

Trevor J. David

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

REFERENCES

References available upon request.

PUBLICATIONS

14 lead author papers (876 citations), 60 total papers (2686 citations).

h-index: 29, g-index: 51, i10-index: 46. Updated April 6, 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- α 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 μ 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 δ 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 ρ 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].
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