

# Trevor J. David

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## CONTACT

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## EDUCATION

2018 PH.D. IN ASTROPHYSICS, CALIFORNIA INSTITUTE OF TECHNOLOGY

Thesis: *On the Evolutionary Pathways of Stars and Extrasolar Planets*

2013 M.S. IN ASTROPHYSICS, CALIFORNIA INSTITUTE OF TECHNOLOGY

GPA: 3.8/4.0

2009 B.A. IN PHYSICS & ASTRONOMY, VASSAR COLLEGE

GPA: 3.93/4.0

## APPOINTMENTS & EXPERIENCE

2022–2024	Quantitative Researcher & Strategy Owner	Linden Shore
2019–2022	Flatiron Research Fellow	Center for Computational Astrophysics Flatiron Institute, Simons Foundation
2019–2022	Research Associate	American Museum of Natural History
2017–2019	Exoplanetary Science Initiative Postdoctoral Fellow	NASA Jet Propulsion Laboratory
2017	Graduate Research Assistant	California Institute of Technology
2014–2017	NSF Graduate Research Fellow	California Institute of Technology
2011–2013	Jesse L. Greenstein Fellow	California Institute of Technology
2009–2011	Senior Editor and Science Writer	Atlas Obscura

## RESEARCH SKILLS

**Languages:** Python (14 years), C/C++ (2 years), SQL; **AI/ML:** scikit-learn, jax, PyMC, PyTorch; **Data manipulation & analysis:** pandas, polars; **Regression & classification:** gradient descent, linear regression (lasso, ridge), logistic regression, decision trees (Random Forest, LGBM), SVMs, MLPs, LLMs; **Probabilistic inference:** Markov chain Monte Carlo, Hamiltonian Monte Carlo, Gaussian process regression, Bayesian hierarchical modeling, Nested sampling; **Time series analysis:** signal processing, smoothing, detrending, filtering; **Software development:** version control (git), shell scripting (bash, zsh), scheduled tasks (cron), parallelization (joblib, multiprocessing, dask), containerization (docker), CI/CD (GitHub Actions).

## RESEARCH EXPERTISE

Formation and evolution of planetary systems; exoplanet demographics; transiting exoplanets; stellar evolution; atmospheric physics; open clusters and young stellar associations; fundamental stellar parameters; stellar ages; eclipsing binaries; time series analysis of photometric and radial velocity data.

## AWARDS & HONORS

2019	Best Postdoc Research Poster (Astrophysics & Space Science) – <i>Awarded to best research poster at NASA JPL Postdoc Research Day.</i>	NASA JPL
2016	David & Barbara Groce Research Award – <i>Scholarship awarded to support original research in astrophysics.</i>	Caltech
2015	Gerald Neugebauer Scholarship – <i>Awarded to 1–3 graduate students annually to support research-related expenses.</i>	Caltech
2011	National Science Foundation Graduate Research Fellowship – <i>Awarded to top 15% of graduate students nationally to support basic research in STEM.</i>	NSF
2009	Lucy Kellogg English Prize for Excellence in Physics – <i>Awarded to the top graduating physics major.</i>	Vassar College
2009	Phi Beta Kappa – <i>Awarded to distinguished students in the top 10% of their graduating class.</i>	Vassar College
2009	Sigma Xi – <i>Awarded to graduating seniors based on research accomplishments and academic record.</i>	Vassar College
2009	Departmental Honors, Physics & Astronomy – <i>Awarded to graduating seniors with excellent academic and research achievements.</i>	Vassar College
2009	General Honors – <i>Awarded to students in the top 20% of their graduating class.</i>	Vassar College
2009	Vera Rubin Research Award – <i>Scholarship awarded to support original research in astrophysics.</i>	Vassar College
2008	Ethel Hickox Pollard Memorial Physics Award – <i>Awarded to the junior physics major with the highest academic average.</i>	Vassar College

## GRANTS & FUNDING AWARDS

DATE	SOURCE	AMOUNT	PROJECT
2019	NASA TESS GI	\$100,000	The Evolution of Dust and Debris Around Sun-like Stars (PI: David)
2018	NASA K2 GO	\$100,000	Investigating the Early Evolution of Exoplanet Properties (PI: David)
2012	NSF GRFP	\$132,000	Age Determination of Prospective Exoplanet Host Stars (PI: David)

