Domenico Bonaccini Calia

List of Publications by Year
in descending order

		567281	377865
96	1,576	15	34
papers	citations	h-index	g-index

96	96	96	1377
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of isoplanatic high resolution stellar fields by the StarFinder code. Astronomy and Astrophysics, 2000, 147, 335-346.	2.1	315
2	150 W highly-efficient Raman fiber laser. Optics Express, 2009, 17, 23678.	3.4	189
3	50W CW visible laser source at 589nm obtained via frequency doubling of three coherently combined narrow-band Raman fibre amplifiers. Optics Express, 2010, 18, 8540.	3.4	147
4	25 W Raman-fiber-amplifier-based 589 nm laser for laser guide star. Optics Express, 2009, 17, 19021.	3.4	122
5	Optimization of cw sodium laser guide star efficiency. Astronomy and Astrophysics, 2010, 510, A20.	5.1	79
6	<title>StarFinder: an IDL GUI-based code to analyze crowded fields with isoplanatic correcting PSF fitting</title>. , 2000, , .		78
7	Multiwatts narrow linewidth fiber Raman amplifiers. Optics Express, 2008, 16, 10927.	3.4	62
8	High power narrowband 589nm frequency doubled fibre laser source. Optics Express, 2009, 17, 14687.	3.4	49
9	Magnetometry with mesospheric sodium. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3522-3525.	7.1	37
10	Remote sensing of geomagnetic fields and atomic collisions in the mesosphere. Nature Communications, 2018, 9, 3981.	12.8	32
11	The Four-Laser Guide Star Facility: Design considerations and system implementation. Advanced Optical Technologies, 2014, 3, 345-361.	1.7	23
12	Dependence of sodium laser guide star photon return on the geomagnetic field. Astronomy and Astrophysics, 2009, 501, 793-799.	5.1	21
13	Statistics of the sodium layer parameters at low geographic latitude and its impact on adaptive-optics sodium laser guide star characteristics. Astronomy and Astrophysics, 2010, 511, A31.	5.1	21
14	<title>ESO VLT laser guide star facility</title>. , 2002, , .		20
15	Adaptive Optics on a 3.6-Meter Telescope. The ADONIS System.. Experimental Astronomy, 1997, 7, 285-292.	3.7	18
16	The ESO transportable LGS Unit for measurements of the LGS photon return and other experiments. , 2012, , .		16
17	ARNICA, the Arcetri Near-Infrared Camera. Publications of the Astronomical Society of the Pacific, 1996, 108, 364.	3.1	16
18	Rayleigh Beacon Adaptive Optics Imaging of ADS 9731: Measurements of the Isoplanatic Field of View. Astrophysical Journal, 1995, 450, 369.	4.5	16

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19	Lithium niobate double channel Fabry-Perot interferometer for solar corona uses. Applied Optics, 1988, 27, 5095.	2.1	15
20	Physical optics modeling and optimization of laser guide star propagation. Proceedings of SPIE, 2008, , .	0.8	15
21	Adaptive optics for ESO VLT interferometer. , 1998, , .		14
22	SINFONI: a near-infrared AO-assisted integral field spectrometer for the VLT. , 1998, , .		14
23	Pushing technologies: single-photon avalanche diode arrays. , 2004, , .		13
24	High-power 938-nm cladding pumped fiber laser. , 2003, 4974, 75.		12
25	Manufacturing of the ESO adaptive optics facility. Proceedings of SPIE, 2010, , .	0.8	11
26	Simulations of pulsed sodium laser guide stars: an overview. , 2012, , .		11
27	VLT laser guide star facility. , 2003, , .		10
28	39 W narrow linewidth Raman fiber amplifier with frequency doubling to 26.5 W at 589 nm. , 2009, , .		10
29	Polarization-driven spin precession of mesospheric sodium atoms. Optics Letters, 2018, 43, 5825.	3.3	10
30	Adaptive Optics Imaging at 1â€“5 Microns on Large Telescopes: The COMIC Camera for ADONIS. Publications of the Astronomical Society of the Pacific, 1998, 110, 1087-1097.	3.1	9
31	AFIRE: fiber Raman laser for laser guide star adaptive optics. , 2006, , .		9
32	Laser guide star return flux simulations based on observed sodium density profiles. , 2010, , .		9
33	ESO adaptive optics facility progress report. Proceedings of SPIE, 2012, , .	0.8	9
34	Frequency chirped continuous-wave sodium laser guide stars: modeling and optimization. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1208.	2.1	8
35	<title>MACAO and its application for the VLT interferometer</title>. , 2000, , .		7
36	Laser-guide-star-related activities at ESO. , 2004, , .		7

