

Denis Defrère

List of Publications by Year in descending order

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127
papers

3,237
citations

159585

30
h-index

189892

50
g-index

127
all docs

127
docs citations

127
times ranked

2332
citing authors

#	ARTICLE	IF	CITATIONS
1	Accreting protoplanets in the LkCa 15 transition disk. <i>Nature</i> , 2015, 527, 342-344.	27.8	249
2	197 CANDIDATES AND 104 VALIDATED PLANETS IN K2'S FIRST FIVE FIELDS. <i>Astrophysical Journal, Supplement Series</i> , 2016, 226, 7.	7.7	177
3	VIP: Vortex Image Processing Package for High-contrast Direct Imaging. <i>Astronomical Journal</i> , 2017, 154, 7.	4.7	129
4	<i>Darwin</i>â€”A Mission to Detect and Search for Life on Extrasolar Planets. <i>Astrobiology</i> , 2009, 9, 1-22.	3.0	112
5	DIRECTLY IMAGED L-T TRANSITION EXOPLANETS IN THE MID-INFRARED[,]. <i>Astrophysical Journal</i> , 2014, 792, 17.	4.5	112
6	A near-infrared interferometric survey of debris disk stars. <i>Astronomy and Astrophysics</i> , 2007, 475, 243-250.	5.1	95
7	A near-infrared interferometric survey of debris-disc stars. <i>Astronomy and Astrophysics</i> , 2013, 555, A104.	5.1	94
8	The HOSTS Surveyâ€”Exozodiacal Dust Measurements for 30 Stars. <i>Astronomical Journal</i> , 2018, 155, 194.	4.7	78
9	Darwinâ€”an experimental astronomy mission to search for extrasolar planets. <i>Experimental Astronomy</i> , 2009, 23, 435-461.	3.7	74
10	THE W. M. KECK OBSERVATORY INFRARED VORTEX CORONAGRAPH AND A FIRST IMAGE OF HIP 79124 B. <i>Astronomical Journal</i> , 2017, 153, 43.	4.7	74
11	A near-infrared interferometric survey of debris-disk stars. <i>Astronomy and Astrophysics</i> , 2014, 570, A128.	5.1	73
12	NULLING DATA REDUCTION AND ON-SKY PERFORMANCE OF THE LARGE BINOCULAR TELESCOPE INTERFEROMETER. <i>Astrophysical Journal</i> , 2016, 824, 66.	4.5	70
13	Discovery of a point-like source and a third spiral arm in the transition disk around the Herbig Ae star MWC 758. <i>Astronomy and Astrophysics</i> , 2018, 611, A74.	5.1	70
14	CONSTRAINING THE EXOZODIACAL LUMINOSITY FUNCTION OF MAIN-SEQUENCE STARS: COMPLETE RESULTS FROM THE KECK NULLER MID-INFRARED SURVEYS. <i>Astrophysical Journal</i> , 2014, 797, 119.	4.5	69
15	THE LEECH EXOPLANET IMAGING SURVEY: CHARACTERIZATION OF THE COLDEST DIRECTLY IMAGED EXOPLANET, GJ 504 b, AND EVIDENCE FOR SUPERSTELLAR METALLICITY*. <i>Astrophysical Journal</i> , 2016, 817, 166.	4.5	68
16	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
17	DOES THE DEBRIS DISK AROUND HD 32297 CONTAIN COMETARY GRAINS?., <i>Astrophysical Journal</i> , 2014, 783, 21.	4.5	57
18	The HOSTS Survey for Exozodiacal Dust: Observational Results from the Complete Survey. <i>Astronomical Journal</i> , 2020, 159, 177.	4.7	57

