

Derek F Jackson Kimball

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

3,598
citations

201385

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44
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51
all docs

51
docs citations

51
times ranked

2664
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral signatures of axionlike dark matter. <i>Physical Review D</i> , 2022, 105, .	1.6	15
2	Earth as a transducer for axion dark-matter detection. <i>Physical Review D</i> , 2022, 105, .	1.6	15
3	Quantum sensor networks as exotic field telescopes for multi-messenger astronomy. <i>Nature Astronomy</i> , 2021, 5, 150-158.	4.2	21
4	Ferromagnetic gyroscopes for tests of fundamental physics. <i>Quantum Science and Technology</i> , 2021, 6, 024006.	2.6	12
5	Gravity Probe Spin: Prospects for measuring general-relativistic precession of intrinsic spin using a ferromagnetic gyroscope. <i>Physical Review D</i> , 2021, 103, .	1.6	18
6	Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , 2021, 126, 141802.	2.9	51
7	Quantum sensitivity limits of nuclear magnetic resonance experiments searching for new fundamental physics. <i>Quantum Science and Technology</i> , 2021, 6, 034007.	2.6	10
8	Surpassing the Energy Resolution Limit with Ferromagnetic Torque Sensors. <i>Physical Review Letters</i> , 2021, 127, 070801.	2.9	10
9	Earth as a transducer for dark-photon dark-matter detection. <i>Physical Review D</i> , 2021, 104, .	1.6	19
10	Search for dark-photon dark matter in the SuperMAG geomagnetic field dataset. <i>Physical Review D</i> , 2021, 104, .	1.6	13
11	Stochastic fluctuations of bosonic dark matter. <i>Nature Communications</i> , 2021, 12, 7321.	5.8	59
12	Search for topological defect dark matter with a global network of optical magnetometers. <i>Nature Physics</i> , 2021, 17, 1396-1401.	6.5	42
13	A network of superconducting gravimeters as a detector of matter with feeble nongravitational coupling. <i>European Physical Journal D</i> , 2020, 74, 1.	0.6	5
14	Analysis method for detecting topological defect dark matter with a global magnetometer network. <i>Physics of the Dark Universe</i> , 2020, 28, 100494.	1.8	23
15	Overview of the Cosmic Axion Spin Precession Experiment (CASPER). <i>Springer Proceedings in Physics</i> , 2020, , 105-121.	0.1	31
16	Wu et al. Reply:. <i>Physical Review Letters</i> , 2019, 123, 169002.	2.9	2
17	Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance. <i>Science Advances</i> , 2019, 5, eaax4539.	4.7	75
18	Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer. <i>Physical Review Letters</i> , 2019, 122, 191302.	2.9	79

