

Dimitri Mawet

List of Publications by Year in descending order

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126
papers

3,545
citations

117625

34
h-index

189892

50
g-index

126
all docs

126
docs citations

126
times ranked

2924
citing authors

#	ARTICLE	IF	CITATIONS
1	Flows of gas through a protoplanetary gap. <i>Nature</i> , 2013, 493, 191-194.	27.8	304
2	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
3	VIP: Vortex Image Processing Package for High-contrast Direct Imaging. <i>Astronomical Journal</i> , 2017, 154, 7.	4.7	129
4	FRIENDS OF HOT JUPITERS. IV. STELLAR COMPANIONS BEYOND 50 au MIGHT FACILITATE GIANT PLANET FORMATION, BUT MOST ARE UNLIKELY TO CAUSE KOZAI-LIDOV MIGRATION. <i>Astrophysical Journal</i> , 2016, 827, 8.	4.5	123
5	Observing Exoplanets with High Dispersion Coronagraphy. I. The Scientific Potential of Current and Next-generation Large Ground and Space Telescopes. <i>Astronomical Journal</i> , 2017, 153, 183.	4.7	99
6	Fast-moving features in the debris disk around AU Microscopii. <i>Nature</i> , 2015, 526, 230-232.	27.8	95
7	A Direct Imaging Survey of Spitzer-detected Debris Disks: Occurrence of Giant Planets in Dusty Systems. <i>Astronomical Journal</i> , 2017, 154, 245.	4.7	85
8	Observing Exoplanets with High-dispersion Coronagraphy. II. Demonstration of an Active Single-mode Fiber Injection Unit. <i>Astrophysical Journal</i> , 2017, 838, 92.	4.5	82
9	Darwin—an experimental astronomy mission to search for extrasolar planets. <i>Experimental Astronomy</i> , 2009, 23, 435-461.	3.7	74
10	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
11	The Habitable Exoplanet (HabEx) Imaging Mission: preliminary science drivers and technical requirements. <i>Proceedings of SPIE</i> , 2016, , .	0.8	66
12	Improved high-contrast imaging with on-axis telescopes using a multistage vortex coronagraph. <i>Optics Letters</i> , 2011, 36, 1506.	3.3	64
13	KELT-11b: A Highly Inflated Sub-Saturn Exoplanet Transiting the $V = 8$ Subgiant HD 93396. <i>Astronomical Journal</i> , 2017, 153, 215.	4.7	61
14	Deep Imaging Search for Planets Forming in the TW Hya Protoplanetary Disk with the Keck/NIRC2 Vortex Coronagraph. <i>Astronomical Journal</i> , 2017, 154, 73.	4.7	61
15	CHARACTERIZATION OF THE INNER DISK AROUND HD 141569 A FROM KECK/NIRC2 L-BAND VORTEX CORONAGRAPHY. <i>Astronomical Journal</i> , 2017, 153, 44.	4.7	59
16	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*. <i>Astronomical Journal</i> , 2017, 153, 18.	4.7	58
17	KELT-16b: A Highly Irradiated, Ultra-short Period Hot Jupiter Nearing Tidal Disruption. <i>Astronomical Journal</i> , 2017, 153, 97.	4.7	58
18	NEAR-INFRARED EMISSION SPECTRUM OF WASP-103B USING HUBBLE SPACE TELESCOPE/WIDE FIELD CAMERA 3*. <i>Astronomical Journal</i> , 2017, 153, 34.	4.7	58

