

Yannis K Semertzidis

List of Publications by Year in descending order

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113
papers

7,752
citations

136950

32
h-index

49909

87
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117
all docs

117
docs citations

117
times ranked

6316
citing authors

#	ARTICLE	IF	CITATIONS
1	A method for controlling the magnetic field near a superconducting boundary in the ARIADNE axion experiment. Quantum Science and Technology, 2022, 7, 014002.	5.8	4
2	Development of Quantum Limited Superconducting Amplifiers for Advanced Detection. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	7
3	Bimodal Approach for Noise Figures of Merit Evaluation in Quantum-Limited Josephson Traveling Wave Parametric Amplifiers. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-6.	1.7	8
4	Comprehensive symmetric-hybrid ring design for a proton EDM experiment at below $10 \text{ e}\text{\AA}$ cm. Physical Review D, 2022, 105, .	1.7	1
5	Axion dark matter: How to see it?. Science Advances, 2022, 8, eabm9928.	10.3	27
6	Analytical estimations of the chromaticity and corrections to the spin precession frequency in weak focusing magnetic storage rings. Physical Review Accelerators and Beams, 2022, 25, .	1.6	1
7	An implementation of spin-dependent hadron elastic scattering in GEANT4. Journal of the Korean Physical Society, 2022, 80, 437-446.	0.7	0
8	Analytical considerations for optimal axion haloscope design. Journal of Physics G: Nuclear and Particle Physics, 2022, 49, 055201.	3.6	1
9	Biaxially Textured $\text{YBa}_2\text{Cu}_3\text{O}_7$ Microwave Cavity in a High Magnetic Field for a Dark-Matter Axion Search. Physical Review Applied, 2022, 17, .	3.1	1
10	The Dark Universe Is Not Invisible. Physical Sciences Forum, 2021, 2, 10.	0.3	2
11	Sensitivity improvement in hidden photon detection using resonant cavities. Physical Review D, 2021, 103, .	4.7	4
12	Storage ring probes of dark matter and dark energy. Physical Review D, 2021, 103, .	4.7	29
13	Beam dynamics corrections to the Run-1 measurement of the muon anomalous magnetic moment at Fermilab. Physical Review Accelerators and Beams, 2021, 24, .	1.6	32
14	Magnetic-field measurement and analysis for the Muon $g-2$ Experiment at Fermilab. Physical Review A, 2021, 103, .	5.1	52
15	Improved axion haloscope search analysis. Journal of High Energy Physics, 2021, 2021, 1.	4.7	7
16	Measurement of the Positive Muon Anomalous Magnetic Moment to 0.46 ppm . Physical Review Letters, 2021, 126, 141801.	7.8	991
17	Measurement of the anomalous precession frequency of the muon in the Fermilab Muon $g-2$ Experiment. Physical Review D, 2021, 103, .	4.7	105
18	First Results from an Axion Haloscope at CAPP around $10.7 \text{ e}\%$. Physical Review Letters, 2021, 126, 191802.	7.8	96