## TELESCOPE AWARDS

DATE	FACILITY	TIME	PROJECT
2021	<i>JWST</i>	25 hours	The nature, origin, and fate of two planets of a newborn system
2021	<i>TESS</i>	2 sectors	*Weighing newborn planets in the V1298 Tau System
2020	<i>Hubble</i>	8 orbits	Atmospheric characterization of infant multiplanet system V1298 Tau
2020	<i>Hubble</i>	17 orbits	Planetary mass loss and the high-energy spectrum of V1298 Tau
2020	<i>Hubble</i>	10 orbits	Water and methane in a juvenile transiting exoplanet
2019B	Keck	1 night	*Exoplanet transmission spectroscopy
2019B	Keck	1 night	Spin-orbit alignment of a young exoplanet
2019	Palomar	13 nights	PARVI Commissioning and early science
2019	<i>Spitzer</i>	12 hours	*Characterizing the atmosphere of a newborn Jupiter-sized exoplanet
2019A	Subaru	2 nights	Precision radial velocities of young stars
2019A	Keck	3 nights	*Exoplanet transmission spectroscopy
2018-2019	Palomar	3 nights	*Time series polarimetry of young low-mass stars
2018	<i>Kepler/K2</i>	Campaign 18	*Planet occurrence in a young stellar cluster
2018B	Keck	1 night	*Exoplanet transmission spectroscopy
2018B	Keck	1 night	Spin-orbit alignment of a young exoplanet
2017	<i>Kepler/K2</i>	Campaign 15	Disks, activity, and planets in Sco-Cen
2017	<i>Hubble</i>	10 orbits	K2-33b transmission spectroscopy
2017	<i>Spitzer</i>	23 hours	Rapidly rotating young stars
2017A	Keck	2 nights	Spin-orbit alignment of a young binary
2016-2017	Keck	10.5 nights	*Pre-main-sequence binaries
2016	<i>Kepler/K2</i>	Campaign 13	Monitoring young stars in Taurus
2015-2016	LCO	55 hours	*Transiting debris orbiting young stars
2013A	Keck	1 night	Exoplanet transmission spectroscopy
2012-2013	Palomar	34 nights	Directly imaging exoplanets
2012-2013	Palomar	7 nights	Stellar characterization
2009	Apache Point	1 night	Galactic archaeology
			*As P.I. or Science P.I.

## COLLOQUIA & INVITED TALKS

DATE	EVENT	VENUE
08/2022	NASA Small Explorer Mission Concept Workshop	NASA JPL, Pasadena, CA
07/2021	Sagan Exoplanet Summer Workshop	NASA Exoplanet Science Institute, Pasadena, CA
02/2021	Center for Exoplanets and Habitable Worlds Seminar	Penn State Univ., State College, PA
04/2020	Exoplanet Meeting (Winn Group)	Princeton Univ., Princeton, NJ
02/2020	Astrophysics Seminar	AMNH, New York, NY
11/2019	ITC Stars & Planets Seminar	Harvard-Smithsonian CfA, Cambridge, MA
03/2019	Exoplanetary Science Initiative Symposium	Caltech, Pasadena, CA
03/2019	Astrophysics Seminar	Carnegie Observatories, Pasadena, CA
10/2018	Astronomy Department Colloquium	Université de Montréal, QC
09/2018	ExSoCal 2018	Caltech, Pasadena, CA
08/2018	Exoplanets Seminar	NASA JPL, Pasadena, CA
05/2018	Planetary Science Seminar (Yung Group)	Caltech, Pasadena, CA
03/2018	Exoplanetary Science Initiative Symposium	NASA JPL, Pasadena, CA
01/2018	K2 Dwarf Stars and Clusters Workshop	Boston University, Boston, MA
09/2016	Center for Integrative Planetary Science Seminar	Univ. of California, Berkeley, CA
04/2016	K2 CHAI Collaboration Meeting	Univ. of Hawai'i at Mānoa, Honolulu, HI

