

Mario Zannoni

List of Publications by Year in descending order

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135
papers

2,525
citations

236925

25
h-index

214800

47
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136
all docs

136
docs citations

136
times ranked

1639
citing authors

#	ARTICLE	IF	CITATIONS
1	The LSPE-Strip feed horn array. <i>Journal of Instrumentation</i> , 2022, 17, P01029.	1.2	2
2	In-flight polarization angle calibration for LiteBIRD: blind challenge and cosmological implications. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 039.	5.4	9
3	QUBIC V: Cryogenic system design and performance. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 038.	5.4	8
4	QUBIC VII: The feedhorn-switch system of the technological demonstrator. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 040.	5.4	6
5	QUBIC VIII: Optical design and performance. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 041.	5.4	9
6	QUBIC VI: Cryogenic half wave plate rotator, design and performance. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 039.	5.4	8
7	QUBIC IV: Performance of TES bolometers and readout electronics. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 037.	5.4	10
8	QUBIC I: Overview and science program. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 034.	5.4	20
9	QUBIC II: Spectral polarimetry with bolometric interferometry. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 035.	5.4	9
10	Properties of Daily Helium Fluxes. <i>Physical Review Letters</i> , 2022, 128, .	7.8	15
11	Total power horn-coupled 150 GHz LEKID array for space applications. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 009.	5.4	2
12	The Alpha Magnetic Spectrometer (AMS) on the international space station: Part II "Results from the first seven years. <i>Physics Reports</i> , 2021, 894, 1-116.	25.6	160
13	Properties of Iron Primary Cosmic Rays: Results from the Alpha Magnetic Spectrometer. <i>Physical Review Letters</i> , 2021, 126, 041104.	7.8	46
14	A chemically etched corrugated feedhorn array for D-band CMB observations. <i>Experimental Astronomy</i> , 2021, 51, 249-272.	3.7	5
15	Properties of Heavy Secondary Fluorine Cosmic Rays: Results from the Alpha Magnetic Spectrometer. <i>Physical Review Letters</i> , 2021, 126, 081102.	7.8	19
16	Properties of a New Group of Cosmic Nuclei: Results from the Alpha Magnetic Spectrometer on Sodium, Aluminum, and Nitrogen. <i>Physical Review Letters</i> , 2021, 127, 021101.	7.8	18
17	The large scale polarization explorer (LSPE) for CMB measurements: performance forecast. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 008.	5.4	27
18	The Simons Observatory Large Aperture Telescope Receiver. <i>Astrophysical Journal, Supplement Series</i> , 2021, 256, 23.	7.7	11

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19	Thermal Vacuum Cold Target for the Metop SG MicroWave Imager. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 10348-10356.	4.9	5
20	The Simons Observatory: metamaterial microwave absorber and its cryogenic applications. Applied Optics, 2021, 60, 864.	1.8	13
21	Periodicities in the Daily Proton Fluxes from 2011 to 2019 Measured by the Alpha Magnetic Spectrometer on the International Space Station from 1 to 100ÅGV. Physical Review Letters, 2021, 127, 271102.	7.8	27
22	The long duration cryogenic system of the OLIMPO balloonborne experiment: Design and in-flight performance. Cryogenics, 2020, 110, 103129.	1.7	4
23	Small Aperture Telescopes for the Simons Observatory. Journal of Low Temperature Physics, 2020, 200, 461-471.	1.4	21
24	Design and Verification of a Q-Band Test Source for UAV-Based Radiation Pattern Measurements. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 9366-9370.	4.7	3
25	Properties of Neon, Magnesium, and Silicon Primary Cosmic Rays Results from the Alpha Magnetic Spectrometer. Physical Review Letters, 2020, 124, 211102.	7.8	58
26	Updated Design of the CMB Polarization Experiment Satellite LiteBIRD. Journal of Low Temperature Physics, 2020, 199, 1107-1117.	1.4	64
27	Permittivity and permeability of epoxy magnetite powder composites at microwave frequencies. Journal of Applied Physics, 2020, 127, 045102.	2.5	4
28	QUBIC: The Q & U Bolometric Interferometer for Cosmology. Journal of Low Temperature Physics, 2020, 199, 482-490.	1.4	8
29	TES Bolometer Arrays for the QUBIC B-Mode CMB Experiment. Journal of Low Temperature Physics, 2020, 199, 955-961.	1.4	6
30	QUBIC: Using NbSi TESs with a Bolometric Interferometer to Characterize the Polarization of the CMB. Journal of Low Temperature Physics, 2020, 200, 363-373.	1.4	4
31	Progress Report on the Large-Scale Polarization Explorer. Journal of Low Temperature Physics, 2020, 200, 374-383.	1.4	16
32	Properties of Cosmic Helium Isotopes Measured by the Alpha Magnetic Spectrometer. Physical Review Letters, 2019, 123, 181102.	7.8	40
33	Towards Understanding the Origin of Cosmic-Ray Positrons. Physical Review Letters, 2019, 122, 041102.	7.8	174
34	Towards Understanding the Origin of Cosmic-Ray Electrons. Physical Review Letters, 2019, 122, 101101.	7.8	109
35	QUBIC: Exploring the Primordial Universe with the Q&U Bolometric Interferometer. Universe, 2019, 5, 42.	2.5	15
36	Exploring cosmic origins with CORE: Survey requirements and mission design. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 014-014.	5.4	98