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19	Characterization of a flux-driven Josephson parametric amplifier with near quantum-limited added noise for axion search experiments. Superconductor Science and Technology, 2021, 34, 085013.	3.5	23
20	CAPP-8TB: Axion dark matter search experiment around $6.7 \mu\text{eV}$. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1013, 165667.	1.6	14
21	First results of the CAST-RADES haloscope search for axions at $34.67 \mu\text{eV}$. Journal of High Energy Physics, 2021, 2021, 1.	4.7	43
22	Cosmic axion force. Physical Review D, 2021, 104, .	4.7	12
23	New method of probing an oscillating EDM induced by axionlike dark matter using an rf Wien filter in storage rings. Physical Review D, 2021, 104, .	4.7	11
24	Search for topological defect dark matter with a global network of optical magnetometers. Nature Physics, 2021, 17, 1396-1401.	16.7	42
25	Revisiting the detection rate for axion haloscopes. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 066-066.	5.4	33
26	COMET Phase-I technical design report. Progress of Theoretical and Experimental Physics, 2020, 2020, .	6.6	66
27	Noise Temperature Measurements for Axion Haloscope Experiments at IBS/CAPP. Journal of Low Temperature Physics, 2020, 200, 472-478.	1.4	2
28	Search for Invisible Axion Dark Matter with a Multiple-Cell Haloscope. Physical Review Letters, 2020, 125, 221302.	7.8	83
29	Axion Dark Matter Search around $6.7 \mu\text{eV}$. Physical Review Letters, 2020, 124, 101802.	7.8	83
30	Exploiting higher-order resonant modes for axion haloscopes. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 035203.	3.6	16
31	Analysis method for detecting topological defect dark matter with a global magnetometer network. Physics of the Dark Universe, 2020, 28, 100494.	4.9	23
32	Reduction of coherent betatron oscillations in a muon $\hat{\nu}^2$ storage ring experiment using RF fields. New Journal of Physics, 2020, 22, 063002.	2.9	4
33	Multiple-Cell Cavity for High Mass Axion Dark Matter Search. Springer Proceedings in Physics, 2020, , 131-137.	0.2	0
34	CAPP-PACE Experiment with a Target Mass Range Around $10 \mu\text{eV}$. Springer Proceedings in Physics, 2020, , 83-87.	0.2	2
35	Effective approximation of electromagnetism for axion haloscope searches. Physics of the Dark Universe, 2019, 26, 100362.	4.9	18
36	Status of the 25 T, 100 mm Bore HTS Solenoid for an Axion Dark Matter Search Experiment. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	12

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37	A Design Study on a Multibillet HTS Induction Heater With REBCO Racetrack Coils. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	8
38	Magnetic field effects on the proton EDM in a continuous all-electric storage ring. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 927, 262-266.	1.6	3
39	A new approach for measuring the muon anomalous magnetic moment and electric dipole moment. Progress of Theoretical and Experimental Physics, 2019, 2019, .	6.6	112
40	Axionlike dark matter search using the storage ring EDM method. Physical Review D, 2019, 99, .	4.7	24
41	Development of SQUID Amplifiers for Axion Search Experiments. , 2019, , .		1
42	Hybrid ring design in the storage-ring proton electric dipole moment experiment. Physical Review Accelerators and Beams, 2019, 22, .	1.6	15
43	SQUID-based beam position monitor. , 2019, , .		2
44	SQUID amplifiers for axion search experiments. Cryogenics, 2018, 91, 125-127.	1.7	10
45	Phase-matching of multiple-cavity detectors for dark matter axion search. Astroparticle Physics, 2018, 97, 33-37.	4.3	28
46	High magnetic fields for fundamental physics. Physics Reports, 2018, 765-766, 1-39.	25.6	87
47	Non-Collider Particle Physics Experiments. Journal of the Korean Physical Society, 2018, 73, 203-217.	0.7	0
48	Concept of multiple-cell cavity for axion dark matter search. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 777, 412-419.	4.1	48
49	Connection between zero chromaticity and long in-plane polarization lifetime in a magnetic storage ring. Physical Review Accelerators and Beams, 2018, 21, .	1.6	10
50	Correlation of Fe-Based Superconductivity and Electron-Phonon Coupling in an FeAsO_x Heterostructure. Physical Review Letters, 2017, 119, 107003.	7.8	24
51	First axion dark matter search with toroidal geometry. Physical Review D, 2017, 96, .	4.7	23
52	Storage Ring EDM Experiments. EPJ Web of Conferences, 2016, 118, 01032.	0.3	6
53	Spin and Beam Dynamics in the Muon ($g - 2$) Experiments. Journal of the Physical Society of Japan, 2016, 85, 091001.	1.6	3
54	Electric and magnetic energy at axion haloscopes. Physical Review D, 2016, 94, .	4.7	10

