

Dimitri Mawet

List of Publications by Year in descending order

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126
papers

3,545
citations

117625

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h-index

189892

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all docs

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docs citations

126
times ranked

2924
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving Planet Detection with Disk Modeling: Keck/NIRC2 Imaging of the HD 34282 Single-armed Protoplanetary Disk. <i>Astrophysical Journal Letters</i> , 2022, 924, L4.	8.3	4
2	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
3	$\hat{\mu}$ -deep Probabilistic Inference ($\hat{\mu}$ -DPI): Efficient Uncertainty Quantification from Exoplanet Astrometry to Black Hole Feature Extraction. <i>Astrophysical Journal</i> , 2022, 932, 99.	4.5	6
4	Spiral Arm Pattern Motion in the SAO 206462 Protoplanetary Disk. <i>Astrophysical Journal Letters</i> , 2021, 906, L9.	8.3	16
5	Three New Late-type Stellar Companions to Very Dusty WISE Debris Disks Identified with SPHERE Imaging. <i>Astronomical Journal</i> , 2021, 161, 78.	4.7	2
6	The McDonald Accelerating Stars Survey (MASS): White Dwarf Companions Accelerating the Sun-like Stars 12 Psc and HD 159062. <i>Astronomical Journal</i> , 2021, 161, 106.	4.7	16
7	Enhancing Direct Exoplanet Spectroscopy with Apodizing and Beam Shaping Optics. <i>Publications of the Astronomical Society of the Pacific</i> , 2021, 133, 024503.	3.1	5
8	Infrared spectropolarimetric detection of intrinsic polarization from a core-collapse supernova. <i>Nature Astronomy</i> , 2021, 5, 544-551.	10.1	10
9	Potential of commercial SiN MPW platforms for developing mid/high-resolution integrated photonic spectrographs for astronomy. <i>Applied Optics</i> , 2021, 60, D15.	1.8	12
10	Focal-Plane Phase-Mask Coronagraphy. , 2021, , 357-364.		0
11	Discovery of an Edge-on Circumstellar Debris Disk around BD+45 $\hat{\text{A}}^{\circ}$ 598: A Newly Identified Member of the $\hat{\text{I}}^2$ Pictoris Moving Group. <i>Astrophysical Journal</i> , 2021, 912, 115.	4.5	11
12	A Layered Debris Disk around M Star TWA 7 in Scattered Light. <i>Astrophysical Journal</i> , 2021, 914, 95.	4.5	15
13	Enabling high-res exoplanet spectroscopy at Keck. <i>Nature Astronomy</i> , 2021, 5, 723-723.	10.1	1
14	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
15	Characterization of HD 206893 B from Near- to Thermal-infrared. <i>Astrophysical Journal</i> , 2021, 917, 62.	4.5	2
16	High resolution spectroscopy of directly imaged exoplanets with KPIC. , 2021, , .		3
17	Broadband vortex fiber nulling: high-dispersion exoplanet science at the diffraction limit. , 2021, , .		3
18	Detection and Bulk Properties of the HR 8799 Planets with High-resolution Spectroscopy. <i>Astronomical Journal</i> , 2021, 162, 148.	4.7	39