## CONTRIBUTED & OTHER TALKS

DATE	EVENT	VENUE
04/2022	CCA Weekly Seminar	Flatiron Institute, New York, NY
03/2022	Fifty Years of Skumanich Relations	Boulder, CO
04/2021	CCA Weekly Seminar	Flatiron Institute, New York, NY
02/2020	CCA Weekly Seminar	Flatiron Institute, New York, NY
08/2019	Extreme Solar Systems IV	Harpa, Reykjavík, Iceland
04/2018	STScI Spring Symposium	Space Telescope Science Institute, Baltimore, MD
02/2017	K2 CHAI Collaboration Meeting	NASA Exoplanet Science Institute, Pasadena, CA
01/2017	American Astronomical Society 229	Gaylord Texan Resort & Convention Center, Grapevine, TX
10/2016	DPS 48/EPSC 11	Pasadena Convention Center, Pasadena, CA
09/2016	ExSoCal	Caltech, Pasadena, CA
09/2016	Keck Science Meeting	Caltech, Pasadena, CA
06/2016	Cool Stars XIX	Uppsala Konsert & Kongress, Uppsala, Sweden
02/2016	Exoplanet Meeting (Mawet Group)	Caltech, Pasadena, CA
05/2015	Exoplanet Meeting (Mawet Group)	Caltech, Pasadena, CA

## TEACHING EXPERIENCE

DATE	INSTITUTION	ROLE	COURSE
2014	Franklin Educational Services	Tutor	Physics and Mathematics
2013	Caltech	Teaching Assistant	Ay. 1: The Evolving Universe
2013	Caltech	Teaching Assistant	Ay. 21: Galaxies and Cosmology
2012	Caltech	Teaching Assistant	Ay. 20: Basic Astronomy and the Galaxy
2009	Poughkeepsie High School	Teaching Assistant	Introductory Physics
2009	Vassar College	Teaching Assistant	Phys. 280: Contemporary Optics
2008	Vassar College	Teaching Assistant	Phys. 180: Science of Sound
2008	Vassar College	Tutor	Introductory Physics

## ADVISING & MENTORSHIP

2022	John Livingston (National Astronomical Observatory of Japan) Project: <i>Constraining Planetary Evolution Models with Young Exoplanet Densities</i>
2021	Isabel Colman (AMNH Postdoctoral researcher) Project: <i>Measuring Stellar Rotation Periods from 200K TESS Time Series</i>
2021	Sarah Blunt (Caltech graduate student) Project: <i>Modeling Stellar Radial Velocity Time Series with Gaussian Processes</i>
2021	Adina Feinstein (Univ. of Chicago graduate student) Project: <i>Probabilistic Inference of Stellar and Planetary Parameters from TESS Time Series</i>
2021	Karl Jaehnig (Vanderbilt Univ. graduate student) Project: <i>Modeling Stellar Binary Time Series with Gaussian Processes</i>
2021	Quang Tran (UT Austin graduate student) Project: <i>Modeling Stellar Variability in Radial Velocities using Quasi-Periodic Gaussian Processes</i>
2021	Pa Chia Thao (UNC Chapel Hill graduate student) Project: <i>Time Series Forecasting with Recurrent Neural Networks</i>
2020	Angeli Sandoval (CUNY Hunter College undergraduate) Project: <i>The Influence of Age on Exoplanet Demographics</i>
2018	Grant Regen (Stanford Univ. undergraduate) Project: <i>Spectroscopic Confirmation of Astrometrically-Selected Brown Dwarfs in Moving Groups</i>
2016	Brianna Thomas (Howard Univ. undergraduate) Project: <i>Evolution of Debris Disks</i>
2014	Lyra Cao (Caltech undergraduate) Project: <i>Bayesian Age Estimation of Pre-Main Sequence Stars</i>

## SERVICE & OUTREACH

2022	Exoplanet Science Lead for NASA Small Explorer Mission Concept (\$150M class mission)
2020–2022	Exoplanet Group Meeting Leader, CCA, Flatiron Institute
2015–2022	Referee for <i>ApJ</i> , <i>ApJL</i> , <i>AJ</i> , <i>A&amp;A</i> , <i>MNRAS</i>
2022	NASA XRP Grant Review Panelist
2021	Hubble Space Telescope Grant Review Panelist (Cycle 29)
2020	NASA ADAP Grant Review Panelist
2020	NASA TESS Grant Review Panelist (Cycle 3)
2018	Astro2020 Decadal Survey White Paper Discussion Leader, NASA JPL
2018	European Research Council Starting Grant (€1.5M) Review Panelist
2017	Astro-ph Discussion Leader, Caltech
2015	Local Organizing Committee, ExSoCal, Caltech
2011	Guest Lecturer, Cleveland Elementary School, Pasadena, CA
2010–2011	Volunteer, The Planetary Society, Pasadena, CA
2008–2009	Society of Physics Students, Vassar College
2006–2009	Physics and Astronomy Majors Committee, Vassar College
2005–2009	Observatory Assistant, Vassar College Observatory