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19	An interferometric study of the Fomalhaut inner debris disk. <i>Astronomy and Astrophysics</i> , 2013, 555, A146.	5.1	54
20	A near-infrared interferometric survey of debris disc stars. <i>Astronomy and Astrophysics</i> , 2008, 487, 1041-1054.	5.1	53
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	HUNTING FOR PLANETS IN THE HL TAU DISK. <i>Astrophysical Journal Letters</i> , 2015, 812, L38.	8.3	52
23	Keck/NIRC2 L^* -band Imaging of Jovian-mass Accreting Protoplanets around PDS 70. <i>Astronomical Journal</i> , 2020, 159, 263.	4.7	51
24	The LEECH Exoplanet Imaging Survey. Further constraints on the planet architecture of the HR 8799 system. <i>Astronomy and Astrophysics</i> , 2015, 576, A133.	5.1	50
25	Nulling interferometry: impact of exozodiacal clouds on the performance of future life-finding space missions. <i>Astronomy and Astrophysics</i> , 2010, 509, A9.	5.1	49
26	Hot exozodiacal dust resolved around Vega with IOTA/IONIC. <i>Astronomy and Astrophysics</i> , 2011, 534, A5.	5.1	49
27	TWO SMALL TEMPERATE PLANETS TRANSITING NEARBY M DWARFS IN K2 CAMPAIGNS 0 AND 1*. <i>Astrophysical Journal</i> , 2016, 818, 87.	4.5	47
28	Characterization of the gaseous companion ρ Andromedae b. <i>Astronomy and Astrophysics</i> , 2014, 562, A111.	5.1	44
29	The LEECH Exoplanet Imaging Survey: Limits on Planet Occurrence Rates under Conservative Assumptions. <i>Astronomical Journal</i> , 2018, 156, 286.	4.7	44
30	FIRST-LIGHT LBT NULLING INTERFEROMETRIC OBSERVATIONS: WARM EXOZODIACAL DUST RESOLVED WITHIN A FEW AU OF ρ Crv. <i>Astrophysical Journal</i> , 2015, 799, 42.	4.5	42
31	THE LEECH EXOPLANET IMAGING SURVEY: ORBIT AND COMPONENT MASSES OF THE INTERMEDIATE-AGE, LATE-TYPE BINARY NO UMa*. <i>Astrophysical Journal</i> , 2016, 818, 1.	4.5	41
32	THE INNER DEBRIS STRUCTURE IN THE FOMALHAUT PLANETARY SYSTEM*. <i>Astrophysical Journal</i> , 2016, 818, 45.	4.5	40
33	Overview of LBTI: a multipurpose facility for high spatial resolution observations. <i>Proceedings of SPIE</i> , 2016, , .	0.8	37
34	Three years of harvest with the vector vortex coronagraph in the thermal infrared. <i>Proceedings of SPIE</i> , 2016, , .	0.8	37
35	Hot circumstellar material resolved around ρ Pic with VLT/PIONIER. <i>Astronomy and Astrophysics</i> , 2012, 546, L9.	5.1	31
36	A near-infrared interferometric survey of debris-disc stars. <i>Astronomy and Astrophysics</i> , 2016, 595, A44.	5.1	31

