

Fiodor Sorrentino

List of Publications by Year in descending order

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Version: 2024-02-01

134
papers

39,292
citations

29994

54
h-index

17055

122
g-index

138
all docs

138
docs citations

138
times ranked

17571
citing authors

#	ARTICLE	IF	CITATIONS
1	Can electrons neutralize the electrostatic charge on test mass mirrors in gravitational wave detectors?. <i>Physical Review D</i> , 2022, 105, .	1.6	0
2	Thermally controlled optical resonator for vacuum squeezed states separation. <i>Applied Optics</i> , 2022, 61, 5226.	0.9	0
3	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , 2021, 909, 218.	1.6	144
4	Automated source of squeezed vacuum states driven by finite state machine based software. <i>Review of Scientific Instruments</i> , 2021, 92, 054504.	0.6	3
5	Exploring the foundations of the physical universe with space tests of the equivalence principle. <i>Experimental Astronomy</i> , 2021, 51, 1695-1736.	1.6	20
6	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2020, 23, 3.	8.2	447
7	Precision gravity tests and the Einstein Equivalence Principle. <i>Progress in Particle and Nuclear Physics</i> , 2020, 112, 103772.	5.6	56
8	Gravity and antimatter: the AEGIS experiment at CERN. <i>Journal of Physics: Conference Series</i> , 2020, 1342, 012016.	0.3	4
9	Advanced Virgo Status. <i>Journal of Physics: Conference Series</i> , 2020, 1342, 012010.	0.3	9
10	ELGARÊ”a European Laboratory for Gravitation and Atom-interferometric Research. <i>Classical and Quantum Gravity</i> , 2020, 37, 225017.	1.5	63
11	AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space. <i>EPJ Quantum Technology</i> , 2020, 7, .	2.9	190
12	Shallow bore-hole three-axial fiber Bragg grating strain sensor for Etna volcano monitoring. <i>Review of Scientific Instruments</i> , 2019, 90, 094501.	0.6	4
13	MOCASS: A Satellite Mission Concept Using Cold Atom Interferometry for Measuring the Earth Gravity Field. <i>Surveys in Geophysics</i> , 2019, 40, 1029-1053.	2.1	23
14	Monte-Carlo simulation of positronium laser excitation and anti-hydrogen formation via charge exchange. <i>Hyperfine Interactions</i> , 2019, 240, 1.	0.2	1
15	Velocity-selected production of S_2 metastable positronium. <i>Physical Review A</i> , 2019, 99, .	1.0	17
16	Imaging a positronium cloud in a 1 Tesla. <i>EPJ Web of Conferences</i> , 2019, 198, 00004.	0.1	4
17	Positronium Rydberg excitation diagnostic in a 1T cryogenic environment. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	5
18	Production of long-lived positronium states via laser excitation to 33P level. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0

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19	The AEGIS experiment: towards antimatter gravity measurements. Journal of Physics: Conference Series, 2019, 1390, 012104.	0.3	1
20	SAGE: A proposal for a space atomic gravity explorer. European Physical Journal D, 2019, 73, 1.	0.6	75
21	AEGIS at ELENA: outlook for physics with a pulsed cold antihydrogen beam. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170274.	1.6	8
22	Compression of a mixed antiproton and electron non-neutral plasma to high densities. European Physical Journal D, 2018, 72, 1.	0.6	17
23	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	8.2	808
24	Antiproton tagging and vertex fitting in a Timepix3 detector. Journal of Instrumentation, 2018, 13, P06004-P06004.	0.5	0
25	AEGIS latest results. EPJ Web of Conferences, 2018, 181, 01037.	0.1	1
26	Calibration of advanced Virgo and reconstruction of the gravitational wave signal $h(t)$ (t) T_j $ETQq000$ $rgBT/Overlock$ $10Tf$	1.5	41
27	Towards the first measurement of matter-antimatter gravitational interaction. EPJ Web of Conferences, 2018, 182, 02040.	0.1	3
28	Status of Advanced Virgo. EPJ Web of Conferences, 2018, 182, 02003.	0.1	9
29	Producing long-lived Ps $\text{width}="0.16\text{em}"/></mml:mrow><mml:mn>3</mml:mn></mml:msup><mml:mi>S</mml:mi></mml:mrow></mml:math>$ positronium via Ps	1.0	21
30	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
31	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. Physical Review D, 2017, 95, .	1.6	69
32	Effects of waveform model systematics on the interpretation of GW150914. Classical and Quantum Gravity, 2017, 34, 104002.	1.5	98
33	Classification of wrought aluminum alloys by Artificial Neural Networks evaluation of Laser Induced Breakdown Spectroscopy spectra from aluminum scrap samples. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 134, 52-57.	1.5	58
34	Quantum test of the equivalence principle for atoms in coherent superposition of internal energy states. Nature Communications, 2017, 8, 15529.	5.8	149
35	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run. Physical Review Letters, 2017, 118, 121101.	2.9	194
36	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. Physical Review Letters, 2017, 118, 121102.	2.9	84