## MEDIA COVERAGE

01/2024	The New York Times, <a href="#">This Distant Planet Has a 350,000-Mile-Long Cometlike Tail</a> .
06/2022	Simons Foundation Annual Report (cover story), <a href="#">Worlds Away</a> .
05/2021	Simons Foundation Press Release, <a href="#">Shrinking Planets Could Explain Mystery of Universe’s Missing Worlds</a> .
11/2019	Nature Astronomy Research Highlight, <a href="#">A Kepler multiplanet system precursor</a> .
11/2019	AAS Nova Research Highlight, <a href="#">Lessons from a Quartet of Newborn Planets</a> .
06/2016	Caltech Press Release, <a href="#">Newborn Exoplanet Discovered Around Young Star</a> .
06/2016	NASA Press Release, <a href="#">NASA’s K2 Finds Newborn Exoplanet Around Young Star</a> .
06/2016	The Guardian, <a href="#">Discovery of ‘baby’ planets sheds light on planet and solar system formation</a> .
06/2016	Los Angeles Times, <a href="#">Newly discovered ‘baby’ planets could unlock mysteries of planetary evolution</a> .
06/2016	The Washington Post, <a href="#">These brand new baby exoplanets could help us understand where worlds come from</a> .

## REFERENCES

References available upon request.

## PUBLICATIONS

14 lead author papers (877 citations), 60 total papers (2686 citations).

h-index: 29, g-index: 51, i10-index: 46. Updated April 1, 2025. Reverse chronological order.

## LEAD AUTHOR

1. **David, T. J.**, Angus, R., Curtis, J. L., and 5 colleagues, 2022, “Further Evidence of Modified Spin-down in Sun-like Stars: Pileups in the Temperature-Period Distribution,” *The Astrophysical Journal*, 933, 114. [\[ADS\]](#).
2. **David, T. J.**, Contardo, G., Sandoval, A., and 7 colleagues, 2021, “Evolution of the Exoplanet Size Distribution: Forming Large Super-Earths Over Billions of Years,” accepted to *The Astronomical Journal*. [\[ADS\]](#).
3. **David, T. J.**, Petigura, E. A., Luger, R., and 4 colleagues, 2019, “Four newborn planets transiting the young solar analog V1298 Tau,” *The Astrophysical Journal Letters*, 885, L12. [\[ADS\]](#).
4. **David, T. J.**, Cody, A. M., Hedges, C. L., and 14 colleagues, 2019, “A warm Jupiter-sized planet transiting the pre-main sequence star V1298 Tau,” *The Astronomical Journal*, 158, 79. [\[ADS\]](#).
5. **David, T. J.**, Hillenbrand, L. A., Gillen, E., and 4 colleagues, 2019, “Age Determination in Upper Scorpius with Eclipsing Binaries,” *The Astrophysical Journal*, 872, 161. [\[ADS\]](#).

6. **David, T. J.**, Mamajek, E. E., Vanderburg, A., and 19 colleagues, 2018, “Discovery of a Transiting Adolescent Sub-Neptune Exoplanet with K2,” *The Astronomical Journal*, 156, 302. [ADS].
7. **David, T. J.**, Crossfield, I. J. M., Benneke, B., and 14 colleagues, 2018, “Three Small Planets Transiting the Bright Young Field Star K2-233,” *The Astronomical Journal*, 155, 222. [ADS].
8. **David, T. J.**, 2018, “On the Evolutionary Pathways of Stars and Extrasolar Planets,” Ph.D. Thesis, *California Institute of Technology*. [ADS].
9. **David, T. J.**, Petigura, E. A., Hillenbrand, L. A., and 14 colleagues, 2017, “A Transient Transit Signature Associated with the Young Star RIK-210,” *The Astrophysical Journal*, 835, 168. [ADS].
10. **David, T. J.**, Hillenbrand, L. A., Petigura, E. A., and 10 colleagues, 2016, “A Neptune-sized transiting planet closely orbiting a 5-10-million-year-old star,” *Nature*, 534, 658. [ADS].
11. **David, T. J.**, Conroy, K. E., Hillenbrand, L. A., and 7 colleagues, 2016, “New Pleiades Eclipsing Binaries and a Hyades Transiting System Identified by K2,” *The Astronomical Journal*, 151, 112. [ADS].
12. **David, T. J.**, Hillenbrand, L. A., Cody, A. M., and 5 colleagues, 2016, “K2 Discovery of Young Eclipsing Binaries in Upper Scorpius: Direct Mass and Radius Determinations for the Lowest Mass Stars and Initial Characterization of an Eclipsing Brown Dwarf Binary,” *The Astrophysical Journal*, 816, 21. [ADS].
13. **David, T. J.**, Stauffer, J. R., Hillenbrand, L. A., and 16 colleagues, 2015, “HII 2407: An Eclipsing Binary Revealed By K2 Observations of the Pleiades,” *The Astrophysical Journal*, 814, 62. [ADS].
14. **David, T. J.**, and Hillenbrand, L. A., 2015, “The Ages of Early-type Stars: Strömgren Photometric Methods Calibrated, Validated, Tested, and Applied to Hosts and Prospective Hosts of Directly Imaged Exoplanets,” *The Astrophysical Journal*, 804, 146. [ADS].

