

Michael P Fitzgerald

List of Publications by Year in descending order

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106
papers

5,133
citations

126907

33
h-index

98798

67
g-index

106
all docs

106
docs citations

106
times ranked

2917
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Images of an Exosolar Planet 25 Light-Years from Earth. <i>Science</i> , 2008, 322, 1345-1348.	12.6	701
2	First light of the Gemini Planet Imager. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12661-12666.	7.1	472
3	The Gemini Planet Imager Exoplanet Survey: Giant Planet and Brown Dwarf Demographics from 10 to 100 au. <i>Astronomical Journal</i> , 2019, 158, 13.	4.7	270
4	Searching for exoplanets using a microresonator astrocomb. <i>Nature Photonics</i> , 2019, 13, 25-30.	31.4	194
5	POLARIMETRY WITH THE GEMINI PLANET IMAGER: METHODS, PERFORMANCE AT FIRST LIGHT, AND THE CIRCUMSTELLAR RING AROUND HR 4796A. <i>Astrophysical Journal</i> , 2015, 799, 182.	4.5	139
6	STIS CORONAGRAPHIC IMAGING OF FOMALHAUT: MAIN BELT STRUCTURE AND THE ORBIT OF FOMALHAUT. <i>Astrophysical Journal</i> , 2013, 775, 56.	4.5	124
7	Characterizing 51 Eri b from 1 to 5 $\hat{1}$ / ₄ m: A Partly Cloudy Exoplanet. <i>Astronomical Journal</i> , 2017, 154, 10.	4.7	110
8	Detection of Exocometary CO within the 440 Myr Old Fomalhaut Belt: A Similar CO+CO ₂ Ice Abundance in Exocomets and Solar System Comets. <i>Astrophysical Journal</i> , 2017, 842, 9.	4.5	109
9	$\hat{1}$ / ₂ PICTORIS ^{â€™} INNER DISK IN POLARIZED LIGHT AND NEW ORBITAL PARAMETERS FOR $\hat{1}$ / ₂ PICTORIS b. <i>Astrophysical Journal</i> , 2015, 811, 18.	4.5	108
10	99 Herculis: host to a circumbinary polar-ring debris disc. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 421, 2264-2276.	4.4	102
11	Complex Spiral Structure in the HD 100546 Transitional Disk as Revealed by GPI and MagAO. <i>Astronomical Journal</i> , 2017, 153, 264.	4.7	99
12	Improving and Assessing Planet Sensitivity of the GPI Exoplanet Survey with a Forward Model Matched Filter. <i>Astrophysical Journal</i> , 2017, 842, 14.	4.5	96
13	THE ORBIT AND TRANSIT PROSPECTS FOR $\hat{1}$ / ₂ PICTORIS b CONSTRAINED WITH ONE MILLIARCSECOND ASTROMETRY. <i>Astronomical Journal</i> , 2016, 152, 97.	4.7	95
14	Dynamical Constraints on the HR 8799 Planets with GPI. <i>Astronomical Journal</i> , 2018, 156, 192.	4.7	95
15	$\hat{1}$ â€™2.4 $\hat{1}$ / ₄ m Near-IR Spectrum of the Giant Planet $\hat{1}$ / ₂ Pictoris b Obtained with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2017, 153, 182.	4.7	92
16	A Complete ALMA Map of the Fomalhaut Debris Disk. <i>Astrophysical Journal</i> , 2017, 842, 8.	4.5	89
17	Discovery of Extreme Asymmetry in the Debris Disk Surrounding HD 15115. <i>Astrophysical Journal</i> , 2007, 661, L85-L88.	4.5	83
18	First Scattered Light Images of Debris Disks around HD 53143 and HD 139664. <i>Astrophysical Journal</i> , 2006, 637, L57-L60.	4.5	81