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19	Keck/OSIRIS Pa ² High-contrast Imaging and Updated Constraints on PDS 70b. <i>Astronomical Journal</i> , 2021, 162, 214.	4.7	9
20	Constraining the Orbit and Mass of epsilon Eridani b with Radial Velocities, Hipparcos IAD-Gaia DR2 Astrometry, and Multiepoch Vortex Coronagraphy Upper Limits. <i>Astronomical Journal</i> , 2021, 162, 181.	4.7	17
21	PlanetEvidence: Planet or Noise?. <i>Astronomical Journal</i> , 2021, 162, 304.	4.7	3
22	Searching for Planets Orbiting \pm Cen A with the James Webb Space Telescope. <i>Publications of the Astronomical Society of the Pacific</i> , 2020, 132, 015002.	3.1	14
23	Keck/NIRC2 L TM -band Imaging of Jovian-mass Accreting Protoplanets around PDS 70. <i>Astronomical Journal</i> , 2020, 159, 263.	4.7	51
24	Detection of Polarization due to Cloud Bands in the Nearby Luhman 16 Brown Dwarf Binary. <i>Astrophysical Journal</i> , 2020, 894, 42.	4.5	23
25	Diffuser-assisted Infrared Transit Photometry for Four Dynamically Interacting Kepler Systems. <i>Astronomical Journal</i> , 2020, 159, 108.	4.7	40
26	Constraints on Metastable Helium in the Atmospheres of WASP-69b and WASP-52b with Ultranarrowband Photometry. <i>Astronomical Journal</i> , 2020, 159, 278.	4.7	34
27	Obliquity Constraints on an Extrasolar Planetary-mass Companion. <i>Astronomical Journal</i> , 2020, 159, 181.	4.7	37
28	High-contrast Demonstration of an Apodized Vortex Coronagraph. <i>Astronomical Journal</i> , 2020, 159, 79.	4.7	6
29	Design, pointing control, and on-sky performance of the mid-infrared vortex coronagraph for the VLT/NEAR experiment. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, .	1.8	5
30	Adaptive optics with an infrared pyramid wavefront sensor at Keck. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, .	1.8	35
31	Near-infrared Imaging of a Spiral in the CQ Tau Disk. <i>Astronomical Journal</i> , 2020, 159, 118.	4.7	15
32	A Search for Polarized Thermal Emission from Directly Imaged Exoplanets and Brown Dwarf Companions to Nearby Stars. <i>Astronomical Journal</i> , 2020, 160, 286.	4.7	7
33	Dynamical Evidence of a Spiral Arm [€] driving Planet in the MWC 758 Protoplanetary Disk. <i>Astrophysical Journal Letters</i> , 2020, 898, L38.	8.3	24
34	Early High-contrast Imaging Results with Keck/NIRC2-PWFS: The SR 21 Disk. <i>Astronomical Journal</i> , 2020, 160, 283.	4.7	5
35	Kojima-11b Is a Mildly Cold Neptune around the Brightest Microlensing Host Star. <i>Astronomical Journal</i> , 2019, 158, 206.	4.7	18
36	Reference Star Differential Imaging of Close-in Companions and Circumstellar Disks with the NIRC2 Vortex Coronagraph at the W. M. Keck Observatory. <i>Astronomical Journal</i> , 2019, 157, 118.	4.7	48

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37	Deep Exploration of μ Eridani with Keck Ms-band Vortex Coronagraphy and Radial Velocities: Mass and Orbital Parameters of the Giant Exoplanet*. <i>Astronomical Journal</i> , 2019, 157, 33.	4.7	53
38	Supernova 2017eaw: Molecule and Dust Formation from Infrared Observations. <i>Astrophysical Journal</i> , 2019, 873, 127.	4.5	22
39	Discovery of a White Dwarf Companion to HD 159062. <i>Astrophysical Journal</i> , 2019, 878, 50.	4.5	12
40	WIRC+Pol: A Low-resolution Near-infrared Spectropolarimeter. <i>Publications of the Astronomical Society of the Pacific</i> , 2019, 131, 025001.	3.1	24
41	The Keck Planet Imager and Characterizer: demonstrating advanced exoplanet characterization techniques for future extremely large telescopes (Conference Presentation). , 2019, , .		5
42	Status of the Keck Planet Imager and Characterizer phase II development. , 2019, , .		2
43	Numerical modeling of the Habex coronagraph. , 2019, , .		7
44	The high-contrast spectroscopy testbed for segmented telescopes (HCST): new wavefront control demonstrations. , 2019, , .		1
45	WISE J072003.20-084651.2B is a Massive T Dwarf $\hat{=}$ $\hat{=}$. <i>Astronomical Journal</i> , 2019, 158, 174.	4.7	27
46	Seeing the light through diamonds: Direct detection of extrasolar planet. , 2019, , .		0
47	Vortex fiber nulling for exoplanet observations I Experimental demonstration in monochromatic light. <i>Optics Letters</i> , 2019, 44, 2204.	3.3	14
48	Vortex fiber nulling for exoplanet observations: conceptual design, theoretical performance, and initial scientific yield predictions. , 2019, , .		8
49	The vortex fiber nulling mode of the Keck Planet Imager and Characterizer (KPIC). , 2019, , .		5
50	A multi-object spectrograph using single-mode fibers with a coronagraph: progress towards laboratory results on the high-contrast testbed for segmented telescopes. , 2019, , .		1
51	Scalar vortex coronagraph mask design and predicted performance. , 2019, , .		8
52	A New Standard for Assessing the Performance of High Contrast Imaging Systems. <i>Astronomical Journal</i> , 2018, 155, 19.	4.7	35
53	HD 104860 and HD 192758: Two Debris Disks Newly Imaged in Scattered Light with the Hubble Space Telescope. <i>Astrophysical Journal</i> , 2018, 854, 53.	4.5	20
54	EPIC 203868608: A Low-mass Quadruple Star System in the Upper Scorpius OB Association. <i>Astrophysical Journal</i> , 2018, 865, 141.	4.5	9