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19	Improving vector vortex waveplates for high-contrast coronagraphy. <i>Optics Express</i> , 2013, 21, 8205.	3.4	55
20	SEARCHING FOR SCATTERERS: HIGH-CONTRAST IMAGING OF YOUNG STARS HOSTING WIDE-SEPARATION PLANETARY-MASS COMPANIONS. <i>Astrophysical Journal</i> , 2016, 827, 100.	4.5	54
21	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
22	Two Small Transiting Planets and a Possible Third Body Orbiting HD 106315. <i>Astronomical Journal</i> , 2017, 153, 255.	4.7	51
23	Keck/NIRC2 L ^â -band Imaging of Jovian-mass Accreting Protoplanets around PDS 70. <i>Astronomical Journal</i> , 2020, 159, 263.	4.7	51
24	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
25	SPICES: spectro-polarimetric imaging and characterization of exoplanetary systems. <i>Experimental Astronomy</i> , 2012, 34, 355-384.	3.7	47
26	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
27	EARLY RESULTS FROM VLT SPHERE: LONG-SLIT SPECTROSCOPY OF 2MASS 0122â€“2439 B, A YOUNG COMPANION NEAR THE DEUTERIUM BURNING LIMIT. <i>Astrophysical Journal Letters</i> , 2015, 805, L10.	8.3	42
28	No Difference in Orbital Parameters of RV-detected Giant Planets between 0.1 and 5 au in Single versus Multi-stellar Systems. <i>Astronomical Journal</i> , 2017, 153, 242.	4.7	41
29	Characterizing the Performance of the NIRC2 Vortex Coronagraph at W. M. Keck Observatory. <i>Astronomical Journal</i> , 2018, 156, 156.	4.7	40
30	Diffuser-assisted Infrared Transit Photometry for Four Dynamically Interacting Kepler Systems. <i>Astronomical Journal</i> , 2020, 159, 108.	4.7	40
31	Detection and Bulk Properties of the HR 8799 Planets with High-resolution Spectroscopy. <i>Astronomical Journal</i> , 2021, 162, 148.	4.7	39
32	KELT-10b: the first transiting exoplanet from the KELT-South survey â€“ a hot sub-Jupiter transiting a $V = 10.7$ early G-star. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 4281-4298.	4.4	38
33	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
34	Three years of harvest with the vector vortex coronagraph in the thermal infrared. <i>Proceedings of SPIE</i> , 2016, , .	0.8	37
35	Obliquity Constraints on an Extrasolar Planetary-mass Companion. <i>Astronomical Journal</i> , 2020, 159, 181.	4.7	37
36	The SHARDDS survey: First resolved image of the HDâ€“114082 debris disk in the Lower Centaurus Crux with SPHERE. <i>Astronomy and Astrophysics</i> , 2016, 596, L4.	5.1	36

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37	First Scattered-light Images of the Gas-rich Debris Disk around 49 Ceti. <i>Astrophysical Journal Letters</i> , 2017, 834, L12.	8.3	36
38	A New Standard for Assessing the Performance of High Contrast Imaging Systems. <i>Astronomical Journal</i> , 2018, 155, 19.	4.7	35
39	Adaptive optics with an infrared pyramid wavefront sensor at Keck. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, .	1.8	35
40	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
41	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
42	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
43	Archival legacy investigations of circumstellar environments: overview and first results. <i>Proceedings of SPIE</i> , 2014, , .	0.8	30
44	Fresnel rhombs as achromatic phase shifters for infrared nulling interferometry. <i>Optics Express</i> , 2007, 15, 12850.	3.4	29
45	The First Scattered-light Image of the Debris Disk around the Sco-Cen Target HD 129590. <i>Astrophysical Journal Letters</i> , 2017, 843, L12.	8.3	28
46	WISE J072003.20-084651.2B is a Massive T Dwarf $\hat{\sim}$ $\hat{\sim}$. <i>Astronomical Journal</i> , 2019, 158, 174.	4.7	27
47	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
48	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
49	DISCOVERY OF A LOW-MASS COMPANION AROUND HR 3549. <i>Astrophysical Journal</i> , 2015, 811, 103.	4.5	24
50	WIRC+Pol: A Low-resolution Near-infrared Spectropolarimeter. <i>Publications of the Astronomical Society of the Pacific</i> , 2019, 131, 025001.	3.1	24
51	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
52	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
53	Tackling down the low wind effect on SPHERE instrument. <i>Proceedings of SPIE</i> , 2016, , .	0.8	22
54	Supernova 2017eaw: Molecule and Dust Formation from Infrared Observations. <i>Astrophysical Journal</i> , 2019, 873, 127.	4.5	22

