

Arjun Baliga Savel

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EDUCATION

Ph.D., Astronomy, University of Maryland, College Park (expected)

M.S., Astronomy, University of Maryland, College Park (expected)

B.A., Astrophysics; B.A., Physics, University of California, Berkeley (2020)

Advisor: Courtney Dressing

RESEARCH INTERESTS

Extracting information from exoplanet atmospheres

Characterizing exoplanetary systems

Statistically constraining exoplanet properties, especially with respect to habitability

Constructing rigorously motivated machine learning applications to astronomy

REFEREED PUBLICATIONS

2. **Arjun B. Savel**, Courtney D. Dressing, Lea A. Hirsch, et al., 2020. “A Closer Look at Exoplanet Occurrence Rates: Considering the Multiplicity of Stars Without Detected Planets.” Submitted to the *Astronomical Journal*.

1. Brice-Oliver Demory, Francisco J. Pozuelos, Yilen Gómez Maqueo Chew & 70 other coauthors including **Arjun B. Savel**, 2020. “A super-Earth and a sub-Neptune orbiting the bright, quiet M3 dwarf TOI-1266.” Accepted for publication, *Astronomy and Astrophysics*.

SELECTED HONORS, PRIZES, AND AWARDS

Gregor and Donat Wentzel Scholarship, University of Maryland (2020)

Student commencement speaker, UC Berkeley Astronomy Department (2020)

[‡]Chambliss Astronomy Achievement Award Student Prize, AAS 235 (2020)

[†]Outstanding Graduate Student Instructor Award, UC Berkeley (2020)

*1st place, Astronomy Poster Summer Intern Symposium, UC Berkeley (2019)

Student Technology Fund grant for ULAB, UC Berkeley (2018)

Ongoing UC Berkeley Physics Department award for ULAB (2018)

SCIENCE TALKS AND POSTERS

8. Courtney D. Dressing, Steven Giacalone, Ellianna S. Abrahams & 7 others including **Arjun Savel**, 2020. “Using TESS to Investigate the Frequency of Planetary Systems Orbiting Cool Dwarfs”, AAS 235, Honolulu, Hawai’i

7. [‡]**Arjun Savel**, Courtney D. Dressing, Lea Hirsch, David Ciardi, Jordan P.C. Fleming, Steven Giacalone, Andrew W. Mayo, Jessie L. Christiansen, 2020. “A closer look at planet occurrence rates: AO follow-up of 71 stars in the Kepler field”, AAS 235, Honolulu, Hawai’i

6. **Arjun Savel**, Courtney D. Dressing, Lea Hirsch, David Ciardi, Jordan P.C. Fleming, Steven Giacalone, Andrew W. Mayo, Jessie L. Christiansen, 2019. “A Closer Look at Exoplanet Occurrence Rates: Considering the Multiplicity of Stars without Detected Planets”, Bay Area Exoplanet Meeting #31, NASA Ames

5. **Arjun Savel**, Courtney D. Dressing, Lea Hirsch, David Ciardi, Jordan P.C. Fleming, Steven Giacalone, Andrew W. Mayo, Jessie L. Christiansen, 2019. “A Closer Look at Exoplanet Occurrence Rates: The Impact of Stars Without Exoplanets”, Bay Area Planetary Sciences Meeting, Stanford University.
4. **Arjun Savel**, 2019. “Earth: Rare or Regular?”, Undergraduate Seminars, UC Berkeley Physics Department.
3. ***Arjun Savel**, Courtney D. Dressing, Lea Hirsch, David Ciardi, Jordan P. C. Fleming, Jessie L. Christiansen, 2019. “A closer look: AO follow-up of 109 stars in the Kepler and K2 fields”, APSIS Poster Session, UC Berkeley.
2. Courtney D. Dressing, **Arjun Savel** et al. 2019. “Characterizing Planetary Systems Orbiting TESS Cool Dwarfs”, TESS Science Conference I, MIT.
1. Steven Giacalone, Courtney Dressing, **Arjun Savel**, 2019. “Validation of TESS Exoplanet Candidates”, 3rd Advanced School on Exoplanetary Science, Vietri sul Mare.

PUBLIC TALKS

- Arjun Savel**. Amateur Astronomers, Inc. December Meeting, 2020 (upcoming).
Courtney D. Dressing, Steven Giacalone, Andrew W. Mayo, **Arjun Savel**. Evening with the Stars, UC Berkeley, 2020.

OBSERVING EXPERIENCE

- 3-m Shane Telescope (ShARCS), Mt. Hamilton, CA: assisted with 10 nights
10-meter Keck Telescope (NIRC2), Mauna Kea, HI: assisted with 1/2 night
10-meter Keck Telescope (NIRSPEC), Mauna Kea, HI: assisted with 1/2 night

TEACHING EXPERIENCE

- Undergraduate Student Instructor, Astronomy C12 (The Planets), UC Berkeley, under Courtney Dressing and Raymond Jeanloz (2020)
†Undergraduate Student Instructor, Astronomy C10 (Introduction to General Astronomy), UC Berkeley, under Alex Filippenko (2018-19)

COMMUNITY INVOLVEMENT

- Mentor, TARDIS Google Summer of Code (2020)
Public Liason for Prof. Alex Filippenko (2019-20)
Undergraduate Representative, Astronomy Department, UC Berkeley (2019-20)
Mentor, Berkeley Astronomy Scholars Program (2019-20)
Director of Physics and Astronomy, Undergraduate Lab at Berkeley (ULAB) (2018-19)
Night Editor, The Daily Californian (2017)

WORKSHOPS AND CONFERENCES

- JWST Master Class Workshop, Stanford University (2020)
Bay Area Exoplanet Meeting, NASA Ames (Spring 2019, Winter 2019, Spring 2020)
Bay Area Planetary Science Meeting, Stanford University (2019)

TECHNICAL SKILLS

- Python, ADQL/SQL, R, C, parallel computing, MCMC, neural networks, astronomical image reduction, open-source code management