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55	Efficient Spectroscopy of Exoplanets at Small Angular Separations with Vortex Fiber Nulling. <i>Astrophysical Journal</i> , 2018, 867, 143.	4.5	19
56	Detecting Water in the Atmosphere of HR 8799 c with L-band High-dispersion Spectroscopy Aided by Adaptive Optics. <i>Astronomical Journal</i> , 2018, 156, 272.	4.7	25
57	A Deep Search for Planets in the Inner 15 au around Vega. <i>Astronomical Journal</i> , 2018, 156, 214.	4.7	4
58	The KELT Follow-up Network and Transit False-positive Catalog: Pre-vetted False Positives for TESS. <i>Astronomical Journal</i> , 2018, 156, 234.	4.7	46
59	Characterizing the Performance of the NIRC2 Vortex Coronagraph at W. M. Keck Observatory. <i>Astronomical Journal</i> , 2018, 156, 156.	4.7	40
60	A Bayesian Framework for Exoplanet Direct Detection and Non-detection. <i>Astronomical Journal</i> , 2018, 156, 196.	4.7	17
61	Constraining the presence of giant planets in two-belt debris disc systems with VLT/SPHERE direct imaging and dynamical arguments. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 2757-2783.	4.4	11
62	Vortex coronagraphs for the Habitable Exoplanet Imaging Mission concept: theoretical performance and telescope requirements. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2018, 4, 1.	1.8	38
63	Baseline requirements for detecting biosignatures with the HabEx and LLIVOIR mission concepts. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2018, 4, 1.	1.8	14
64	High-contrast spectroscopy testbed for segmented telescopes. , 2018, , .		4
65	Low wind effect on VLT/SPHERE: impact, mitigation strategy, and results. , 2018, , .		12
66	Characterization of microdot apodizers for imaging exoplanets with next-generation space telescopes. , 2018, , .		4
67	Fast linearized coronagraph optimizer (FALCO) IV: coronagraph design survey for obstructed and segmented apertures. , 2018, , .		6
68	NEAR: New Earths in the Alpha Cen Region (bringing VISIR as a "visiting instrument" to ESO-VLT-UT4). , 2018, , .		2
69	Keck Planet Imager and Characterizer (KPIC): status update. , 2018, , .		8
70	Adaptive optics with an infrared Pyramid wavefront sensor. , 2018, , .		17
71	WIRC+Pol: low-resolution near-infrared spectropolarimeter. , 2018, , .		1
72	The planetary systems imager: 2-5 micron channel. , 2018, , .		5