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19	An Optical/Near-infrared Investigation of HD 100546 b with the Gemini Planet Imager and MagAO. <i>Astronomical Journal</i> , 2017, 153, 244.	4.7	81
20	GEMINI PLANET IMAGER SPECTROSCOPY OF THE HR 8799 PLANETS c AND d. <i>Astrophysical Journal Letters</i> , 2014, 794, L15.	8.3	80
21	DIRECT IMAGING OF AN ASYMMETRIC DEBRIS DISK IN THE HD 106906 PLANETARY SYSTEM. <i>Astrophysical Journal</i> , 2015, 814, 32.	4.5	79
22	ASTROMETRIC CONFIRMATION AND PRELIMINARY ORBITAL PARAMETERS OF THE YOUNG EXOPLANET 51 ERIDANI b WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2015, 814, L3.	8.3	77
23	Gemini Planet Imager observational calibrations I: Overview of the GPI data reduction pipeline. <i>Proceedings of SPIE</i> , 2014, , .	0.8	70
24	The AU Microscopii Debris Disk: Multiwavelength Imaging and Modeling. <i>Astrophysical Journal</i> , 2007, 670, 536-556.	4.5	66
25	Speckle Statistics in Adaptively Corrected Images. <i>Astrophysical Journal</i> , 2006, 637, 541-547.	4.5	64
26	Debris Disk Results from the Gemini Planet Imager Exoplanet Survey's Polarimetric Imaging Campaign. <i>Astronomical Journal</i> , 2020, 160, 24.	4.7	64
27	THE FIRST <i>H</i> -BAND SPECTRUM OF THE GIANT PLANET $\hat{1}^2$ PICTORIS b. <i>Astrophysical Journal Letters</i> , 2015, 798, L3.	8.3	61
28	DISCOVERY OF A SUBSTELLAR COMPANION TO THE NEARBY DEBRIS DISK HOST HR 2562. <i>Astrophysical Journal Letters</i> , 2016, 829, L4.	8.3	60
29	MODELING SELF-SUBTRACTION IN ANGULAR DIFFERENTIAL IMAGING: APPLICATION TO THE HD 32297 DEBRIS DISK. <i>Astrophysical Journal</i> , 2014, 780, 25.	4.5	58
30	FIRST SCATTERED-LIGHT IMAGE OF THE DEBRIS DISK AROUND HD 131835 WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2015, 815, L14.	8.3	54
31	Evidence That the Directly Imaged Planet HD 131399 Ab Is a Background Star. <i>Astronomical Journal</i> , 2017, 154, 218.	4.7	52
32	GPI Spectra of HR 8799 c, d, and e from 1.5 to 2.4 $\hat{1}/4$ m with KLIP Forward Modeling. <i>Astronomical Journal</i> , 2018, 155, 226.	4.7	50
33	<i>HUBBLE SPACE TELESCOPE</i> OPTICAL IMAGING OF THE ERODING DEBRIS DISK HD 61005. <i>Astrophysical Journal</i> , 2009, 707, 1098-1114.	4.5	47
34	HD 106906: A Case Study for External Perturbations of a Debris Disk. <i>Astrophysical Journal Letters</i> , 2017, 837, L6.	8.3	46
35	Benchmarking the calculation of stochastic heating and emissivity of dust grains in the context of radiative transfer simulations. <i>Astronomy and Astrophysics</i> , 2015, 580, A87.	5.1	43
36	GEMINI PLANET IMAGER OBSERVATIONS OF THE AU MICROSCOPII DEBRIS DISK: ASYMMETRIES WITHIN ONE ARCSECOND. <i>Astrophysical Journal Letters</i> , 2015, 811, L19.	8.3	41

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37	Detection and Bulk Properties of the HR 8799 Planets with High-resolution Spectroscopy. <i>Astronomical Journal</i> , 2021, 162, 148.	4.7	39
38	An overview of the NIRSPEC upgrade for the Keck II telescope. , 2018, , .		37
39	Gemini planet imager observational calibrations V: astrometry and distortion. <i>Proceedings of SPIE</i> , 2014, , .	0.8	34
40	An Exoâ€œKuiper Belt with an Extended Halo around HD 191089 in Scattered Light. <i>Astrophysical Journal</i> , 2019, 882, 64.	4.5	34
41	CARMA Millimeter-Wave Aperture Synthesis Imaging of the HD 32297 Debris Disk. <i>Astrophysical Journal</i> , 2008, 686, L25-L28.	4.5	33
42	BRINGING â€œTHE MOTHâ€œ TO LIGHT: A PLANET-SCULPTING SCENARIO FOR THE HD 61005 DEBRIS DISK. <i>Astronomical Journal</i> , 2016, 152, 85.	4.7	33
43	ORBITAL CONSTRAINTS ON THE Î² Pic INNER PLANET CANDIDATE WITH KECK ADAPTIVE OPTICS. <i>Astrophysical Journal</i> , 2009, 706, L41-L45.	4.5	32
44	Keck Planet Imager and Characterizer: a dedicated single-mode fiber injection unit for high-resolution exoplanet spectroscopy. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2021, 7, .	1.8	32
45	Discovery of an Extended Debris Disk around the F2 V Star HD 15745. <i>Astrophysical Journal</i> , 2007, 671, L161-L164.	4.5	29
46	A Ring of Warm Dust in the HD 32297 Debris Disk. <i>Astrophysical Journal</i> , 2007, 670, 557-564.	4.5	29
47	The Gemini Planet Imager Exoplanet Survey: Dynamical Mass of the Exoplanet Î² Pictoris b from Combined Direct Imaging and Astrometry. <i>Astronomical Journal</i> , 2020, 159, 71.	4.7	29
48	Multiband GPI Imaging of the HR 4796A Debris Disk. <i>Astrophysical Journal</i> , 2020, 898, 55.	4.5	29
49	A Possible Icy Kuiper Belt around HD 181327. <i>Astrophysical Journal</i> , 2008, 689, 539-544.	4.5	28
50	DYNAMICAL MASS MEASUREMENT OF THE YOUNG SPECTROSCOPIC BINARY V343 NORMAE AaAb RESOLVED WITH THE GEMINI PLANET IMAGER. <i>Astronomical Journal</i> , 2016, 152, 175.	4.7	28
51	Direct Imaging of the HD 35841 Debris Disk: A Polarized Dust Ring from Gemini Planet Imager and an Outer Halo from HST/STIS. <i>Astronomical Journal</i> , 2018, 156, 47.	4.7	28
52	THE PECULIAR DEBRIS DISK OF HD 111520 AS RESOLVED BY THE GEMINI PLANET IMAGER. <i>Astrophysical Journal</i> , 2016, 826, 147.	4.5	27
53	POINT SOURCE POLARIMETRY WITH THE GEMINI PLANET IMAGER: SENSITIVITY CHARACTERIZATION WITH T5.5 DWARF COMPANION HD 19467 B. <i>Astrophysical Journal</i> , 2016, 820, 111.	4.5	25
54	THE PDS 66 CIRCUMSTELLAR DISK AS SEEN IN POLARIZED LIGHT WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2016, 818, L15.	8.3	22