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37	Laser guide stars for optical free-space communications. Proceedings of SPIE, 2017, , .	0.8	7
38	Adaptive optics wavefront corrector using addressable liquid-crystal retarders II. , 1992, , .		6
39	Multi-watt 589-nm Na D 2 -line generation via frequency doubling of a Raman fiber amplifier: a source for LGS-assisted AO. , 2006, 6272, 1366.		6
40	Detection and Implications of Laser-Induced Raman Scattering at Astronomical Observatories. Physical Review X, 2017, 7, .	8.9	6
41	<title>Adaptive optics wavefront corrector using addressable liquid crystal retarders</title>. , 1990, 1334, 89.		5
42	Fiber Raman laser development for multiple sodium laser guide star adaptive optics. , 2003, , .		5
43	PM fiber lasers at 589nm: a 20W transportable laser system for LGS return flux studies. Proceedings of SPIE, 2010, , .	0.8	5
44	Diode-seeded fiber-based sodium laser guide stars ready for deployment. , 2010, , .		5
45	Comparison between observation and simulation of sodium LGS return flux with a 20W CW laser on Tenerife. Proceedings of SPIE, 2016, , .	0.8	5
46	STRAP for the VLT instruments. , 1997, , .		4
47	Cone-effect-free adaptive optics laser guide star development for the ELTs. , 2004, , .		4
48	Laser guide star pointing camera for ESO LGS Facilities. , 2014, , .		4
49	<title>Novel avalanche photodiode for adaptive optics</title>. , 1994, 2201, 650.		3
50	Does the outer scale help adaptive optics or is Kolmogorov gentler. , 1998, , .		3
51	Deconvolution of ADONIS images. , 1998, , .		3
52	<title>Single-mode fiber relay for the ESO laser guide star facility</title>. , 2000, 4007, 258.		3
53	ESO adaptive optics facility progress and first laboratory test results. , 2014, , .		3
54	Raman-scattered laser guide-star photons to monitor the scatter of astronomical telescope mirrors. Astronomy and Astrophysics, 2018, 618, L7.	5.1	3

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55	<title>Fabry-Perot tunable filter for the visible and near IR using nematic liquid crystals</title>. , 1990, 1334, 221.		2
56	<title>Optical design for interferometry with the Large Binocular Telescope</title>. , 1994, , .		2
57	Deconvolution of adaptive optics near-infrared system (ADONIS) images. , 1997, 3126, 68.		2
58	Performance of the ESO AO system, ADONIS, at the La Silla 3.6-m telescope. , 1997, 3126, 589.		2
59	<title>AVES: an adaptive optics visual echelle spectrograph for the VLT</title>. , 1998, 3355, 105.		2
60	Laser guide star facility for the ESO VLT. , 1998, , .		2
61	Fiber Raman laser for sodium guide star. , 1998, 3353, 330.		2
62	<title>Fiber Raman laser development for multiconjugate adaptive optics with sodium laser guide stars</title>. , 2002, 4494, 271.		2
63	Design of a narrow band 589 nm laser by direct Raman shift in single mode fiber. , 2006, 6272, 1375.		2
64	Spada: An Array of Spad Detectors For Astrophysical Applications. Experimental Astronomy, 2006, 19, 163-168.	3.7	2
65	Effect of the geomagnetic field on the intensity of sodium laser guide stars. , 2008, , .		2
66	Measuring line-of-sight sodium density structure using laser guide stars. Monthly Notices of the Royal Astronomical Society, 2020, 494, 2798-2808.	4.4	2
67	The first light of the Solar Activity MOF Monitor Telescope (SAMM). Journal of Space Weather and Space Climate, 2021, 11, 22.	3.3	2
68	ELT-scale elongated LGS wavefront sensing: on-sky results. Astronomy and Astrophysics, 2021, 649, A158.	5.1	2
69	Laser pointing camera: a valuable tool for the LGS-AO operations. Proceedings of SPIE, 2016, , .	0.8	2
70	Two-dimensional high-resolution spectroscopy of quiet regions on the sun. Astrophysics and Space Science, 1990, 170, 117-119.	1.4	1
71	Modeling observed errors in adaptive optics systems. , 1998, 3353, 1049.		1
72	Curvature adaptive optics at ESO. , 1998, 3353, 553.		1

