.: "Quantifying the impact of spectral coverage on the retrieval of molecular abundances from exoplanet transmission spectra." *Publications of the Astronomical Society of the Pacific* 129.980 (2017): 104402.: https://arxiv.org/pdf/1705.05468.pdf

(4) Robert T Zellem, Mark R Swain, Gael Roudier, Evgenya L Shkolnik, Michelle J Creech-Eakman, David R Ciardi, Michael R Line, **Aishwarya R Iyer**, et al., "Forecasting the impact of stellar activity on transiting exoplanet spectra." *The Astrophysical Journal* 844.1 (2017): 27.: https://iopscience.iop.org/article/10.3847/1538-4357/aa79f5/pdf

REFERENCES

(1) Dr. Michael Line: Ph.D Supervisor (mrline@asu.edu)
(2) Dr. Jonathan Fortney, collaborator (jfortney@ucsc.edu)
(3) Dr. Philip Muirhead, collaborator (philipm@bu.edu)
(4) Dr. Mark Swain M.S committee advisor and group supervisor at NASA JPL (mark.r.swain@jpl.nasa.gov)
(5) Dr. Robert Zellem, M.S advisor and collaborator at NASA JPL (robert.t.zellem@jpl.nasa.gov)