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37	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , 2017, 839, 12.	1.6	131
38	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , 2017, 529, 1600209.	0.9	69
39	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2017, 119, 141101.	2.9	1,600
40	Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. <i>Astrophysical Journal</i> , 2017, 847, 47.	1.6	46
41	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88.	13.7	674
42	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , 2017, 119, 161101.	2.9	6,413
43	Multi-messenger Observations of a Binary Neutron Star Merger [*] . <i>Astrophysical Journal Letters</i> , 2017, 848, L12.	3.0	2,805
44	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , 2017, 848, L13.	3.0	2,314
45	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. <i>Physical Review D</i> , 2017, 96, .	1.6	73
46	All-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2017, 96, .	1.6	64
47	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. <i>Astrophysical Journal</i> , 2017, 841, 89.	1.6	52
48	Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. <i>Physical Review D</i> , 2017, 96, .	1.6	40
49	Potentiometric sensor for non invasive lactate determination in human sweat. <i>Analytica Chimica Acta</i> , 2017, 989, 80-87.	2.6	52
50	Characterization of a transmission positron/positronium converter for antihydrogen production. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017, 407, 55-66.	0.6	7
51	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , 2017, 118, 221101.	2.9	1,987
52	Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544. <i>Physical Review D</i> , 2017, 95, .	1.6	19
53	Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. <i>Physical Review D</i> , 2017, 95, .	1.6	59
54	Status of the Advanced Virgo gravitational wave detector. <i>International Journal of Modern Physics A</i> , 2017, 32, 1744003.	0.5	6

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55	Measurement of antiproton annihilation on Cu, Ag and Au with emulsion films. Journal of Instrumentation, 2017, 12, P04021-P04021.	0.5	4
56	The AEGIS experiment at CERN: measuring antihydrogen free-fall in earth's gravitational field to test WEP with antimatter. Journal of Physics: Conference Series, 2017, 791, 012014.	0.3	7
57	Advances in Ps Manipulations and Laser Studies in the AEGIS Experiment. Acta Physica Polonica B, 2017, 48, 1583.	0.3	3
58	Positronium for Antihydrogen Production in the AEGIS Experiment. Acta Physica Polonica A, 2017, 132, 1443-1449.	0.2	0
59	Probing antimatter gravity – The AEGIS experiment at CERN. EPJ Web of Conferences, 2016, 126, 02016.	0.1	2
60	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
61	SUPPLEMENT: “THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914” (2016, ApJL, 833, L1). Astrophysical Journal, Supplement Series, 2016, 227, 14.	3.0	63
62	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	8.2	427
63	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. Physical Review X, 2016, 6, .	2.8	106
64	Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project. Physical Review D, 2016, 94, .	1.6	31
65	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. Astrophysical Journal Letters, 2016, 833, L1.	3.0	230
66	The Advanced Virgo interferometer. , 2016, , .		0
67	LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914. Astrophysical Journal Letters, 2016, 826, L13.	3.0	210
68	Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data. Physical Review D, 2016, 94, .	1.6	35
69	First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors. Physical Review D, 2016, 94, .	1.6	60
70	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STAR “BLACK HOLE MERGERS FROM ADVANCED LIGO’S FIRST OBSERVING RUN. Astrophysical Journal Letters, 2016, 832, L21.	3.0	146
71	Directly comparing GW150914 with numerical solutions of Einstein’s equations for binary black hole coalescence. Physical Review D, 2016, 94, .	1.6	102
72	Bragg interferometer for gravity gradient measurements. Physical Review A, 2016, 93, .	1.0	26

