

First-Author Publications

- [1] **F Dai**, A Howard, N Batalha, et al., 2021, *The Astronomical Journal*, 162, 62, [ADS](#)
The TESS-Keck Survey. X: TOI-1444b and a Comparative Analysis of the Ultra-short-period Planets with Hot Neptunes
- [2] **F Dai**, R Roy, BJ Fulton, et al. 2020, *The Astronomical Journal*, 160, 193, [ADS](#)
The TESS-Keck Survey. III. A Stellar Obliquity Measurement of TOI-1726 c
- [3] **F Dai**, JN Winn, K Schlaufman, et al., 2020, *The Astronomical Journal*, 159, 247, [ADS](#)
California-Kepler Survey. IX. Revisiting the Minimum-mass Extrasolar Nebula with Precise Stellar Parameters
- [4] **F Dai**, K Masuda, JN Winn, L Zeng 2019, *The Astrophysical Journal*, 883, 1, [ADS](#)
Homogeneous Analysis of Hot Earths: Masses, Sizes, and Compositions
- [5] **F Dai**, K Masuda, JN Winn, 2018, *The Astrophysical Journal Letter*, 864, 2, L38, [ADS](#)
Larger Mutual Inclinations for the Shortest-period Planets
- [6] **F Dai**, JN Winn, Z Berta-Thompson, R Sanchis-Ojeda, S Albrecht, 2018, *The Astronomical Journal* 155, 177, [ADS](#)
Stellar Obliquity and Magnetic Activity of Planet-hosting Stars and Eclipsing Binaries Based on Transit Chord Correlation [7] **F Dai**, JN Winn, D Gandolfi, et al., 2017, *The Astronomical Journal* 154, 226, [ADS](#)
The Discovery and Mass Measurement of a New Ultra-short-period Planet: K2-131b
- [8] **F Dai**, JN Winn, 2017, *The Astronomical Journal* 153, 205, [ADS](#)
The Oblique Orbit of WASP-107b from K2 Photometry
- [9] **F Dai**, JN Winn, L Yu, S Albrecht, 2017, *The Astronomical Journal* 153, 40, [ADS](#)
The Stellar Obliquity, Planet Mass, and Very Low Albedo of Qatar-2 from K2 Photometry
- [10] **F Dai**, JN Winn, S Albrecht, P Arriagada, et al., 2016, *The Astrophysical Journal* 825, 53, [ADS](#)
Doppler Monitoring of five K2 Transiting Planetary Systems
- [11] **F Dai**, JN Winn, P Arriagada, RP Butler, JD Crane, et al., 2015, *The Astrophysical Journal Letters* 813, L9, [ADS](#)
Doppler Monitoring of the WASP-47 Multiplanet System
- [12] **F Dai**, S Facchini, CJ Clarke, TJ Haworth, 2015, *Monthly Notices of the Royal Astronomical Society* 449, 2, [ADS](#)
A Tidal Encounter Caught in the Act: Modelling a Star-disc Fly-by in the Young RW Aurigae System

Major-Contribution Publications

- [13] L Weiss, **F Dai**, et al., 2021, *The Astronomical Journal*, 161, 2, [ADS](#)
The TESS-Keck Survey. II. An Ultra-short-period Rocky Planet and Its Siblings Transiting the Thick-disk Star TOI-561
- [14] R Rubenzahl, **F Dai**, et al., 2021, *The Astronomical Journal*, 161, 3, [ADS](#)
TESS-Keck Survey. IV. A Retrograde, Polar Orbit for the Ultra-low-density, Hot Super-Neptune WASP-107b