#### ANY AUTHOR

1. Barat, S., Désert, J. M., Goyal, J. M., and 13 colleagues, 2024, “First comparative exoplanetology within a transiting multi-planet system: Comparing the atmospheres of V1298 Tau b and c,” *Astronomy & Astrophysics*, 692, A198. [ADS].
2. Barat, S., Désert, J. M., Vazan, A., and 12 colleagues, 2024, “The metal-poor atmosphere of a potential Sub-Neptune progenitor,” *Nature Astronomy*, 8, 899. [ADS].
3. Colman, I. L., Angus, R., **David, T. J.**, and 3 colleagues, 2024, “Methods for the Detection of Stellar Rotation Periods in Individual TESS Sectors and Results from the Prime Mission,” *The Astronomical Journal*, 167, 189. [ADS].
4. Tyler, D., Petigura, E. A., Oklopčić, A., and **David, T. J.**, 2024, “WASP-69b’s Escaping Envelope Is Confined to a Tail Extending at Least  $7 R_p$ ,” *The Astrophysical Journal*, 960, 123. [ADS].
5. Blunt, S., Carvalho, A., **David, T. J.**, and 23 colleagues, 2023, “Overfitting Affects the Reliability of Radial Velocity Mass Estimates of the V1298 Tau Planets,” *The Astronomical Journal*, 166, 62. [ADS].
6. Jaehnig, K., Price-Whelan, A. M., Foreman-Mackey, D. and 5 colleagues, “Spectroscopic eclipsing binary orbital parameter estimation with TESS and APOGEE,” submitted to AAS Journals.
7. Chance, Q., Foreman-Mackey, D., Ballard, S., and 3 colleagues, 2022, “paired: A Statistical Framework for Determining Stellar Binarity with Gaia RVs. I. Planet Hosting Binaries,” submitted to *The Astrophysical Journal*. [ADS].
8. Thao, P. C., Mann, A. W., Gao, P., and 10 colleagues, 2023, “Hazy with a Chance of Star Spots: Constraining the Atmosphere of Young Planet K2-33b,” *The Astronomical Journal*, 165, 23. [ADS].
9. Lu, Y. L., Curtis, J. L., Angus, R., and 2 colleagues, 2022, “Bridging the Gap-The Disappearance of the Intermediate Period Gap for Fully Convective Stars, Uncovered by New ZTF Rotation Periods,” *The Astronomical Journal*, 164, 251. [ADS].
10. **David, T. J.**, Angus, R., Curtis, J. L., and 5 colleagues, 2022, “Further Evidence of Modified Spin-down in Sun-like Stars: Pileups in the Temperature-Period Distribution,” *The Astrophysical Journal*, 933, 114. [ADS].