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55	A storage ring experiment to detect a proton electric dipole moment. Review of Scientific Instruments, 2016, 87, 115116.	1.3	85
56	High-Field Solenoid Development for Axion Dark Matter Search at CAPP/IBS. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	5
57	The Measurement of the Anomalous Magnetic Moment of the Muon at Fermilab. Journal of Physical and Chemical Reference Data, 2015, 44, .	4.2	17
58	The IAXO Helioscope. Journal of Physics: Conference Series, 2015, 650, 012009.	0.4	2
59	Bosonic coherent motions in the Universe. Frontiers in Physics, 2014, 2, .	2.1	13
60	Fringe electric fields of flat and cylindrical deflectors in electrostatic charged particle storage rings. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	13
61	Measuring the polarization of a rapidly precessing deuteron beam. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	31
62	The 11 years solar cycle as the manifestation of the dark Universe. Modern Physics Letters A, 2014, 29, 1440008.	1.2	9
63	Results of precision particle simulations in an all-electric ring lattice using fourth-order Runge-Kutta integration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 743, 96-102.	1.6	10
64	Conceptual design of the International Axion Observatory (IAXO). Journal of Instrumentation, 2014, 9, T05002-T05002.	1.2	201
65	rf Wien filter in an electric dipole moment storage ring: The "partially frozen spin" effect. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	26
66	Synchrotron oscillation effects on an rf-solenoid spin resonance. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	14
67	Prospects for searching axionlike particle dark matter with dipole, toroidal, and wiggler magnets. Physical Review D, 2012, 85, .	4.7	41
68	Spin rotation by Earth's gravitational field in a "frozen-spin" ring. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2822-2829.	2.1	15
69	Review of EDM experiments. Journal of Physics: Conference Series, 2011, 335, 012012.	0.4	11
70	Study By Spin Tracking of A Storage Ring For Deuteron Electric Dipole Moment. , 2009, , .		0
71	Improved limit on the muon electric dipole moment. Physical Review D, 2009, 80, .	4.7	215
72	The status of the Storage Ring EDM experiment. , 2009, , .		5

#	ARTICLE	IF	CITATIONS
73	Review of Electric Dipole Moments of Fundamental Particles. , 2009, , .		3
74	Search for a Permanent EDM of Charged Particles Using Storage Rings. Advanced Series on Directions in High Energy Physics, 2009, , 655-682.	0.7	0
75	Search for Lorentz and C violation effects in muon spin precession. Physical Review Letters, 2008, 100, 091602.	7.8	57
76	Magnetic and Electric Dipole Moments in Storage Rings. , 2008, , 97-113.		4
77	Final report of the E821 muon anomalous magnetic moment measurement at BNL. Physical Review D, 2006, 73, .	4.7	1,800
78	Resonance Method of Electric-Dipole-Moment Measurements in Storage Rings. Physical Review Letters, 2006, 96, 214802.	7.8	88
79	The MECO Experiment at BNL. Nuclear Physics, Section B, Proceedings Supplements, 2005, 149, 372-374.	0.4	1
80	Summary of Working Group 4 - Intense Muon Physics -. Nuclear Physics, Section B, Proceedings Supplements, 2005, 149, 329-336.	0.4	0
81	A New Experiment to Measure the Muon Electric Dipole Moment. AIP Conference Proceedings, 2004, , .	0.4	4
82	New Method of Measuring Electric Dipole Moments in Storage Rings. Physical Review Letters, 2004, 93, 052001.	7.8	204
83	A New Method For A Sensitive Deuteron EDM Experiment. AIP Conference Proceedings, 2004, , .	0.4	52
84	Measurement of the Negative Muon Anomalous Magnetic Moment to 0.7 ppm. Physical Review Letters, 2004, 92, 161802.	7.8	628
85	Electric dipole moments of fundamental particles. Nuclear Physics, Section B, Proceedings Supplements, 2004, 131, 244-251.	0.4	16
86	A fast non-ferric kicker for the muon ($g-2$) experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 496, 8-25.	1.6	25
87	The Brookhaven muon ($g-2$) storage ring high voltage quadrupoles. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 503, 458-484.	1.6	33
88	Measurement of the muon anomalous magnetic moment to 0.7 ppm. Nuclear Physics, Section B, Proceedings Supplements, 2003, 117, 373-384.	0.4	1
89	New laboratory technique for measuring the photon charge. Physical Review D, 2003, 67, .	4.7	6
90	Publisher's Note: Measurement of the Positive Muon Anomalous Magnetic Moment to 0.7 ppm [Phys. Rev. Lett.89, 101804 (2002)]. Physical Review Letters, 2002, 89, .	7.8	145