- [15] L Wang & **F Dai**, 2021, *The Astrophysical Journal*, 914, 2, 98, [ADS](#)
Metastable Helium Absorptions with 3D Hydrodynamics and Self-consistent Photochemistry. II. WASP-107b, Stellar Wind, Radiation Pressure, and Shear Instability
- [16] L Wang & **F Dai**, 2021, *The Astrophysical Journal*, 914, 2, 98, [ADS](#)
Metastable Helium Absorptions with 3D Hydrodynamics and Self-consistent Photochemistry. I. WASP-69b, Dimensionality, X-Ray and UV Flux Level, Spectral Types, and Flares
- [17] M Zhang, H Knutson, L Wang, **F Dai**, et al., 2021, *The Astronomical Journal*, 161, 4, [ADS](#)
No Escaping Helium from 55 Cnc e
- [18] M Zhang, H Knutson, L Wang, **F Dai**, et al., 2021, submitted to *The Astronomical Journal*, [ADS](#)
Detection of Ongoing Mass Loss from HD 63433c, a Young Mini Neptune
- [19] J Livingston, **F Dai**, et al., 2019, *Monthly Notices of the Royal Astronomical Society*, 484, 1, [ADS](#)
K2-264: a Transiting Multiplanet System in the Praesepe Open Cluster
- [20] L Wang & **F Dai**, 2018, *The Astrophysical Journal Letters* 873, 1, L1, [ADS](#)
Dusty Outflows in Planetary Atmospheres: Understanding "Super-puffs" and Transmission Spectra of Sub-Neptunes
- [21] JH Livingston, M Endl, **F Dai**, et al., 2018, *The Astronomical Journal* 156, 78 [ADS](#)
44 Validated Planets from K2 Campaign 10
- [22] MC Johnson, **F Dai**, et al., 2018, *Monthly Notices of the Royal Astronomical Society*, 481, 1, [ADS](#)
The K2-260 b: a Hot Jupiter Transiting an F Star, and K2-261 b: a Warm Saturn Around a Bright G Star
- [23] L Wang & **F Dai**, 2018, *The Astrophysical Journal* 860, 175, [ADS](#)
Evaporation of Low-mass Planet Atmospheres: Multidimensional Hydrodynamics with Consistent Thermochemistry [24] W Zhu, **F Dai**, K Masuda, 2018, *Research Notes of the American Astronomical Society*, 2, 3, [ADS](#)
Kepler-730b is Probably a Hot Jupiter with a Small Companion
- [25] V Van Eylen, **F Dai**, et al., 2018, *MNRAS*, 478, 4, [ADS](#)
HD 89345: a Bright Oscillating Star Hosting a Transiting Warm Saturn-sized Planet Observed by K2
- [26] O Barragan, D Gandolfi, **F Dai**, et al., 2018, *Astronomy & Astrophysics* 612, A95, [ADS](#)
K2-141 b-A 5-M_⊕ Super-Earth Transiting a K7 V Star Every 6.7 h
- [27] T Hirano, **F Dai**, et al., 2018, *The Astronomical Journal* 155, 127, [ADS](#)
Exoplanets around Low-mass Stars Unveiled by K2
- [28] T Hirano, **F Dai**, et al., 2018, *The Astronomical Journal* 155, 124, [ADS](#)
K2-155: A Bright Metal-poor M Dwarf with Three Transiting Super-Earths
- [29] JH Livingston, **F Dai**, et al., 2018, *The Astronomical Journal* 155, 115, [ADS](#)
Three Small Planets Transiting a Hyades Star
- [30] P Niraula, S Redfield, **F Dai**, et al., 2017, *The Astronomical Journal* 154, 266, [ADS](#)
Three Super-Earths Transiting the Nearby Star GJ 9827
- [31] EW Guenther, O Barragan, **F Dai**, et al., 2017, *Astronomy & Astrophysics* 608, A93, [ADS](#)
K2-106, a System Containing a Metal-rich Planet and a Planet of Lower Density
- [32] R Sanchis-Ojeda, JN Winn, **F Dai**, et al., 2015, *The Astrophysical Journal Letters* 812, L11, [ADS](#)
A Low Stellar Obliquity for WASP-47, a Compact Multiplanet System with a Hot Jupiter and an Ultra-short Period Planet

Other Refereed Publications

- [33] M Kosiarek, D Berardo, ... **F Dai**, et al., 2021, *The Astronomical Journal*, 161, 1, [ADS](#)
Physical Parameters of the Multiplanet Systems HD 106315 and GJ 9827
- [34] R Luque; L Serrano, ... **F Dai**, et al., 2021, *Astronomy & Astrophysics*, 645, [ADS](#)
A Planetary System with two Transiting Mini-Neptunes Near the Radius Valley around the Bright M dwarf TOI-776