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55	Multiband Polarimetric Imaging of HR 4796A with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2020, 160, 79.	4.7	22
56	Characterizing and Improving the Data Reduction Pipeline for the Keck OSIRIS Integral Field Spectrograph. <i>Astronomical Journal</i> , 2019, 157, 75.	4.7	21
57	Gemini Planet Imager observational calibrations XI: pipeline improvements and enhanced calibrations after two years on sky. <i>Proceedings of SPIE</i> , 2016, , .	0.8	19
58	IMAGING AN 80 au RADIUS DUST RING AROUND THE F5V STAR HD 157587. <i>Astronomical Journal</i> , 2016, 152, 128.	4.7	19
59	The Gemini Planet Imager View of the HD 32297 Debris Disk. <i>Astronomical Journal</i> , 2020, 159, 251.	4.7	19
60	Performance of the integral field spectrograph for the Gemini Planet Imager. <i>Proceedings of SPIE</i> , 2012, , .	0.8	18
61	The integral field spectrograph for the Gemini planet imager. <i>Proceedings of SPIE</i> , 2014, , .	0.8	17
62	DISCOVERY OF RESOLVED DEBRIS DISK AROUND HD 131835. <i>Astrophysical Journal</i> , 2015, 802, 138.	4.5	17
63	Retrieving the C and O Abundances of HR 7672 AB: A Solar-type Primary Star with a Benchmark Brown Dwarf. <i>Astronomical Journal</i> , 2022, 163, 189.	4.7	17
64	An Updated Visual Orbit of the Directly Imaged Exoplanet 51 Eridani b and Prospects for a Dynamical Mass Measurement with Gaia. <i>Astronomical Journal</i> , 2020, 159, 1.	4.7	16
65	Gemini Planet Imager Spectroscopy of the Dusty Substellar Companion HD 206893 B. <i>Astronomical Journal</i> , 2021, 161, 5.	4.7	16
66	Integral Field Spectroscopy of the Low-mass Companion HD 984 B with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2017, 153, 190.	4.7	15
67	Revised astrometric calibration of the Gemini Planet Imager. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, 1.	1.8	15
68	GPI observational calibrations XIV: polarimetric contrasts and new data reduction techniques. <i>Proceedings of SPIE</i> , 2016, , .	0.8	15
69	The Gemini planet imager: first light and commissioning. <i>Proceedings of SPIE</i> , 2014, , .	0.8	14
70	Long-term evolution of the aerosol debris cloud produced by the 2009 impact on Jupiter. <i>Icarus</i> , 2011, 214, 462-476.	2.5	13
71	Gemini planet imager observational calibrations VII: on-sky polarimetric performance of the Gemini planet imager. <i>Proceedings of SPIE</i> , 2014, , .	0.8	13
72	A Deep Polarimetric Study of the Asymmetrical Debris Disk HD 106906. <i>Astrophysical Journal</i> , 2021, 915, 58.	4.5	12