11. Johnson, M. C., **David, T. J.**, Petigura, E. A., and 22 colleagues, 2022, “An Aligned Orbit for the Young Planet V1298 Tau b,” *The Astronomical Journal*, 163, 247. [\[ADS\]](#).
12. Hedges, C., Hughes, A., Zhou, G., and 49 colleagues, 2022, “Erratum: “TOI-2076 and TOI-1807: Two Young, Comoving Planetary Systems within 50 pc Identified by TESS that are Ideal Candidates for Further Follow Up” (2021, AJ, 162, 54),” *The Astronomical Journal*, 163, 143. [\[ADS\]](#).
13. Feinstein, A. D., **David, T. J.**, Montet, B. T., and 3 colleagues, 2022, “V1298 Tau with TESS: Updated Ephemerides, Radii, and Period Constraints from a Second Transit of V1298 Tau e,” *The Astrophysical Journal Letters*, 925, L2. [\[ADS\]](#).
14. Hedges, C., Hughes, A., Zhou, G., and 49 colleagues, 2021, “Erratum: “TOI-2076 and TOI-1807: Two Young, Comoving Planetary Systems within 50 pc Identified by TESS that are Ideal Candidates for Further Follow Up” (2021, AJ, 162, 54),” *The Astronomical Journal*, 162, 305. [\[ADS\]](#).
15. Vissapragada, S., Stefánsson, G., Greklek-McKeon, M., and 28 colleagues, 2021, “A Search for Planetary Metastable Helium Absorption in the V1298 Tau System,” *The Astronomical Journal*, 162, 222. [\[ADS\]](#).
16. Feinstein, A., Montet, B., Johnson, M., and 5 colleagues, 2021, “H- $\alpha$  and Ca II Infrared Triplet Variations During a Transit of the 23 Myr Planet V1298 Tau c,” *The Astronomical Journal*, 162, 213. [\[ADS\]](#).
17. Rebull, L., Stauffer, J. R., Cody, A. M., and 4 colleagues, 2021, “Erratum: “Rotation of Low-mass Stars in Taurus with K2” (2020, AJ, 159, 273),” *The Astronomical Journal*, 162, 172. [\[ADS\]](#).
18. Hedges, C., Hughes, A., Zhou, G., **David, T. J.**, and 43 colleagues, 2021, “TOI-2076 and TOI-1807: Two Young, Comoving Planetary Systems within 50 pc Identified by TESS that are Ideal Candidates for Further Follow Up,” *The Astronomical Journal*, 162, 54. [\[ADS\]](#).
19. Foreman-Mackey, D., Luger, R., Agol, E., and 13 colleagues, 2021, “exoplanet: Gradient-based probabilistic inference for exoplanet data & other astronomical time series,” *The Journal of Open Source Software*, 6, 3285. [\[ADS\]](#).
20. **David, T. J.**, Contardo, G., Sandoval, A., and 7 colleagues, 2020, “Evolution of the Exoplanet Size Distribution: Forming Large Super-Earths Over Billions of Years,” *The Astronomical Journal*, 161, 265. [\[ADS\]](#).
21. Sandoval, A., Contardo, G., and **David, T. J.**, 2020, “The Influence of Age on the Relative Frequency of Super-Earths and Sub-Neptunes,” *The Astrophysical Journal*, 911, 117. [\[ADS\]](#).
22. Lu, Y., Angus, R., Curtis, J. L., and 2 colleagues, 2021, “Gyro-Kinematic Ages for around 30,000 Kepler Stars,” *The Astronomical Journal*, 161, 189. [\[ADS\]](#).
23. Matthews, E. C., Hinkley, S., Stapelfeldt, K., and 8 colleagues, 2020, “Three new late-type stellar companions to very dusty WISE debris disks identified with VLT/SPHERE imaging,” *The Astronomical Journal*, 161, 78. [\[ADS\]](#).
24. van Dam, D. M., Kenworthy, M. A., **David, T. J.**, and 21 colleagues, 2020, “An Asymmetric Eclipse Seen toward the Pre-main-sequence Binary System V928 Tau,” *The Astronomical Journal*, 160, 285. [\[ADS\]](#).
25. Gagné, J., **David, T. J.**, Mamajek, E. E., and 3 colleagues, 2020, “The  $\mu$  Tau Association: A 60 Myr Old Coeval Group at 150 pc from the Sun,” *The Astrophysical Journal*, 903, 96. [\[ADS\]](#).
26. Stauffer, J. R., Barrado, D., **David, T. J.** and 7 colleagues, 2020, “Pleiades or Not? Resolving the Status of the Lithium-rich M Dwarfs HHJ 339 and HHJ 430,” *The Astronomical Journal*, 160, 30. [\[ADS\]](#).
27. Rebull, L. M., Stauffer, J. R., Cody, A. M. and 4 colleagues, 2020, “Rotation of Low-mass Stars in Taurus with K2,” *The Astronomical Journal*, 159, 273. [\[ADS\]](#).
28. **David, T. J.**, Petigura, E. A., Luger, R., and 4 colleagues, 2019, “Four newborn planets transiting the young solar analog V1298 Tau,” *The Astrophysical Journal Letters*, 885, L12. [\[ADS\]](#).
29. Hippke, M., **David, T. J.**, Mulders, G. D., and Heller, R., 2019, “Wotan: Comprehensive time-series de-trending in Python,” *The Astronomical Journal*, 158, 143. [\[ADS\]](#).
30. **David, T. J.**, Cody, A. M., Hedges, C. L., and 14 colleagues, 2019, “A warm Jupiter-sized planet transiting the pre-main sequence star V1298 Tau,” *The Astronomical Journal*, 158, 79. [\[ADS\]](#).