- [35] P Kimberly; S Vissapragada, ... **F Dai**, et al., 2021, The Astrophysical Journal Letters, 909, 1, L10, [ADS](#)
Metastable Helium Reveals an Extended Atmosphere for the Gas Giant HAT-P-18b
- [36] S Wang, JN Winn, ... **F Dai**, et al., 2021, in Press, The Astronomical Journal, 162, 2, [ADS](#)
The Aligned Orbit of the Eccentric Warm Jupiter K2-232b
- [37] J Lubin, J Van Zandt, ... **F Dai**, et al., 2021, in Press, The Astronomical Journal, [ADS](#)
TESS-Keck Survey IX: Masses of Three Sub-Neptunes Orbiting HD 191939 and the Discovery of a Warm Jovian
- [38] S Vissapragada, G Stefansson, ... **F Dai**, et al., 2021, in Press, The Astronomical Journal, [ADS](#)
A Search for Planetary Metastable Helium Absorption in the V1298 Tau System
- [39] V Van Eylen, N Astudillo-Defru, ... **F Dai**, et al., 2021, Monthly Notices of the Royal Astronomical Society, 507, 2, [ADS](#)
Masses and Compositions of three Small Planets Orbiting the Nearby M dwarf L231-32 and the M dwarf Radius Valley
- [40] A Osborn, D Armstrong, ... **F Dai**, et al., 2021, Monthly Notices of the Royal Astronomical Society, 507, 2, [ADS](#)
TOI-431/HIP 26013: a super-Earth and a sub-Neptune transiting a bright, early K dwarf, with a third RV planet
- [41] A Chontos, J Murphy, ... **F Dai**, et al., 2021, Submitted to AAS Journals [ADS](#)
The TESS-Keck Survey: Science Goals and Target Selection
- [42] J G Winters, R Cloutier, ... **F Dai**, et al., 2021, Submitted to AAS Journals [ADS](#)
A Second Planet Transiting LTT 1445A and a Determination of the Masses of Both Worlds
- [43] J P de Leon, J Livingston, ... **F Dai**, et al., 2021, in Press, Monthly Notices of the Royal Astronomical Society [ADS](#)
37 New Validated Planets in Overlapping K2 Campaigns
- [44] M A Limbach, J Vos, ... **F Dai**, et al., 2021, The Astrophysical Journal Letters, in Press, [ADS](#)
On the Detection of Exomoons Transiting Isolated Planetary-Mass Objects
- [45] M Rice, S Wang, ... **F Dai**, et al., 2021, in Press, The Astronomical Journal, [ADS](#)
Stellar Obliquities in Long-period Exoplanet Systems (SOLES) I: The Spin-Orbit Alignment of K2-140 b
- [46] T Hirano, E Gaidos, ... **F Dai**, et al., 2020, The Astrophysical Journal Letters, 890, 2, [ADS](#)
Evidence for Spin-Orbit Alignment in the TRAPPIST-1 System
- [47] L Nielsen, D Gandolfi, ... **F Dai**, et al., 2020, Monthly Notices of the Royal Astronomical Society, 492, 4, [ADS](#)
Mass Determinations of the three Mini-Neptunes Transiting TOI-125
- [48] K Lam, Kristine, J Korth, ... **F Dai**, et al., 2020, The Astronomical Journal, 159, 3, [ADS](#)
It Takes Two Planets in Resonance to Tango around K2-146
- [49] J Subjak, R Sharma, ... **F Dai**, et al., 2020, The Astronomical Journal, 159, 4, [ADS](#)
TOI-503: The First Known Brown-dwarf Am-star Binary from the TESS Mission
- [50] D Hidalgo, E Palle, ... **F Dai**, et al., 2020, Astronomy & Astrophysics, 636, 13, [ADS](#)
Three Planets Transiting the Evolved Star EPIC 249893012: a Hot Super-Earth and Two Warm Sub-Neptunes
- [51] Y Chachan, D Jontof-Hutter, ... **F Dai**, et al., 2020, The Astronomical Journal, 160, 5, [ADS](#)
A Featureless Infrared Transmission Spectrum for the Super-puff Planet Kepler-79d
- [52] I Carleo, D Gandolfi, ... **F Dai**, et al., 2020, The Astronomical Journal, 160, 3, [ADS](#)
The Multiplanet System TOI-421
- [53] M Fridlund, J Livingston, ... **F Dai**, et al., 2020, Monthly Notices of the Royal Astronomical Society, 498, 3, [ADS](#)
The TOI-763 system: Sub-Neptunes Orbiting a Sun-like star
- [54] B-O Demory, F Pozuelos, ... **F Dai**, et al., 2020, Astronomy & Astrophysics, 642, 21, [ADS](#)
A Super-Earth and a Sub-Neptune Orbiting the Bright, Quiet M3 Dwarf TOI-1266
- [55] G Nowak, E Palle, ... **F Dai**, et al., 2020, Monthly Notices of the Royal Astronomical Society, 497, 4, [ADS](#)