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73	All-sky search for long-duration gravitational wave transients with initial LIGO. Physical Review D, 2016, 93, .	1.6	29
74	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. Physical Review D, 2016, 93, .	1.6	315
75	Search for transient gravitational waves in coincidence with short-duration radio transients during 2007–2013. Physical Review D, 2016, 93, .	1.6	14
76	High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube. Physical Review D, 2016, 93, .	1.6	92
77	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	2.9	269
78	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters, 2016, 116, 131103.	2.9	466
79	SUPPLEMENT: LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914 (2016, ApJL, 826, L13). Astrophysical Journal, Supplement Series, 2016, 225, 8.	3.0	44
80	Observing gravitational-wave transient GW150914 with minimal assumptions. Physical Review D, 2016, 93, .	1.6	119
81	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	2.9	1,224
82	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	2.9	673
83	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	2.9	2,701
84	Laser excitation of the $n=2$ states of positronium for antihydrogen production. Physical Review A, 2016, 94, .	1.0	3
85	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. Physical Review X, 2016, 6, .	2.8	898
86	Precision Measurement of the Newtonian Gravitational Constant by Atom Interferometry. , 2016, , .		1
87	Direct detection of antiprotons with the Timepix3 in a new electrostatic selection beamline. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 12-17.	0.7	6
88	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	3.0	633
89	Tuning of a high magnification compact parabolic telescope for centimeter-scale laser beams. Applied Optics, 2016, 55, 1275.	2.1	5
90	Observation of Gravitational Waves from a Binary Black Hole Merger. Physical Review Letters, 2016, 116, 061102.	2.9	8,753

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91	Testing the Weak Equivalence Principle with an antimatter beam at CERN. Journal of Physics: Conference Series, 2015, 631, 012047.	0.3	7
92	Positron bunching and electrostatic transport system for the production and emission of dense positronium clouds into vacuum. Nuclear Instruments & Methods in Physics Research B, 2015, 362, 86-92.	0.6	34
93	Measurement of the Gravity-Field Curvature by Atom Interferometry. Physical Review Letters, 2015, 114, 013001.	2.9	102
94	Design of a dual species atom interferometer for space. Experimental Astronomy, 2015, 39, 167-206.	1.6	48
95	Quantum tests of the Einstein Equivalence Principle with the STE-QUEST space mission. Advances in Space Research, 2015, 55, 501-524.	1.2	151
96	Measuring the Newtonian constant of gravitation G with an atomic interferometer. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140030.	1.6	35
97	Sensitivity limits of a Raman atom interferometer as a gravity gradiometer. Physical Review A, 2014, 89, .	1.0	165
98	STE-QUEST- test of the universality of free fall using cold atom interferometry. Classical and Quantum Gravity, 2014, 31, 115010.	1.5	159
99	Precision measurement of the Newtonian gravitational constant using cold atoms. Nature, 2014, 510, 518-521.	13.7	499
100	Precision Gravity Tests with Atom Interferometry in Space. Nuclear Physics, Section B, Proceedings Supplements, 2013, 243-244, 203-217.	0.5	68
101	Frequency noise performances of a Ti:sapphire optical frequency comb stabilized to an optical reference. Optics Communications, 2013, 291, 291-298.	1.0	7
102	Precision measurement of the gravitational constant with atom interferometry. , 2013, , .		0
103	PRINCIPLES OF GRAVITATIONAL WAVES DETECTION THROUGH ATOM INTERFEROMETRY. International Journal of Modern Physics Conference Series, 2013, 23, 135-143.	0.7	1
104	Laser-induced breakdown spectroscopy application to control of the process of precious metal recovery and recycling. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 71-72, 123-126.	1.5	14
105	Simultaneous measurement of gravity acceleration and gravity gradient with an atom interferometer. Applied Physics Letters, 2012, 101, .	1.5	51
106	Absolute gravity acceleration measurement in atomic sensor laboratories. European Physical Journal Plus, 2012, 127, 1.	1.2	2
107	iSense: A Portable Ultracold-Atom-Based Gravimeter. Procedia Computer Science, 2011, 7, 334-336.	1.2	11
108	The Space Atom Interferometer project: status and prospects. Journal of Physics: Conference Series, 2011, 327, 012050.	0.3	20