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37	Fresnel rhombs as achromatic phase shifters for infrared nulling interferometry. Optics Express, 2007, 15, 12850.	3.4	29
38	Exozodiacal clouds: hot and warm dust around main sequence stars. The Astronomical Review, 2017, 13, 69-111.	4.0	28
39	The path towards high-contrast imaging with the VLTI: the Hi-5 project. Experimental Astronomy, 2018, 46, 475-495.	3.7	28
40	EXO-ZODI MODELING FOR THE LARGE BINOCULAR TELESCOPE INTERFEROMETER. Astrophysical Journal, Supplement Series, 2015, 216, 23.	7.7	27
41	Multi-phase volcanic resurfacing at Loki Patera on Io. Nature, 2017, 545, 199-202.	27.8	26
42	Space-based infrared interferometry to study exoplanetary atmospheres. Experimental Astronomy, 2018, 46, 543-560.	3.7	25
43	TARGET SELECTION FOR THE LBTI EXOZODI KEY SCIENCE PROGRAM. Astrophysical Journal, Supplement Series, 2015, 216, 24.	7.7	23
44	Searching for faint companions with VLTI/PIONIER. Astronomy and Astrophysics, 2014, 570, A127.	5.1	22
45	PEGASE, an infrared interferometer to study stellar environments and low mass companions around nearby stars. Experimental Astronomy, 2009, 23, 403-434.	3.7	21
46	Atmospheric characterization of terrestrial exoplanets in the mid-infrared: biosignatures, habitability, and diversity. Experimental Astronomy, 2022, 54, 1197-1221.	3.7	21
47	Exoplanet science with a space-based mid-infrared nulling interferometer. , 2018, , .		21
48	CHARACTERIZATION OF THE BENCHMARK BINARY NLTT 33370. Astrophysical Journal, 2014, 783, 27.	4.5	20
49	Large binocular telescope interferometer adaptive optics: on-sky performance and lessons learned. Proceedings of SPIE, 2014, , .	0.8	20
50	SPATIALLY RESOLVED M-BAND EMISSION FROM IOâ€™S LOKI PATERAâ€™S FIZEAU IMAGING AT THE 22.8 m LBT. Astronomical Journal, 2015, 149, 175.	4.7	20
51	Delay Compensation for Real Time Disturbance Estimation at Extremely Large Telescopes. IEEE Transactions on Control Systems Technology, 2017, 25, 1384-1393.	5.2	20
52	IMPACT OF<i>Ë</i>_{Earth} ON THE CAPABILITIES OF AFFORDABLE SPACE MISSIONS TO DETECT BIOSIGNATURES ON EXTRASOLAR PLANETS. Astrophysical Journal, 2015, 808, 194.	4.5	18
53	Precise radial velocities of giant stars. Astronomy and Astrophysics, 2016, 595, A55.	5.1	18
54	First light with ALES: A 2-5 micron adaptive optics Integral Field Spectrograph for the LBT. Proceedings of SPIE, 2015, , .	0.8	17

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55	The Search for Worlds Like Our Own. <i>Astrobiology</i> , 2010, 10, 5-17.	3.0	16
56	MODELS OF THE Î CORVI DEBRIS DISK FROM THE KECK INTERFEROMETER, SPITZER, AND HERSCHEL. <i>Astrophysical Journal</i> , 2016, 817, 165.	4.5	16
57	MID-INFRARED HIGH-CONTRAST IMAGING OF HD 114174 B: AN APPARENT AGE DISCREPANCY IN A "SIRIUS-LIKE" BINARY SYSTEM. <i>Astrophysical Journal Letters</i> , 2014, 783, L25.	8.3	15
58	Nulling interferometry: performance comparison between space and ground-based sites for exozodiacal disc detection. <i>Astronomy and Astrophysics</i> , 2008, 490, 435-445.	5.1	13
59	Direct imaging of exoEarths embedded in clumpy debris disks. <i>Proceedings of SPIE</i> , 2012, , .	0.8	12
60	L'-band AGPM vector vortex coronagraph's first light on LBTI/LMIRCam. <i>Proceedings of SPIE</i> , 2014, , .	0.8	12
61	High contrast imaging at the LBT: the LEECH exoplanet imaging survey. <i>Proceedings of SPIE</i> , 2014, , .	0.8	11
62	Commissioning the LBTI for use as a nulling interferometer and coherent imager. , 2014, , .		11
63	Operation and performance of the mid-infrared camera, NOMIC, on the Large Binocular Telescope. <i>Proceedings of SPIE</i> , 2014, , .	0.8	11
64	Co-phasing the Large Binocular Telescope: status and performance of LBTI/PHASECam. <i>Proceedings of SPIE</i> , 2014, , .	0.8	10
65	Imaging protoplanets: observing transition disks with non-redundant masking. <i>Proceedings of SPIE</i> , 2016, , .	0.8	10
66	Making high-accuracy null depth measurements for the LBTI exozodi survey. <i>Proceedings of SPIE</i> , 2016, , .	0.8	10
67	An H-band Vector Vortex Coronagraph for the Subaru Coronagraphic Extreme Adaptive Optics System. <i>Publications of the Astronomical Society of the Pacific</i> , 2018, 130, 035001.	3.1	10
68	The LEECH Exoplanet Imaging Survey. Further constraints on the planet architecture of the HR 8799 system (Corrigendum). <i>Astronomy and Astrophysics</i> , 2015, 579, C2.	5.1	10
69	Fizeau interferometric imaging of Io volcanism with LBTI/LMIRcam. <i>Proceedings of SPIE</i> , 2014, , .	0.8	9
70	A near-infrared interferometric survey of debris-disk stars. <i>Astronomy and Astrophysics</i> , 2021, 651, A45.	5.1	9
71	Detection of Near-infrared Water Ice at the Surface of the (Pre)Transitional Disk of AB Aur: Informing Icy Grain Abundance, Composition, and Size. <i>Astronomical Journal</i> , 2022, 163, 145.	4.7	9
72	OVMS-plus at the LBT: disturbance compensation simplified. <i>Proceedings of SPIE</i> , 2016, , .	0.8	8