31. Beichman, C. A., Hirano, **David, T. J.**, and 9 colleagues, 2019, “A Mass Limit for the Young Transiting Planet V1298 Tau b,” *Research Notes of the AAS*, 3, 6. [IOP].
32. **David, T. J.**, Hillenbrand, L. A., Gillen, E., and 4 colleagues, 2019, “Age Determination in Upper Scorpius with Eclipsing Binaries,” *The Astrophysical Journal*, 872, 161. [ADS].
33. Mellon, S. N., Mamajek, E. E., Zwintz, K., and 11 colleagues, 2019, “Discovery of  $\delta$  Scuti Pulsations in the Young Hybrid Debris Disk Star HD 156623,” *The Astrophysical Journal*, 870, 36. [ADS].
34. **David, T. J.**, Mamajek, E. E., Vanderburg, A., and 19 colleagues, 2018, “Discovery of a Transiting Adolescent Sub-Neptune Exoplanet with K2,” *The Astronomical Journal*, 156, 302. [ADS].
35. Stauffer, J. R., Rebull, L. M., Cody, A. M., and 5 colleagues, 2018, “The Rotational Evolution of Young, Binary M Dwarfs,” *The Astronomical Journal*, 156, 275. [ADS].
36. Crossfield, I. J. M., Guerrero, N., **David, T. J.**, and 38 colleagues, 2018, “A TESS Dress Rehearsal: Planetary Candidates and Variables from K2 Campaign 17,” *The Astrophysical Journal Supplement*, 239, 5. [ADS].
37. Peterson, M. S., Benneke, B., **David, T. J.**, and 21 colleagues, 2018, “A  $2 R_{\oplus}$  Planet Orbiting the Bright Nearby K Dwarf Wolf 503,” *The Astronomical Journal*, 156, 188. [ADS].
38. Matthews, E., Hinkley, S., Vigan, A., and 10 colleagues, 2018, “Constraining the presence of giant planets in two-belt debris disc systems with VLT/SPHERE direct imaging and dynamical arguments,” *Monthly Notices of the Royal Astronomical Society*, 480, 2757. [ADS].
39. Wang, J., **David, T. J.**, Hillenbrand, L. A., and 3 colleagues, 2018, “EPIC 203868608: A Low-mass Quadruple Star System in the Upper Scorpius OB Association,” *The Astrophysical Journal*, 865, 141. [ADS].
40. **David, T. J.**, Crossfield, I. J. M., Benneke, B., and 14 colleagues, 2018, “Three Small Planets Transiting the Bright Young Field Star K2-233,” *The Astronomical Journal*, 155, 222. [ADS].
41. Rebull, L. M., Stauffer, J. R., Cody, A. M., and 3 colleagues, 2018, “Rotation of Low-mass Stars in Upper Scorpius and  $\rho$  Ophiuchus with K2,” *The Astronomical Journal*, 155, 196. [ADS].
42. Stauffer, J. R., Rebull, L. M., **David, T. J.**, and 8 colleagues, 2018, “More Rapidly Rotating PMS M Dwarfs with Light Curves Suggestive of Orbiting Clouds of Material,” *The Astronomical Journal*, 155, 63. [ADS].
43. **David, T. J.**, 2018, “On the Evolutionary Pathways of Stars and Extrasolar Planets,” Ph.D. Thesis, *California Institute of Technology*. [ADS].
44. Ciardi, D. R., Crossfield, I. J. M., Feinstein, A. D., and 14 colleagues, 2018, “K2-136: A Binary System in the Hyades Cluster Hosting a Neptune-sized Planet,” *The Astronomical Journal*, 155, 10. [ADS].
45. Gillen, E., Hillenbrand, L. A., **David, T. J.**, and 5 colleagues, 2017 “New Low-mass Eclipsing Binary Systems in Praesepe Discovered by K2,” *The Astrophysical Journal*, 849, 11. [ADS].
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