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55	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
56	Efficient Spectroscopy of Exoplanets at Small Angular Separations with Vortex Fiber Nulling. <i>Astrophysical Journal</i> , 2018, 867, 143.	4.5	19
57	Kojima-1Lb Is a Mildly Cold Neptune around the Brightest Microlensing Host Star. <i>Astronomical Journal</i> , 2019, 158, 206.	4.7	18
58	A Bayesian Framework for Exoplanet Direct Detection and Non-detection. <i>Astronomical Journal</i> , 2018, 156, 196.	4.7	17
59	Apodized vortex coronagraph designs for segmented aperture telescopes. <i>Proceedings of SPIE</i> , 2016, , .	0.8	17
60	Adaptive optics with an infrared Pyramid wavefront sensor. , 2018, , .		17
61	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
62	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
63	Spiral Arm Pattern Motion in the SAO 206462 Protoplanetary Disk. <i>Astrophysical Journal Letters</i> , 2021, 906, L9.	8.3	16
64	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
65	A Layered Debris Disk around M Star TWA 7 in Scattered Light. <i>Astrophysical Journal</i> , 2021, 914, 95.	4.5	15
66	A fiber injection unit for the Keck Planet Imager and Characterizer (KPIC). , 2017, , .		15
67	Near-infrared Imaging of a Spiral in the CQ Tau Disk. <i>Astronomical Journal</i> , 2020, 159, 118.	4.7	15
68	Searching for Planets Orbiting $\hat{\pm}$ Cen A with the James Webb Space Telescope. <i>Publications of the Astronomical Society of the Pacific</i> , 2020, 132, 015002.	3.1	14
69	Baseline requirements for detecting biosignatures with the HabEx and LIVOIR mission concepts. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2018, 4, 1.	1.8	14
70	Vortex fiber nulling for exoplanet observations I Experimental demonstration in monochromatic light. <i>Optics Letters</i> , 2019, 44, 2204.	3.3	14
71	Stellar Double Coronagraph: A Multistage Coronagraphic Platform at Palomar Observatory. <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 075003.	3.1	13
72	Discovery of a White Dwarf Companion to HD 159062. <i>Astrophysical Journal</i> , 2019, 878, 50.	4.5	12

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73	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
74	Low wind effect on VLT/SPHERE: impact, mitigation strategy, and results. , 2018, , .		12
75	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
76	Discovery of an Edge-on Circumstellar Debris Disk around BD+45° 598: A Newly Identified Member of the β Pictoris Moving Group. <i>Astrophysical Journal</i> , 2021, 912, 115.	4.5	11
77	Performance and sensitivity of vortex coronagraphs on segmented space telescopes. , 2017, , .		11
78	Noise-weighted Angular Differential Imaging. <i>Research Notes of the AAS</i> , 2017, 1, 30.	0.7	11
79	Infrared spectropolarimetric detection of intrinsic polarization from a core-collapse supernova. <i>Nature Astronomy</i> , 2021, 5, 544-551.	10.1	10
80	RESOLVING THE DELTA ANDROMEDAE SPECTROSCOPIC BINARY WITH DIRECT IMAGING. <i>Astrophysical Journal</i> , 2015, 809, 11.	4.5	9
81	EPIC 203868608: A Low-mass Quadruple Star System in the Upper Scorpius OB Association. <i>Astrophysical Journal</i> , 2018, 865, 141.	4.5	9
82	Keck/OSIRIS Pa λ High-contrast Imaging and Updated Constraints on PDS 70b. <i>Astronomical Journal</i> , 2021, 162, 214.	4.7	9
83	Use of subwavelength gratings in TIR incidence as achromatic phase shifters. <i>Optics Express</i> , 2005, 13, 8686.	3.4	8
84	Active correction of aperture discontinuities (ACAD) for space telescope pupils: a parametric analysis. <i>Proceedings of SPIE</i> , 2015, , .	0.8	8
85	Keck Planet Imager and Characterizer (KPIC): status update. , 2018, , .		8
86	Vortex fiber nulling for exoplanet observations: conceptual design, theoretical performance, and initial scientific yield predictions. , 2019, , .		8
87	Scalar vortex coronagraph mask design and predicted performance. , 2019, , .		8
88	Numerical modeling of the Habex coronagraph. , 2019, , .		7
89	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
90	High-contrast Demonstration of an Apodized Vortex Coronagraph. <i>Astronomical Journal</i> , 2020, 159, 79.	4.7	6