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73	Constraints on HD 113337 fundamental parameters and planetary system. <i>Astronomy and Astrophysics</i> , 2019, 627, A44.	5.1	7
74	Simultaneous water vapor and dry air optical path length measurements and compensation with the large binocular telescope interferometer. <i>Proceedings of SPIE</i> , 2016, , .	0.8	6
75	Commissioning and first light results of an L'-band vortex coronagraph with the Keck II adaptive optics NIRC2 science instrument. <i>Proceedings of SPIE</i> , 2016, , .	0.8	6
76	Searching for Atmospheric Bioindicators in Planets around the Two Nearby Stars, Proxima Centauri and Epsilon Eridani – Test Cases for Retrieval of Atmospheric Gases with Infrared Spectroscopy. <i>Astrobiology</i> , 2019, 19, 797-810.	3.0	6
77	The HOSTS survey for exo-zodiacal dust: preliminary results and future prospects. , 2018, , .		6
78	The LBTI Fizeau imager – II. Sensitivity of the PSF and the MTF to adaptive optics errors and to piston errors. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 3288-3297.	4.4	5
79	The HOSTS Survey: Evidence for an Extended Dust Disk and Constraints on the Presence of Giant Planets in the Habitable Zone of $\hat{\iota}^2$ Leo. <i>Astronomical Journal</i> , 2021, 161, 186.	4.7	5
80	Exoplanet detection yield of a space-based Bracewell interferometer from small to medium satellites. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, .	1.8	5
81	Resolving Io – Volcanoes from a Mutual Event Observation at the Large Binocular Telescope. <i>Planetary Science Journal</i> , 2021, 2, 227.	3.6	5
82	The 4m international liquid mirror telescope (ILMT). , 2006, , .		4
83	The LBTI hunt for observable signatures of terrestrial systems (HOSTS) survey: a key NASA science program on the road to exoplanet imaging missions. <i>Proceedings of SPIE</i> , 2014, , .	0.8	4
84	The LBTI Fizeau imager – I. Fundamental gain in high-contrast imaging. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 2544-2553.	4.4	4
85	Prospects for the characterisation of exo-zodiacal dust with the VLTI. <i>Experimental Astronomy</i> , 2018, 46, 401-411.	3.7	4
86	Polar-interferometry: what can be learnt from the IOTA/IONIC experiment. <i>Proceedings of SPIE</i> , 2008, , .	0.8	3
87	Enabling the direct detection of earth-sized exoplanets with the LBTI HOSTS project: a progress report. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
88	Direct imaging of Earth-like planets: why we care about exozodis. <i>Proceedings of SPIE</i> , 2010, , .	0.8	2
89	LEECH: A 100 Night Exoplanet Imaging Survey at the LBT. <i>Proceedings of the International Astronomical Union</i> , 2013, 8, 70-71.	0.0	2
90	The VORTEX project: first results and perspectives. <i>Proceedings of SPIE</i> , 2014, , .	0.8	2