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109	Progress towards an unassisted element identification from Laser Induced Breakdown Spectra with automatic ranking techniques inspired by text retrieval. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 664-670.	1.5	29
110	A Compact Atom Interferometer for Future Space Missions. Microgravity Science and Technology, 2010, 22, 551-561.	0.7	48
111	Performances of \hat{G} -Pisa \hat{G} ™: a middle size gyrolaser. Classical and Quantum Gravity, 2010, 27, 084033.	1.5	16
112	Sensitive gravity-gradiometry with atom interferometry: progress towards an improved determination of the gravitational constant. New Journal of Physics, 2010, 12, 095009.	1.2	39
113	G-Pisa gyrolaser. , 2009, , .		0
114	Fast analysis of complex metallic alloys by double-pulse time-integrated Laser-Induced Breakdown Spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1068-1072.	1.5	28
115	Matter wave explorer of gravity (MWXG). Experimental Astronomy, 2009, 23, 611-649.	1.6	30
116	Quantum sensor for atom-surface interactions below 10^{-10} m. Physical Review A, 2009, 79, .	1.0	48
117	Precision gravimetry with atomic sensors. Measurement Science and Technology, 2009, 20, 022001.	1.4	87
118	Prospect for a compact strontium optical lattice clock. , 2007, , .		7
119	Development of an erbium-doped fibre laser as a deep-sea hydrophone. Journal of Optics, 2006, 8, S535-S539.	1.5	26
120	Long-Lived Bloch Oscillations with Bosonic Sr Atoms and Application to Gravity Measurement at the Micrometer Scale. Physical Review Letters, 2006, 97, 060402.	2.9	214
121	Erbium-doped fiber lasers as deep-sea hydrophones. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 567, 515-517.	0.7	9
122	Laser sources for precision spectroscopy on atomic strontium. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2006, 63, 981-986.	2.0	21
123	Mod \hat{A} -: a new mobile instrument for in situ double-pulse LIBS analysis. Analytical and Bioanalytical Chemistry, 2006, 385, 240-247.	1.9	105
124	Cooling of Sr to high phase-space density by laser and sympathetic cooling in isotopic mixtures. Physical Review A, 2006, 73, .	1.0	30
125	FIBER LASER HYDROPHONES AS PRESSURE SENSORS. International Journal of Modern Physics A, 2006, 21, 102-106.	0.5	2
126	LASER COOLING AND TRAPPING OF ATOMIC STRONTIUM FOR ULTRACOLD ATOMS PHYSICS, HIGH-PRECISION SPECTROSCOPY AND QUANTUM SENSORS. Modern Physics Letters B, 2006, 20, 1287-1320.	1.0	28

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127	Measurements of Near-Infrared Frequency Mixing by Metal-Semiconductor Point-Contact Diodes. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 1407-1411.	2.4	5
128	Cooling and trapping of ultracold strontium isotopic mixtures. Physical Review A, 2005, 71, .	1.0	44
129	Coherent multiwave heterodyne frequency measurement of a far-infrared laser by means of a femtosecond laser comb. Optics Letters, 2005, 30, 32.	1.7	16
130	An analog+digital phase-frequency detector for phase locking of a diode laser to an optical frequency comb. Quantum Electronics, 2004, 34, 559-564.	0.3	19
131	Measurement of the $4s^2 \ ^1S_0 \rightarrow 4s3d \ ^1D_2$ transition probability in calcium. European Physical Journal D, 2003, 23, 223-228.	0.6	6
132	Frequency stabilization of a diode laser on the Cs D2 resonance line by the Zeeman effect in a vapor cell. Applied Physics B: Lasers and Optics, 2001, 73, 133-138.	1.1	23
133	Precision measurements of gravity using cold atom sensors. Journal of the European Optical Society-Rapid Publications, 0, 4, .	0.9	1
134	AEDGE: Atomic experiment for dark matter and gravity exploration in space. Experimental Astronomy, 0, , 1.	1.6	9