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73	High-contrast spectroscopy testbed for Segmented Telescopes: instrument overview and development progress. , 2018, , .		2
74	First Scattered-light Images of the Gas-rich Debris Disk around 49 Ceti. Astrophysical Journal Letters, 2017, 834, L12.	8.3	36
75	PLANETS AROUND LOW-MASS STARS (PALMS). VI. DISCOVERY OF A REMARKABLY RED PLANETARY-MASS COMPANION TO THE AB DOR MOVING GROUP CANDIDATE 2MASS J22362452+4751425*. Astronomical Journal, 2017, 153, 18.	4.7	58
76	KELT-16b: A Highly Irradiated, Ultra-short Period Hot Jupiter Nearing Tidal Disruption. Astronomical Journal, 2017, 153, 97.	4.7	58
77	KELT-11b: A Highly Inflated Sub-Saturn Exoplanet Transiting the V = 8 Subgiant HD 93396. Astronomical Journal, 2017, 153, 215.	4.7	61
78	VIP: Vortex Image Processing Package for High-contrast Direct Imaging. Astronomical Journal, 2017, 154, 7.	4.7	129
79	Time-resolved High Spectral Resolution Observation of 2MASSW J0746425+200032AB. Astrophysical Journal, 2017, 838, 35.	4.5	5
80	No Difference in Orbital Parameters of RV-detected Giant Planets between 0.1 and 5 au in Single versus Multi-stellar Systems. Astronomical Journal, 2017, 153, 242.	4.7	41
81	Two Small Transiting Planets and a Possible Third Body Orbiting HD 106315. Astronomical Journal, 2017, 153, 255.	4.7	51
82	CHARACTERIZATION OF THE INNER DISK AROUND HD 141569 A FROM KECK/NIRC2 L-BAND VORTEX CORONAGRAPHY. Astronomical Journal, 2017, 153, 44.	4.7	59
83	Observing Exoplanets with High Dispersion Coronagraphy. I. The Scientific Potential of Current and Next-generation Large Ground and Space Telescopes. Astronomical Journal, 2017, 153, 183.	4.7	99
84	Deep Imaging Search for Planets Forming in the TW Hya Protoplanetary Disk with the Keck/NIRC2 Vortex Coronagraph. Astronomical Journal, 2017, 154, 73.	4.7	61
85	NEAR-INFRARED EMISSION SPECTRUM OF WASP-103B USING HUBBLE SPACE TELESCOPE/WIDE FIELD CAMERA 3*. Astronomical Journal, 2017, 153, 34.	4.7	58
86	A Direct Imaging Survey of Spitzer-detected Debris Disks: Occurrence of Giant Planets in Dusty Systems. Astronomical Journal, 2017, 154, 245.	4.7	85
87	Observing Exoplanets with High-dispersion Coronagraphy. II. Demonstration of an Active Single-mode Fiber Injection Unit. Astrophysical Journal, 2017, 838, 92.	4.5	82
88	The First Scattered-light Image of the Debris Disk around the Sco-Cen Target HD 129590. Astrophysical Journal Letters, 2017, 843, L12.	8.3	28
89	Performance and sensitivity of vortex coronagraphs on segmented space telescopes. , 2017, , .		11
90	Optimization of coronagraph design for segmented aperture telescopes. , 2017, , .		5

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91	A fiber injection unit for the Keck Planet Imager and Characterizer (KPIC). , 2017, , .		15
92	Baseline requirements for detecting biosignatures with the HabEx and LUVOIR mission concepts. , 2017, , .		3
93	Noise-weighted Angular Differential Imaging. Research Notes of the AAS, 2017, 1, 30.	0.7	11
94	SEARCHING FOR SCATTERERS: HIGH-CONTRAST IMAGING OF YOUNG STARS HOSTING WIDE-SEPARATION PLANETARY-MASS COMPANIONS. Astrophysical Journal, 2016, 827, 100.	4.5	54
95	The SHARDDS survey: First resolved image of the HDâ€™%114082 debris disk in the Lower Centaurus Crux with SPHERE. Astronomy and Astrophysics, 2016, 596, L4.	5.1	36
96	FRIENDS OF HOT JUPITERS. IV. STELLAR COMPANIONS BEYOND 50 au MIGHT FACILITATE GIANT PLANET FORMATION, BUT MOST ARE UNLIKELY TO CAUSE KOZAIâ€™LIDOV MIGRATION. Astrophysical Journal, 2016, 827, 8.	4.5	123
97	The Habitable Exoplanet (HabEx) Imaging Mission: preliminary science drivers and technical requirements. Proceedings of SPIE, 2016, , .	0.8	66
98	Three years of harvest with the vector vortex coronagraph in the thermal infrared. Proceedings of SPIE, 2016, , .	0.8	37
99	Laboratory demonstration of a dual-stage vortex coronagraph. Optics Communications, 2016, 379, 64-67.	2.1	4
100	Tackling down the low wind effect on SPHERE instrument. Proceedings of SPIE, 2016, , .	0.8	22
101	POINT SOURCE POLARIMETRY WITH THE GEMINI PLANET IMAGER: SENSITIVITY CHARACTERIZATION WITH T5.5 DWARF COMPANION HD 19467 B. Astrophysical Journal, 2016, 820, 111.	4.5	25
102	Stellar Double Coronagraph: A Multistage Coronagraphic Platform at Palomar Observatory. Publications of the Astronomical Society of the Pacific, 2016, 128, 075003.	3.1	13
103	KELT-10b: the first transiting exoplanet from the KELT-South survey â€™ a hot sub-Jupiter transiting a $V < i > = 10.7$ early G-star. Monthly Notices of the Royal Astronomical Society, 2016, 459, 4281-4298.	4.4	38
104	Apodized vortex coronagraph designs for segmented aperture telescopes. Proceedings of SPIE, 2016, , .	0.8	17
105	EARLY RESULTS FROM VLT SPHERE: LONG-SLIT SPECTROSCOPY OF 2MASS 0122â€™2439 B, A YOUNG COMPANION NEAR THE DEUTERIUM BURNING LIMIT. Astrophysical Journal Letters, 2015, 805, L10.	8.3	42
106	DISCOVERY OF A LOW-MASS COMPANION AROUND HR 3549. Astrophysical Journal, 2015, 811, 103.	4.5	24
107	Active correction of aperture discontinuities (ACAD) for space telescope pupils: a parametric analysis. Proceedings of SPIE, 2015, , .	0.8	8
108	RESOLVING THE DELTA ANDROMEDAE SPECTROSCOPIC BINARY WITH DIRECT IMAGING. Astrophysical Journal, 2015, 809, 11.	4.5	9