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91	Exoplanet science with the LBTI: instrument status and plans. Proceedings of SPIE, 2015, , .	0.8	2
92	The path to interferometry in space. Proceedings of SPIE, 2016, , .	0.8	2
93	A recent history of science cases for optical interferometry. Experimental Astronomy, 2018, 46, 389-399.	3.7	2
94	Interferometric Space Missions for Exoplanet Science: Legacy of Darwin/TPF. , 2018, , 1229-1255.		2
95	Implementing multiwavelength fringe tracking for the Large Binocular Telescope Interferometer's phase sensor, PHASECam. Journal of Astronomical Telescopes, Instruments, and Systems, 2020, 6, 1.	1.8	2
96	Characterizing the atmosphere of Proxima b with a space-based mid-infrared nulling interferometer. , 2018, , .		2
97	Image-plane fringe tracker for adaptive-optics assisted long baseline interferometry. , 2018, , .		2
98	Overview and prospects of the LBTI beyond the completed HOSTS survey. , 2020, , .		2
99	A two-band approach to \hat{n} phase error corrections with LBTI's PHASECam. , 2018, , .		2
100	Large Binocular Telescope Search for Companions and Substructures in the (Pre)transitional Disk of AB Aurigae. Astrophysical Journal, 2022, 926, 71.	4.5	2
101	Unveiling exozodiacal light. Physics Today, 2022, 75, 46-52.	0.3	2
102	Potential of space-based infrared Bracewell interferometers for planet detection. , 2007, , .		1
103	Earth-like planets: science performance predictions for future nulling interferometry missions. , 2008, , .		1
104	Potential of balloon payloads for in flight validation of direct and nulling interferometry concepts. Proceedings of SPIE, 2010, , .	0.8	1
105	The planar optics phase sensor: a study for the VLTI 2nd generation fringe tracker. , 2010, , .		1
106	Studying hot exozodiacal dust with near-infrared interferometry. , 2012, , .		1
107	The Large Binocular Telescope Interferometer & Adaptive Optics System: On-sky Performance and Results. Proceedings of the International Astronomical Union, 2013, 8, 26-27.	0.0	1
108	Unraveling the Mystery of Exozodiacal Dust. Proceedings of the International Astronomical Union, 2013, 8, 338-339.	0.0	1

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109	Interferometric Space Missions for Exoplanet Science: Legacy of Darwin/TPF. , 2017, , 1-27.		1
110	Science case for 1 mas spectro-imaging in the near-infrared. , 2008, , .		0
111	High dynamic range interferometric observations of exozodiacal discs: performance comparison between ground, space, and Antarctica. Proceedings of SPIE, 2008, , .	0.8	0
112	Exozodiacal discs with ALADDIN: how faint can we detect them?. EAS Publications Series, 2010, 40, 257-262.	0.3	0
113	Keck Interferometer Nuller science highlights. Proceedings of SPIE, 2012, , .	0.8	0
114	Parasitic interference in classical and nulling stellar interferometry. Proceedings of SPIE, 2012, , .	0.8	0
115	Parasitic interference in nulling interferometry. Monthly Notices of the Royal Astronomical Society, 2013, 431, 1286-1295.	4.4	0
116	Searching for Faint Exozodiacal Disks: Keck Results and LBTI Status. Proceedings of the International Astronomical Union, 2013, 8, 332-333.	0.0	0
117	Unveiling new stellar companions from the PIONIER exozodi survey. , 2014, , .		0
118	Pioneer Anomaly: What Can We Learn from LISA?. Astrophysics and Space Science Library, 2008, , 605-629.	2.7	0
119	Planet formation imager: project update. , 2018, , .		0
120	Hi-5: a potential high-contrast thermal near-infrared imager for the VLTI. , 2018, , .		0
121	Development of a space-based nulling interferometer to detect and characterize exoplanets. , 2019, , .		0
122	Towards the development of mid-infrared integrated optics in the renewed context of high-contrast interferometry. , 2020, , .		0
123	Performance study of interferometric small-sats to detect exoplanets: updated exoplanet yield and application to nearby exoplanets. , 2020, , .		0
124	Review and scientific prospects of high-contrast optical stellar interferometry. , 2020, , .		0
125	MARVEL, a four-telescope array for high-precision radial-velocity monitoring. , 2020, , .		0
126	Preparatory studies for a mid-infrared nulling interferometry experiment at cryogenic conditions. , 2020, , .		0

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127	Optimizing MARVEL for the radial velocity follow up of TESS and PLATO transiting exoplanets. , 2020, , .		0