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73	First Resolved Scattered-light Images of Four Debris Disks in Scorpius-Centaurus with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2020, 159, 31.	4.7	12
74	Imaging polarimetry with the Gemini Planet Imager. <i>Proceedings of SPIE</i> , 2010, , .	0.8	11
75	Design considerations of photonic lanterns for diffraction-limited spectrometry. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, A51.	2.1	10
76	The AIROPA software package: milestones for testing general relativity in the strong gravity regime with AO. <i>Proceedings of SPIE</i> , 2016, , .	0.8	8
77	Imaging the 44 au Kuiper Belt Analog Debris Ring around HD 141569A with GPI Polarimetry. <i>Astronomical Journal</i> , 2020, 159, 53.	4.7	8
78	The Mysterious Lives of Speckles. I. Residual Atmospheric Speckle Lifetimes in Ground-based Coronagraphs. <i>Publications of the Astronomical Society of the Pacific</i> , 2021, 133, 104504.	3.1	7
79	Upgrade of the detector in the integral field spectrograph OSIRIS at the W. M. Keck Observatory. <i>Proceedings of SPIE</i> , 2016, , .	0.8	6
80	Gemini planet imager observational calibration XII: photometric calibration in the polarimetry mode. <i>Proceedings of SPIE</i> , 2016, , .	0.8	6
81	Asymmetries in adaptive optics point spread functions. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.8	6
82	Performance modeling of an upgraded NIRSPEC on Keck. <i>Proceedings of SPIE</i> , 2014, , .	0.8	5
83	Detection of a Low-mass Stellar Companion to the Accelerating A2IV Star HR 1645. <i>Astronomical Journal</i> , 2019, 158, 226.	4.7	5
84	The planetary systems imager: 2-5 micron channel. , 2018, , .		5
85	Wavefront control architecture and expected performance for the TMT Planetary Systems Imager. , 2018, , .		5
86	Modeling instrumental field-dependent aberrations in the NIRC2 instrument on the Keck II telescope. <i>Proceedings of SPIE</i> , 2014, , .	0.8	4
87	Modeling anisoplanatism in the Keck II laser guide star AO system. <i>Proceedings of SPIE</i> , 2012, , .	0.8	3
88	Polarimetric performance of the Gemini Planet Imager. <i>Proceedings of SPIE</i> , 2012, , .	0.8	3
89	Optical design of the slit-viewing camera for the NIRSPEC upgrade. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
90	Performance of the Gemini Planet Imager Non-redundant Mask and Spectroscopy of Two Close-separation Binaries: HR 2690 and HD 142527. <i>Astronomical Journal</i> , 2019, 157, 249.	4.7	3

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91	First light of a holographic aperture mask: Observation at the Keck OSIRIS Imager. <i>Astronomy and Astrophysics</i> , 2021, 649, A168.	5.1	3
92	High contrast observations of circumstellar disks with the Gemini Planet Imager's polarimetry mode. , 2017, , .		3
93	Off-axis PSF reconstruction for integral field spectrograph: instrumental aberrations and application to Keck/OSIRIS data. , 2018, , .		3
94	DAVINCI: a high-performance imager and integral field spectrograph for the W. M. Keck Observatory's next-generation adaptive optics facility. , 2010, , .		2
95	New developments in instrumentation at the W. M. Keck Observatory. , 2014, , .		2
96	Point-spread function reconstruction for integral-field spectrograph data. , 2018, , .		2
97	Innovations and advances in instrumentation at the W. M. Keck Observatory. , 2018, , .		2
98	Polarimetry with the Gemini Planet Imager: Instrument Characterization and Future Science. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 58-59.	0.0	1
99	HD 165054: An Astrometric Calibration Field for High-contrast Imagers in Baade's Window. <i>Astronomical Journal</i> , 2020, 159, 244.	4.7	1
100	New developments in instrumentation at the W. M. Keck Observatory. , 2016, , .		1
101	Modeling the transmission and thermal emission in a pupil image behind the Keck II adaptive optics system. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
102	Real-time estimation and correction of quasi-static aberrations in ground-based high contrast imaging systems with high frame-rates. , 2018, , .		1
103	Upgrade and characterization of the OSIRIS imager detector. , 2018, , .		1
104	Liger for next-generation Keck adaptive optics: design of opto-mechanical test chamber. , 2020, , .		1
105	Using Non-negative Matrix Factorization to Improve Calibration of the Keck OSIRIS Integral Field Spectrograph. <i>Publications of the Astronomical Society of the Pacific</i> , 2022, 134, 064504.	3.1	1
106	Liger for next-generation Keck AO: filter wheel and pupil design. , 2020, , .		0