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109	Fast-moving features in the debris disk around AU Microscopii. <i>Nature</i> , 2015, 526, 230-232.	27.8	95
110	Eyeing up a Jupiter-like exoplanet. <i>Science</i> , 2015, 350, 39-40.	12.6	0
111	Optimized focal and pupil plane masks for vortex coronagraphs on telescopes with obstructed apertures. <i>Proceedings of SPIE</i> , 2015, , .	0.8	4
112	Archival legacy investigations of circumstellar environments: overview and first results. <i>Proceedings of SPIE</i> , 2014, , .	0.8	30
113	DISCOVERY OF A COMPANION CANDIDATE IN THE HD 169142 TRANSITION DISK AND THE POSSIBILITY OF MULTIPLE PLANET FORMATION. <i>Astrophysical Journal Letters</i> , 2014, 792, L23.	8.3	142
114	Characterizing instrumental effects on polarization at a Nasmyth focus using NaCo. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
115	Flows of gas through a protoplanetary gap. <i>Nature</i> , 2013, 493, 191-194.	27.8	304
116	Improving vector vortex waveplates for high-contrast coronagraphy. <i>Optics Express</i> , 2013, 21, 8205.	3.4	55
117	Debris Disk Science with the Palomar ExAO System: First Results. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 72-73.	0.0	1
118	First High-Angular Resolution λ^2 Images of the $\hat{\iota}^2$ Pictoris Debris Disc with the VLT / NaCo. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 350-351.	0.0	0
119	SPICES: spectro-polarimetric imaging and characterization of exoplanetary systems. <i>Experimental Astronomy</i> , 2012, 34, 355-384.	3.7	47
120	Review of small-angle coronagraphic techniques in the wake of ground-based second-generation adaptive optics systems. <i>Proceedings of SPIE</i> , 2012, , .	0.8	71
121	Improved high-contrast imaging with on-axis telescopes using a multistage vortex coronagraph. <i>Optics Letters</i> , 2011, 36, 1506.	3.3	64
122	Imaging faint companions very close to stars. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 551-552.	0.0	1
123	Formation and evolution of planetary systems: the impact of high-angular resolution optical techniques. <i>Astronomy and Astrophysics Review</i> , 2010, 18, 317-382.	25.5	32
124	Darwinâ€™an experimental astronomy mission to search for extrasolar planets. <i>Experimental Astronomy</i> , 2009, 23, 435-461.	3.7	74
125	Fresnel rhombs as achromatic phase shifters for infrared nulling interferometry. <i>Optics Express</i> , 2007, 15, 12850.	3.4	29
126	Use of subwavelength gratings in TIR incidence as achromatic phase shifters. <i>Optics Express</i> , 2005, 13, 8686.	3.4	8