K2-280 b - a Low Density Warm Sub-Saturn Around a Mildly Evolved Star

- [56] M Esposito, D Armstrong, ..., **F Dai**, et al., 2019, *Astronomy & Astrophysics*, 623, 11 [ADS](#)
HD 219666 b: a Hot-Neptune from TESS Sector 1
- [57] J Korth, Sz Csizmadia, ..., **F Dai**, et al., 2019, *Monthly Notices of the Royal Astronomical Society*, 482, 2, [ADS](#)
K2-140b and K2-180b Characterization of a Hot Jupiter and a Mini Neptune from the K2 Mission
- [58] E Pale, G Nowak, ..., **F Dai**, et al., 2019, *Astronomy & Astrophysics*, 623, 10, [ADS](#)
Detection and Doppler monitoring of K2-285 (EPIC 246471491), a System of four Transiting Planets Smaller than Neptune
- [59] A Smith, Sz Csizmadia, ..., **F Dai**, et al., 2019, *Acta Astronomica*, 69, 2, [ADS](#)
K2-295 b and K2-237 b: Two Transiting Hot Jupiters
- [60] R Luque, G Nowak, ..., **F Dai**, et al., 2019, *Astronomy & Astrophysics*, 623, 9, [ADS](#)
Detection and Characterization of an Ultra-dense sub-Neptunian Planet Orbiting the Sun-like Star K2-292
- [61] S Kamiaka, O Benomar, ... **F Dai**, et al., 2019, *The Astronomical Journal*, 157, 4, [ADS](#)
The Misaligned Orbit of the Earth-sized Planet Kepler-408b
- [62] M Hjorth, A Justesen, ... **F Dai**, et al., 2019, *Monthly Notices of the Royal Astronomical Society*, 484, 3, [ADS](#)
K2-290: a Warm Jupiter and a Mini-Neptune in a Triple-star System
- [63] D Gandolfi, L Fossati, ... **F Dai**, et al., 2019, *The Astrophysical Journal Letters*, 876, 2, [ADS](#)
The Transiting Multi-planet System HD15337: Two Nearly Equal-mass Planets Straddling the Radius Gap
- [64] L Bouma, JN Winn, ... **F Dai**, et al., 2019, *The Astronomical Journal*, 157, 6, [ADS](#)
WASP-4b Arrived Early for the TESS Mission
- [65] Z Zhan, M Gunther, ... **F Dai**, et al., 2019, *The Astrophysical Journal*, 876, 2, [ADS](#)
Complex Rotational Modulation of Rapidly Rotating M Stars Observed with TESS
- [66] C Persson, Sz Csizmadia, ... **F Dai**, et al., 2019, *Astronomy & Astrophysics*, 628, 14, [ADS](#)
Greening of the Brown Dwarf Desert. EPIC 212036875 b - a 51 M_J object in a 5 day orbit around an F7 V star
- [67] S Rappaport, A Vanderburg, ... **F Dai**, et al., 2019, *Monthly Notices of the Royal Astronomical Society*, 488, 2, [ADS](#)
The Random Transiter EPIC 249706694/HD 139139
- [68] A Santerne, L Malavolta, ... **F Dai**, et al., 2019, Submitted to *Nature Astronomy*, [ADS](#)
An Extremely Low-density and Temperate Giant Exoplanet
- [69] E Pale, G Nowak, R Luque, D Hidalgo, O Barragan, J Prieto-Arranz, ... **F Dai**, et al., 2018, Submitted to *A&A* [ADS](#)
Detection and Doppler Monitoring of EPIC 246471491, a System of four Transiting Planets Smaller than Neptune
- [70] CM Persson, M Fridlund, O Barragan, **F Dai**, et al., 2018, *Astronomy & Astrophysics*, 618, 16, [ADS](#)
An Super-Earth in a 2.2 day orbit around the K5V star K2-216
- [71] JK Teske, S Wang, A Wolfgang, **F Dai**, et al., 2018, *The Astronomical Journal* 155 , 148, [ADS](#)
Magellan/PFS Radial Velocities of GJ 9827, a Late K dwarf at 30 pc with Three Transiting Super-Earths
- [72] J Prieto-Arranz, E Pale, ... **F Dai**, et al., 2018, *Astronomy & Astrophysics*, in press, [ADS](#)
Mass Determination of the 1: 3: 5 Near-resonant Planets Transiting GJ 9827 (K2-135)
- [73] JN Winn, EA Petigura, ... **F Dai**, et al., 2017, *The Astronomical Journal* 154 , 270, [ADS](#)
Constraints on the Obliquities of Kepler Planet-hosting Stars
- [74] D Gandolfi, O Barragn, ... **F Dai**, et al., 2017, *The Astronomical Journal* 154 , 123, [ADS](#)
The Transiting Multi-planet System HD 3167: A Super-Earth and a Mini-Neptune
- [75] A Smith, J Cabrera, ... **F Dai**, et al., 2017, *MNRAS*, 474, 5523, [ADS](#)
K2-137 b: an Earth-sized Planet in a 4.3-h Orbit Around an M-dwarf
- [76] KC Patra, JN Winn, ... **F Dai**, 2017, *The Astronomical Journal* 154 , 4, [ADS](#)
The Apparently Decaying Orbit of WASP-12b