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37	Exploring cosmic origins with CORE: The instrument. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 015-015.	5.4	25
38	Exploring cosmic origins with CORE: Inflation. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 016-016.	5.4	75
39	Exploring cosmic origins with CORE: Cosmological parameters. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 017-017.	5.4	73
40	Exploring cosmic origins with CORE: Gravitational lensing of the CMB. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 018-018.	5.4	29
41	Exploring cosmic origins with CORE: Cluster science. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 019-019.	5.4	17
42	Exploring cosmic origins with CORE: Extragalactic sources in cosmic microwave background maps. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 020-020.	5.4	20
43	Exploring cosmic origins with CORE: Effects of observer peculiar motion. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 021-021.	5.4	18
44	Exploring cosmic origins with CORE: Mitigation of systematic effects. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 022-022.	5.4	14
45	Exploring cosmic origins with CORE: <i>B</i> -mode component separation. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 023-023.	5.4	44
46	Observation of New Properties of Secondary Cosmic Rays Lithium, Beryllium, and Boron by the Alpha Magnetic Spectrometer on the International Space Station. Physical Review Letters, 2018, 120, 021101.	7.8	172
47	Observation of Complex Time Structures in the Cosmic-Ray Electron and Positron Fluxes with the Alpha Magnetic Spectrometer on the International Space Station. Physical Review Letters, 2018, 121, 051102.	7.8	62
48	Observation of Fine Time Structures in the Cosmic Proton and Helium Fluxes with the Alpha Magnetic Spectrometer on the International Space Station. Physical Review Letters, 2018, 121, 051101.	7.8	98
49	Precision Measurement of Cosmic-Ray Nitrogen and its Primary and Secondary Components with the Alpha Magnetic Spectrometer on the International Space Station. Physical Review Letters, 2018, 121, 051103.	7.8	68
50	Performance of NbSi transition-edge sensors readout with a 128 MUX factor for the QUBIC experiment. , 2018, , .		4
51	Thermal architecture for the QUBIC cryogenic receiver. , 2018, , .		5
52	QUBIC: the Q and U bolometric interferometer for cosmology. , 2018, , .		6
53	Concept design of the LiteBIRD satellite for CMB B-mode polarization. , 2018, , .		19
54	The STRIP instrument of the Large Scale Polarization Explorer: microwave eyes to map the Galactic polarized foregrounds. , 2018, , .		7

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55	Optical modelling and analysis of the Q and U bolometric interferometer for cosmology. , 2018, , .		0
56	Simulations and performance of the QUBIC optical beam combiner. , 2018, , .		3
57	A CMOS application-specified-integrated-circuit for 40 GHz high-electron-mobility-transistors automatic biasing. Review of Scientific Instruments, 2017, 88, 024702.	1.3	0
58	Observation of the Identical Rigidity Dependence of He, C, and O Cosmic Rays at High Rigidities by the Alpha Magnetic Spectrometer on the International Space Station. Physical Review Letters, 2017, 119, 251101.	7.8	204
59	On the forwardâ€backwardâ€™inâ€™time approach for Monte Carlo solution of Parker's transport equation: Oneâ€™dimensional case. Journal of Geophysical Research: Space Physics, 2016, 121, 3920-3930.	2.4	31
60	Optical design and modelling of the QUBIC instrument, a next-generation quasi-optical bolometric interferometer for cosmology. Proceedings of SPIE, 2016, , .	0.8	0
61	QUBIC: A Fizeau Interferometer Targeting Primordial B-Modes. Journal of Low Temperature Physics, 2016, 184, 739-745.	1.4	9
62	Millimetric LNAs for astronomy: characterization at cryogenic temperature. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2015, 28, 745-754.	1.9	2
63	Q-band antenna-feed system for the Large Scale Polarization Explorer balloon experiment. , 2015, , .		2
64	Efficient differential Fourier-transform spectrometer for precision Sunyaev-Zelâ€™dovich effect measurements. Astronomy and Astrophysics, 2014, 565, A125.	5.1	17
65	New RF data on ECCOSORB CR/MF absorber. Proceedings of SPIE, 2014, , .	0.8	1
66	Comparison of cryogenic W band low noise amplifier based on different III-V HEMT foundry process and technologies. Proceedings of SPIE, 2014, , .	0.8	1
67	Superconducting NbN Coplanar Switch Driven by DC Current for CMB Instruments. Journal of Low Temperature Physics, 2014, 176, 663-669.	1.4	2
68	Latest Progress on the QUBIC Instrument. Journal of Low Temperature Physics, 2013, 176, 698.	1.4	2
69	A cryogenic set-up for accurate characterization of microwave components for astrophysics. , 2013, , .		2
70	A monolithic CMOS automatic biasing system for 40GHz multistage HEMT. , 2013, , .		0
71	The optical design of the QUBIC beam combiner. Proceedings of SPIE, 2012, , .	0.8	0
72	From an MMIC chip to a working cryogenic low-noise amplifier: a detailed study on packaging. Proceedings of SPIE, 2012, , .	0.8	0

