

refereed: 111 / first author: 9 / citations: 29,883 / h-index: 53 (2026-02-22)

## Refereed publications

- <sup>111</sup> Hapitas, Timothy; Widrow, Lawrence M.; Dharmawardena, Thavisha E.; & **Foreman-Mackey, Daniel**, 2025, *Gaussian Process Methods for Very Large Astrometric Data Sets*, The Astrophysical Journal, **995**, 35 (arXiv:2507.10317)
- <sup>110</sup> Chance, Quadry; **Foreman-Mackey, Daniel**; Ballard, Sarah; Casey, Andrew R.; et al., 2025, *paired: A Statistical Framework for Detecting Stellar Binarity with Gaia RVs. I. Sensitivity to Unresolved Binaries*, The Astrophysical Journal, **992**, 131 (arXiv:2206.11275) [11 citations]
- <sup>109</sup> Hattori, Soichiro; Angus, Ruth; **Foreman-Mackey, Daniel**; Lu, Yuxi (Lucy); & Colman, Isabel, 2025, *Measuring Long Stellar Rotation Periods (>10 days) from TESS FFI Light Curves is Possible: An Investigation Using TESS and ZTF*, The Astronomical Journal, **170**, 15 (arXiv:2505.10376) [7 citations]
- <sup>108</sup> Evans-Soma, Thomas M.; Sing, David K.; Barstow, Joanna K.; Piette, Anjali A. A.; et al. (incl. **DFM**), 2025, *SiO and a super-stellar C/O ratio in the atmosphere of the giant exoplanet WASP-121 b*, Nature Astronomy, **9**, 845 (arXiv:2506.01771) [12 citations]
- <sup>107</sup> Sayeed, Maryum; Angus, Ruth; Berger, Travis A.; Lu, Yuxi(Lucy); et al. (incl. **DFM**), 2025, *Exoplanet Occurrence Rate with Age for FGK Stars in Kepler*, The Astronomical Journal, **169**, 112 (arXiv:2501.13809) [4 citations]
- <sup>106</sup> Garrison, Lehman H.; **Foreman-Mackey, Daniel**; Shih, Yu-hsuan; & Barnett, Alex, 2024, *NIFTY-LS: Fast and Accurate Lomb-Scargle Periodograms Using a Non-uniform FFT*, Research Notes of the American Astronomical Society, **8**, 250 (arXiv:2409.08090) [5 citations]
- <sup>105</sup> Edwards, Thomas D. P.; Wong, Kaze W. K.; Lam, Kelvin K. H.; Coogan, Adam; et al. (incl. **DFM**), 2024, *Differentiable and hardware-accelerated waveforms for gravitational wave data analysis*, Physical Review D, **110**, 64028 (arXiv:2302.05329) [39 citations]
- <sup>104</sup> Dharmawardena, T. E.; Bailer-Jones, C. A. L.; Fouesneau, M.; **Foreman-Mackey, Daniel**; et al., 2024, *All-sky three-dimensional dust density and extinction Maps of the Milky Way out to 2.8 kpc*, Monthly Notices of the Royal Astronomical Society, **532**, 3480 (arXiv:2406.06740) [21 citations]
- <sup>103</sup> Garcia, Lionel J.; **Foreman-Mackey, Daniel**; Murray, Catriona A.; Aigrain, Suzanne; et al., 2024, *nuance: Efficient Detection of Planets Transiting Active Stars*, The Astronomical Journal, **167**, 284 (arXiv:2402.06835) [5 citations]
- <sup>102</sup> Fortune, Mark; Gibson, Neale P.; **Foreman-Mackey, Daniel**; Evans-Soma, Thomas M.; et al., 2024, *How do wavelength correlations affect transmission spectra? Application of a new fast and flexible 2D Gaussian process framework to transiting exoplanet spectroscopy*, Astronomy and Astrophysics, **686** (arXiv:2402.15204) [6 citations]
- <sup>101</sup> Lu, Yuxi(Lucy); Angus, Ruth; **Foreman-Mackey, Daniel**; & Hattori, Soichiro, 2024, *In This Day and Age: An Empirical Gyrochronology Relation for Partially and Fully Convective Single Field Stars*, The Astronomical Journal, **167**, 159 (arXiv:2310.14990) [31 citations]
- <sup>100</sup> Yahalom, Daniel A.; Angus, Ruth; Spergel, David N.; & **Foreman-Mackey, Daniel**, 2023, *Detecting Solar System Analogs through Joint Radial Velocity/Astrometric Surveys*, The Astronomical Journal, **166**, 258 (arXiv:2302.05064) [8 citations]
- <sup>99</sup> Dong, Jiayin; & **Foreman-Mackey, Daniel**, 2023, *A Hierarchical Bayesian Framework for*

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- 96 Blunt, Sarah; Carvalho, Adolfo; David, Trevor J.; Beichman, Charles; et al. (incl. **DFM**), 2023, *Overfitting Affects the Reliability of Radial Velocity Mass Estimates of the V1298 Tau Planets*, The Astronomical Journal, **166**, 62 (arXiv:2306.08145) [46 citations]
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- 92 Mikal-Evans, Thomas; Sing, David K.; Dong, Jiayin; **Foreman-Mackey, Daniel**; et al., 2023, *A JWST NIRSpec Phase Curve for WASP-121b: Dayside Emission Strongest Eastward of the Substellar Point and Nightside Conditions Conducive to Cloud Formation*, The Astrophysical Journal, **943** (arXiv:2301.03209) [41 citations]
- 91 Dharmawardena, T. E.; Bailer-Jones, C. A. L.; Fouesneau, M.; **Foreman-Mackey, Daniel**; et al., 2023, *The three-dimensional structure of galactic molecular cloud complexes out to 2.5 kpc*, Monthly Notices of the Royal Astronomical Society, **519**, 228 (arXiv:2210.03615) [17 citations]
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- 88 Nagaraj, Gautam; Forbes, John C.; Leja, Joel; **Foreman-Mackey, Daniel**; & Hayward, Christopher C., 2022, *Empirical Dust Attenuation Model Leads to More Realistic UVJ Diagram for TNG100 Galaxies*, The Astrophysical Journal, **939**, 29 (arXiv:2204.06449) [7 citations]
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- 83 Angus, Ruth; Price-Whelan, Adrian M.; Zinn, Joel C.; Bedell, Megan; *et al.* (incl. **DFM**), 2022, *The 3D Galactocentric Velocities of Kepler Stars: Marginalizing Over Missing Radial Velocities*, The Astronomical Journal, **164**, 25 (arXiv:2205.08901) [4 citations]
- 82 Hattori, Soichiro; **Foreman-Mackey, Daniel**; Hogg, David W.; Montet, Benjamin T.; *et al.*, 2022, *The unpopular Package: A Data-driven Approach to Detrending TESS Full-frame Image Light Curves*, The Astronomical Journal, **163**, 284 (arXiv:2106.15063) [54 citations]
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- 75 Feinstein, Adina D.; David, Trevor J.; Montet, Benjamin T.; **Foreman-Mackey, Daniel**; *et al.*, 2022, *V1298 Tau with TESS: Updated Ephemerides, Radii, and Period Constraints from a Second Transit of V1298 Tau e*, The Astrophysical Journal, **925** (arXiv:2111.08660) [25 citations]
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