- [77] G Nowak, E Palle, ... **F Dai**, et al., 2017, *The Astronomical Journal* 153 , 131, [ADS](#)
EPIC 219388192b An Inhabitant of the Brown Dwarf Desert in the Ruprecht 147 Open Cluster
- [78] N Narita, T Hirano, ... **F Dai**, et al., 2017, *Publications of the Astronomical Society of Japan* 69 , 29, [ADS](#)
The K2-ESPRINT project. VI. K2-105 b, a Hot Neptune around a Metal-rich G-dwarf
- [79] V Van Eylen, S Albrecht, ... **F Dai**, et al., 2016, *The Astronomical Journal* 152, 143, [ADS](#)
The K2-Esprint Project. V. A Short-period Giant Planet Orbiting a Subgiant Star
- [80] T Hirano, G Nowak, ... **F Dai**, et al., 2016, *The Astrophysical Journal* 825 , 53, [ADS](#)
The K2-ESPRINT Project IV. A Hot Jupiter in a Prograde Orbit with a Possible Stellar Companion
- [81] V Van Eylen, G Nowak, ...**F Dai**, et al., 2016, *The Astrophysical Journal* 820, 56, [ADS](#)
The K2-ESPRINT Project. II. Spectroscopic Follow-up of Three Exoplanet Systems from Campaign 1 of K2
- [82] T Hirano, A Fukui, ... **F Dai**, et al., 2016, *The Astrophysical Journal* 820 , 41, [ADS](#)
The K2-ESPRINT Project III: A Close-in Super-Earth around a Metal-rich Mid-M Dwarf
- [83] R Sanchis-Ojeda, S Rappaport, ... **F Dai**, et al., 2015, *The Astrophysical Journal* 812 , 112, [ADS](#)
The K2-ESPRINT Project. I. Discovery of the Disintegrating Rocky Planet K2-22b with a Cometary Head and Leading Tail
- [84] L Yu, JN Winn, ... **F Dai**, et al., 2015, *The Astrophysical Journal* 812 , 48, [ADS](#)
Tests of the Planetary Hypothesis for PTFO 8-8695b