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91	Fast linearized coronagraph optimizer (FALCO) IV: coronagraph design survey for obstructed and segmented apertures. , 2018, , .		6
92	\hat{I} -deep Probabilistic Inference (\hat{I} -DPI): Efficient Uncertainty Quantification from Exoplanet Astrometry to Black Hole Feature Extraction. Astrophysical Journal, 2022, 932, 99.	4.5	6
93	Time-resolved High Spectral Resolution Observation of 2MASSW J0746425+200032AB. Astrophysical Journal, 2017, 838, 35.	4.5	5
94	Enhancing Direct Exoplanet Spectroscopy with Apodizing and Beam Shaping Optics. Publications of the Astronomical Society of the Pacific, 2021, 133, 024503.	3.1	5
95	Design, pointing control, and on-sky performance of the mid-infrared vortex coronagraph for the VLT/NEAR experiment. Journal of Astronomical Telescopes, Instruments, and Systems, 2020, 6, .	1.8	5
96	Optimization of coronagraph design for segmented aperture telescopes. , 2017, , .		5
97	The planetary systems imager: 2-5 micron channel. , 2018, , .		5
98	The Keck Planet Imager and Characterizer: demonstrating advanced exoplanet characterization techniques for future extremely large telescopes (Conference Presentation). , 2019, , .		5
99	The vortex fiber nulling mode of the Keck Planet Imager and Characterizer (KPIC). , 2019, , .		5
100	Early High-contrast Imaging Results with Keck/NIRC2-PWFS: The SR 21 Disk. Astronomical Journal, 2020, 160, 283.	4.7	5
101	Optimized focal and pupil plane masks for vortex coronagraphs on telescopes with obstructed apertures. Proceedings of SPIE, 2015, , .	0.8	4
102	Laboratory demonstration of a dual-stage vortex coronagraph. Optics Communications, 2016, 379, 64-67.	2.1	4
103	A Deep Search for Planets in the Inner 15 au around Vega. Astronomical Journal, 2018, 156, 214.	4.7	4
104	High-contrast spectroscopy testbed for segmented telescopes. , 2018, , .		4
105	Characterization of microdot apodizers for imaging exoplanets with next-generation space telescopes. , 2018, , .		4
106	Improving Planet Detection with Disk Modeling: Keck/NIRC2 Imaging of the HD 34282 Single-armed Protoplanetary Disk. Astrophysical Journal Letters, 2022, 924, L4.	8.3	4
107	High resolution spectroscopy of directly imaged exoplanets with KPIC. , 2021, , .		3
108	Broadband vortex fiber nulling: high-dispersion exoplanet science at the diffraction limit. , 2021, , .		3

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109	Baseline requirements for detecting biosignatures with the HabEx and LUVOIR mission concepts. , 2017, , .		3
110	PlanetEvidence: Planet or Noise?. <i>Astronomical Journal</i> , 2021, 162, 304.	4.7	3
111	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
112	Characterization of HD 206893 B from Near- to Thermal-infrared. <i>Astrophysical Journal</i> , 2021, 917, 62.	4.5	2
113	NEAR: New Earths in the Alpha Cen Region (bringing VISIR as a "visiting instrument" to ESO-VLT-UT4). , 2018, , .		2
114	High-contrast spectroscopy testbed for Segmented Telescopes: instrument overview and development progress. , 2018, , .		2
115	Status of the Keck Planet Imager and Characterizer phase II development. , 2019, , .		2
116	Imaging faint companions very close to stars. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 551-552.	0.0	1
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	Characterizing instrumental effects on polarization at a Nasmyth focus using NaCo. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
119	Enabling high-res exoplanet spectroscopy at Keck. <i>Nature Astronomy</i> , 2021, 5, 723-723.	10.1	1
120	WIRC+Pol: low-resolution near-infrared spectropolarimeter. , 2018, , .		1
121	The high-contrast spectroscopy testbed for segmented telescopes (HCST): new wavefront control demonstrations. , 2019, , .		1
122	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
123	First High-Angular Resolution λ^2 Images of the $\hat{\rho}^2$ Pictoris Debris Disc with the VLT / NaCo. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 350-351.	0.0	0
124	Eyeing up a Jupiter-like exoplanet. <i>Science</i> , 2015, 350, 39-40.	12.6	0
125	Focal-Plane Phase-Mask Coronagraphy. , 2021, , 357-364.		0
126	Seeing the light through diamonds: Direct detection of extrasolar planet. , 2019, , .		0