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91	Novel single shot scheme to measure submillimeter electron bunch lengths using electro-optic technique. Physical Review Special Topics: Accelerators and Beams, 2002, 5, .	1.8	12
92	Precision measurement of the muon anomalous magnetic moment. AIP Conference Proceedings, 2002, , .	0.4	0
93	Recent results and current status of the muon $g - 2$ experiment at BNL. Canadian Journal of Physics, 2002, 80, 1355-1364.	1.1	2
94	Muon revolution frequency distribution from a partial-time Fourier transform of the $g-2$ signal in the muon $g-2$ experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 482, 767-775.	1.6	11
95	Measurement of the Positive Muon Anomalous Magnetic Moment to 0.7 ppm . Physical Review Letters, 2002, 89, 101804.	7.8	378
96	A sensitive search for a muon electric dipole moment. AIP Conference Proceedings, 2001, , .	0.4	9
97	The muon anomalous magnetic moment experiment at Brookhaven. AIP Conference Proceedings, 2001, , .	0.4	0
98	Precise Measurement of the Positive Muon Anomalous Magnetic Moment. Physical Review Letters, 2001, 86, 2227-2231.	7.8	489
99	Electro-optical measurements of ultrashort 45 MeV electron beam bunch. International Journal of Modern Physics A, 2001, 16, 1150-1152.	1.5	1
100	MUON $g-2$ EXPERIMENT AT BROOKHAVEN NATIONAL LABORATORY. International Journal of Modern Physics A, 2001, 16, 287-291.	1.5	2
101	A Sensitive Search for a Muon Electric Dipole Moment. International Journal of Modern Physics A, 2001, 16, 690-693.	1.5	7
102	Electro-optical measurements of picosecond bunch length of a 45 MeV electron beam. Journal of Applied Physics, 2001, 89, 4921-4926.	2.5	10
103	Improved measurement of the positive muon anomalous magnetic moment. Physical Review D, 2000, 62, .	4.7	70
104	First results from the new muon ($g-2$) experiment. , 1999, , .		0
105	New Measurement of the Anomalous Magnetic Moment of the Positive Muon. Physical Review Letters, 1999, 82, 1632-1635.	7.8	87
106	Status of the BNL muon ($g-2$) experiment. IEEE Transactions on Instrumentation and Measurement, 1999, 48, 182-185.	4.7	0
107	Effect of light flash on photocathodes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 394, 7-12.	1.6	2
108	Estimation of non-linearity in NMR polarization measurement. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 356, 83-87.	1.6	4

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109	Search for solar axions. Physical Review Letters, 1992, 69, 2333-2336.	7.8	114
110	Results of a laboratory search for cosmic axions and other weakly coupled light particles. Physical Review D, 1989, 40, 3153-3167.	4.7	182
111	Improved Limits from the Galactic Axion Search. Astrophysics and Space Science Library, 1989, , 293-296.	2.7	0
112	Anomalous rf magnetoresistance in copper at 4 K. Applied Physics Letters, 1988, 52, 2266-2268.	3.3	8
113	Limits on the abundance and coupling of cosmic axions at $4.5 < m_a < 5.0 \hat{=} 4 eV$. Physical Review Letters, 1987, 59, 839-842.	7.8	246