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73	A coherent polarimeter array for the Large Scale Polarization Explorer (LSPE) balloon experiment. Proceedings of SPIE, 2012, , .	0.8	13
74	A cryogenic set-up for accurate measurements of S-parameters. , 2012, , .		1
75	The Large-Scale Polarization Explorer (LSPE). Proceedings of SPIE, 2012, , .	0.8	38
76	W-Band Superconducting Planar Orthogonal Mode Transducer Characterisation. Journal of Low Temperature Physics, 2012, 167, 491-496.	1.4	2
77	QUBIC: the Q&U Bolometric Interferometer for Cosmology. Journal of Low Temperature Physics, 2012, 167, 872-878.	1.4	15
78	Intensity and polarization of the atmospheric emission at millimetric wavelengths at Dome Concordia. Monthly Notices of the Royal Astronomical Society, 2012, 423, 1293-1299.	4.4	12
79	W-band prototype of platelet feed-horn array for CMB polarisation measurements. Journal of Instrumentation, 2011, 6, P06009-P06009.	1.2	16
80	A template of atmospheric O ₂ circularly polarized emission for cosmic microwave background experiments. Monthly Notices of the Royal Astronomical Society, 2011, 414, 3272-3280.	4.4	10
81	QUBIC: The QU bolometric interferometer for cosmology. Astroparticle Physics, 2011, 34, 705-716.	4.3	47
82	On the detectability of cosmic ray electron spectral features in the microwave/mm-wave range. , 2011, , .		0
83	Mechanical design considerations for a 3m class fast pointing telescope. , 2010, , .		2
84	Path to the stars: the evolution of the species in the hunting to the GRBs. , 2010, , .		2
85	A Path to the Stars: The Evolution of the Species. Advances in Astronomy, 2010, 2010, 1-14.	1.1	1
86	Estimators for the performances of the optical combiner of an adding interferometer. , 2010, , .		0
87	Measurement accuracy of S-parameters in W band at cryogenic temperature. , 2010, , .		2
88	Experimental Study of an Adding Interferometer at Millimeter Waves. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 31, 88.	2.2	0
89	Superconducting Planar Devices for Cosmology. , 2009, , .		3
90	Spectroscopic Active Galaxies and Clusters Explorer. , 2009, , .		0

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91	TRIS. I. Absolute Measurements of the Sky Brightness Temperature at 0.6, 0.82, and 2.5 GHz. <i>Astrophysical Journal</i> , 2008, 688, 12-23.	4.5	39
92	The Contribution of the Unresolved Extragalactic Radio Sources to the Brightness Temperature of the Sky. <i>Astrophysical Journal</i> , 2008, 682, 223-230.	4.5	64
93	TRIS. II. Search for CMB Spectral Distortions at 0.60, 0.82, and 2.5 GHz. <i>Astrophysical Journal</i> , 2008, 688, 24-31.	4.5	33
94	TRIS. III. The Diffuse Galactic Radio Emission at $\hat{\tau} = +42^\circ$. <i>Astrophysical Journal</i> , 2008, 688, 32-42.	4.5	21
95	THE BRAIN EXPERIMENT. , 2008, , .		0
96	Systematic effects induced by flat slabs of isotropic dielectrics: From microwave to millimeter wavelengths. <i>New Astronomy Reviews</i> , 2007, 51, 266-274.	12.8	0
97	The BRAIN CMB polarization experiment. <i>New Astronomy Reviews</i> , 2007, 51, 256-259.	12.8	20
98	The CMB spectrum: Perspective of observing spectral distortions. <i>New Astronomy Reviews</i> , 2007, 51, 406-410.	12.8	1
99	Radiometers based on SIS mixers to measure SZ effect from galaxy clusters. <i>New Astronomy Reviews</i> , 2007, 51, 363-367.	12.8	0
100	Systematic effects induced by a flat isotropic dielectric slab. <i>Applied Optics</i> , 2006, 45, 5168.	2.1	1
101	BaR-SPOrt: the instrument to be accommodated at Dome C. <i>EAS Publications Series</i> , 2005, 14, 257-262.	0.3	0
102	MASTER: a radiometer for mm and sub-mm observations from the Antarctic Plateau. <i>EAS Publications Series</i> , 2005, 14, 239-244.	0.3	0
103	CMB Polarimetry from the Antarctic Plateau. <i>EAS Publications Series</i> , 2005, 14, 263-268.	0.3	0
104	Precision CMB Polarization from Dome-C: the BRAIN experiment. <i>EAS Publications Series</i> , 2005, 14, 87-92.	0.3	6
105	The Spectral Index of the Galactic Foreground Affecting CMB Measurements. <i>Symposium - International Astronomical Union</i> , 2005, 201, 538-539.	0.1	0
106	The BaR-SPOrt experiment: measuring the CMBP E-mode power spectrum from Dome C. <i>EAS Publications Series</i> , 2005, 14, 81-86.	0.3	1
107	The Sky Polarization Observatory. <i>New Astronomy</i> , 2004, 9, 297-327.	1.8	28
108	High stability and sensitivity correlation polarimeters for CMB polarization measurements. , 2004, , .		3