#	ARTICLE	IF	CITATIONS
19	Measurement of the Ratio between g Factors of the Ground States of ^{87}Rb and ^{85}Rb . <i>Annalen Der Physik</i> , 2019, 531, 1800281.	0.9	9
20	Dynamics of a Ferromagnetic Particle Levitated over a Superconductor. <i>Physical Review Applied</i> , 2019, 11, .	1.5	32
21	Searching for axion stars and Q -balls with a terrestrial magnetometer network. <i>Physical Review D</i> , 2018, 97, .	1.6	42
22	The cosmic axion spin precession experiment (CASPER): a dark-matter search with nuclear magnetic resonance. <i>Quantum Science and Technology</i> , 2018, 3, 014008.	2.6	48
23	Spin Gyroscope is Ready to Look for New Physics. <i>Physics Magazine</i> , 2018, 11, .	0.1	0
24	Characterization of the global network of optical magnetometers to search for exotic physics (GNOME). <i>Physics of the Dark Universe</i> , 2018, 22, 162-180.	1.8	48
25	Constraints on Exotic Spin-Dependent Interactions Between Matter and Antimatter from Antiprotonic Helium Spectroscopy. <i>Physical Review Letters</i> , 2018, 120, 183002.	2.9	36
26	Search for new physics with atoms and molecules. <i>Reviews of Modern Physics</i> , 2018, 90, .	16.4	902
27	Nuclear-Spin Comagnetometer Based on a Liquid of Identical Molecules. <i>Physical Review Letters</i> , 2018, 121, 023202.	2.9	30
28	Application of spin-exchange relaxation-free magnetometry to the Cosmic Axion Spin Precession Experiment. <i>Physics of the Dark Universe</i> , 2018, 19, 27-35.	1.8	50
29	Constraints on exotic spin-dependent interactions between electrons from helium fine-structure spectroscopy. <i>Physical Review A</i> , 2017, 95, .	1.0	49
30	Constraints on long-range spin-gravity and monopole-dipole couplings of the proton. <i>Physical Review D</i> , 2017, 96, .	1.6	38
31	<i>In situ</i> measurement of light polarization with ellipticity-induced nonlinear magneto-optical rotation. <i>Physical Review A</i> , 2017, 96, .	1.0	12
32	Precessing Ferromagnetic Needle Magnetometer. <i>Physical Review Letters</i> , 2016, 116, 190801.	2.9	47
33	Paper craft. <i>Nature</i> , 2016, 529, 427-428.	13.7	2
34	Constraints on Exotic Dipole-Dipole Couplings between Electrons at the Micrometer Scale. <i>Physical Review Letters</i> , 2015, 115, 081801.	2.9	38
35	PROSPECTS FOR A GLOBAL NETWORK OF OPTICAL MAGNETOMETERS FOR EXOTIC PHYSICS (GNOME). , 2014, , 115-118.		0
36	A dual-isotope rubidium comagnetometer to search for anomalous long-range spin-mass (spin-gravity) couplings of the proton. <i>Annalen Der Physik</i> , 2013, 525, 514-528.	0.9	31

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37	The Global Network of Optical Magnetometers for Exotic physics (GNOME): A novel scheme to search for physics beyond the Standard Model. <i>Annalen Der Physik</i> , 2013, 525, 659-670.	0.9	89
38	General principles and characteristics of optical magnetometers. , 2013, , 3-24.		3
39	Investigation of antirelaxation coatings for alkali-metal vapor cells using surface science techniques. <i>Journal of Chemical Physics</i> , 2010, 133, 144703.	1.2	45
40	Can a Quantum Nondemolition Measurement Improve the Sensitivity of an Atomic Magnetometer?. <i>Physical Review Letters</i> , 2004, 93, 173002.	2.9	107
41	Hyperpolarized Xenon Nuclear Spins Detected by Optical Atomic Magnetometry. <i>Physical Review Letters</i> , 2004, 93, 160801.	2.9	70
42	Alignment-to-orientation conversion and nuclear quadrupole resonance. <i>Chemical Physics Letters</i> , 2003, 378, 440-448.	1.2	3
43	Selective Addressing of High-Rank Atomic Polarization Moments. <i>Physical Review Letters</i> , 2003, 90, 253001.	2.9	55
44	Resonant nonlinear magneto-optical effects in atoms. <i>Reviews of Modern Physics</i> , 2002, 74, 1153-1201.	16.4	643
45	Nonlinear Magneto-optical Rotation via Alignment-to-Orientation Conversion. <i>Physical Review Letters</i> , 2000, 85, 2088-2091.	2.9	90
46	Collisional perturbation of states in atomic ytterbium by helium and neon. <i>Physical Review A</i> , 1999, 60, 1103-1112.	1.0	14
47	Nonlinear Magneto-optics and Reduced Group Velocity of Light in Atomic Vapor with Slow Ground State Relaxation. <i>Physical Review Letters</i> , 1999, 83, 1767-1770.	2.9	560
48	Optical magnetometry with modulated light. , 0, , 104-124.		2
49	Tests of fundamental physics with optical magnetometers. , 0, , 339-368.		1