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73	<title>ESO photometric and astrometric analysis program for AO: a programmatic and numerical analysis</title>. , 2000, 4007, 866.		1
74	SINFONI - Galaxy Dynamics at $0^{primeprime}hspace{-0.2cm}.05$ Resolution with the VLT. , 0, , 107-110.		1
75	<title>Modular concept for ELT adaptive optics</title>. , 2002, 4494, 41.		1
76	Observations of faint galaxies with adaptive optics. , 2003, 4834, 302.		1
77	Operational Issues for PARSEC, the VLT Laser. , 2003, , .		1
78	Ultra-low loss hollow-core photonic crystal fibers at 589 nm for LGS-assisted AO. , 2006, 6272, 1384.		1
79	Toward an on-sky ELT-scale sodium LGS wavefront sensing experiment. , 2012, , .		1
80	Assembly and test results of the AOF laser guide star units at ESO. , 2014, , .		1
81	Polarization-driven spin precession of mesospheric sodium atoms: publisherâ€™s note. Optics Letters, 2019, 44, 138.	3.3	1
82	<title>Adaptive optics with liquid crystal phase screens</title>. , 1994, 2201, 1155.		0
83	<title>Hypervelocity jets and homuncular motion in eta Carinae: an application of Fabry-Perot, ADONIS, and AO sofware</title>. , 2000, , .		0
84	Photometry and astrometry with anisoplanatic AO images. , 2004, , .		0
85	The Rayleigh technical demonstrator: a novel concepts platform. , 2006, 6272, 1356.		0
86	AO with LGS and mesospheric layer sensing. Proceedings of SPIE, 2008, , .	0.8	0
87	More than 15 W CW, 10 MHz linewidth laser at 589 nm using Raman fiber amplifier. , 2009, , .		0
88	Proposal for a field experiment of elongated Na LGS wave-front sensing in the perspective of the E-ELT. , 2014, , .		0
89	Getting ready for the first on sky experiment using an ELT-scaled elongated sodium laser guide star. Proceedings of SPIE, 2016, , .	0.8	0
90	The bistatic geometry for Na profiling with LGS at Teide Observatory. , 2016, , .		0

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91	A method to analyze adaptive optics images of binary stars. Astronomy and Astrophysics, 1999, 135, 187-195.	2.1	0
92	Simulations of continuous-wave sodium laser guide stars with polarization modulation at Larmor frequency. , 2018, , .		0
93	Closed loop operation with extremely elongated LGS spots in CANARY Phase D. , 2018, , .		0
94	Line of sight mesospheric sodium profiles obtained from the LGS signal for optimal ELT LGS-AO. , 2018, , .		0
95	Error breakdown of ELT-elongated LGS wavefront-sensing using CANARY on-sky measurements. , 2018, , .		0
96	SPADA: An Array of SPAD Detectors for Astrophysical Applications. , 2006, , 455-460.		0