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109	Thermal design and performance evaluation of the BaR-SPOrt cryostat. , 2004, 5498, 735.		1
110	Optical properties of dielectrics in the mm range: the case of spurious polarization induced by a vacuum window. , 2004, , .		0
111	Effects of thermal fluctuations in the SPOrt experiment. Astronomy and Astrophysics, 2004, 428, 781-791.	5.1	1
112	The BaR-SPOrt experiment. , 2003, , .		1
113	SPOrt: an experiment aimed at measuring the large-scale cosmic microwave background polarization. , 2003, 4843, 305.		3
114	Dual output polarimeter devoted to the study of the Cosmic Microwave Background. , 2003, 4843, 336.		4
115	An iterative destriping technique for diffuse background polarization data. Astronomy and Astrophysics, 2003, 401, 1215-1222.	5.1	17
116	MASTER: A Triple Heterodyne Receiver for Astronomy in the Millimetre and Submillimetre Domain. Publications of the Astronomical Society of Australia, 2002, 19, 323-327.	3.4	1
117	Polarimetry of the Cosmic Microwave Background from the Antarctic Plateau. Publications of the Astronomical Society of Australia, 2002, 19, 313-317.	3.4	1
118	MASTER: Millimetre and sub-millimetre triple hEterodyne receiver. AIP Conference Proceedings, 2002, , .	0.4	0
119	The BaR-SPOrt experiment: The Science. AIP Conference Proceedings, 2002, , .	0.4	1
120	BaR-SPOrt: A technical overview. AIP Conference Proceedings, 2002, , .	0.4	1
121	The Milano polarization experiment devoted to the study of the cosmic microwave background. AIP Conference Proceedings, 2002, , .	0.4	2
122	The SPOrt experiment. AIP Conference Proceedings, 2002, , .	0.4	5
123	The Milano polarimeter: An instrument to search for large scale polarization of the cosmic microwave background. AIP Conference Proceedings, 2002, , .	0.4	0
124	Thermal design and preliminary performance evaluation of the cooling system for BaR-SPOrt. AIP Conference Proceedings, 2002, , .	0.4	1
125	A destriping technique for SPOrt polarization data. AIP Conference Proceedings, 2002, , .	0.4	1
126	The BaR-SPOrt experiment. AIP Conference Proceedings, 2002, , .	0.4	5

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127	Calibration techniques and devices for correlation radiometers used in polarization measurements. AIP Conference Proceedings, 2002, , .	0.4	1
128	CMB observations: improvements of the performance of correlation radiometers by signal modulation and synchronous detection. New Astronomy, 2002, 7, 125-134.	1.8	7
129	SPOrt: A project for radio polarimetry from the International Space Station. AIP Conference Proceedings, 2000, , .	0.4	4
130	<title>Ultraviolet Italian Sky Surveyor (UVISS) on the International Space Station (ISS): study report</title>., 2000, 4139, 199.		0
131	TRIS EXPERIMENT: a search for spectral distortions in the CMB spectrum close to 1 GHz. , 1999, , .		2
132	Search for Cosmic Microwave Background polarization. , 1999, , .		0
133	The long wavelength spectrum of the Cosmic Microwave Background. , 1999, , .		0
134	BaR-SPOrt: Balloon-Borne Radiometers for Sky Polarization Observations. Globular Clusters - Guides To Galaxies, 0, , 481-482.	0.1	0
135	The Sky Polarization Observatory (SPOrt) Programme. , 0, , 425-426.		0