David C Moore

List of Publications by Year
in descending order

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80 papers	4,983 citations	147801 31 h-index	88630 70 g-index
80 all docs	80 docs citations	80 times ranked	5770 citing authors

#	Article	IF	Citations
1	Coherent Scattering of Low Mass Dark Matter from Optically Trapped Sensors. Physical Review Letters, 2022, 128, 101301.	7.8	21
2	Mechanical quantum sensing in the search for dark matter. Quantum Science and Technology, 2021, 6, 024002.	5.8	67
3	Searching for new physics using optically levitated sensors. Quantum Science and Technology, 2021, 6, 014008.	5.8	70
4	Limits on the abundance of millicharged particles bound to matter. Physical Review D, 2021, 104, .	4.7	14
5	Trapped Electrons and Ions as Particle Detectors. Physical Review Letters, 2021, 127, 061804.	7.8	11
6	Control and measurement of electric dipole moments in levitated optomechanics. Physical Review A, 2021, 104, .	2.5	9
7	Kiloton-scale xenon detectors for neutrinoless double beta decay and other new physics searches. Physical Review D, 2021, 104, .	4.7	11
8	Search for Composite Dark Matter with Optically Levitated Sensors. Physical Review Letters, 2020, 125, 181102.	7.8	56
9	Force and acceleration sensing with optically levitated nanogram masses at microkelvin temperatures. Physical Review A, 2020, 101, .	2.5	87
10	Measurement of the Spectral Shape of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math> -Decay of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Xe</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>137</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> t.	7.8	6
11	Reflectivity and PDE of VUV4 Hamamatsu SiPMs in liquid xenon. Journal of Instrumentation, 2020, 15, P01019-P01019.	1.2	9
12	Measurement of the scintillation and ionization response of liquid xenon at MeV energies in the EXO-200 experiment. Physical Review C, 2020, 101, .	2.9	18
13	Characterization of the Hamamatsu VUV4 MPPCs for nEXO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 371-379.	1.6	28
14	Search for Neutrinoless Double- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î²</mml:mi></mml:mrow></mml:math> Decay with the Complete EXO-200 Dataset. Physical Review Letters, 2019, 123, 161802.	7.8	163
15	Simulation of charge readout with segmented tiles in nEXO. Journal of Instrumentation, 2019, 14, P09020-P09020.	1.2	8
16	Imaging individual barium atoms in solid xenon for barium tagging in nEXO. Nature, 2019, 569, 203-207.	27.8	26
17	Fabrication of large vaterite microspheres for optical trapping and rotation in high vacuum. , 2019, , .		0
18	Search for Neutrinoless Double-Beta Decay with the Upgraded EXO-200 Detector. Physical Review Letters, 2018, 120, 072701.	7.8	152

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19	Single-beam dielectric-microsphere trapping with optical heterodyne detection. Physical Review A, 2018, 97, .	2.5	32
20	Search for nucleon decays with EXO-200. Physical Review D, 2018, 97, .	4.7	14
21	Characterization of an Ionization Readout Tile for nEXO. Journal of Instrumentation, 2018, 13, P01006-P01006.	1.2	14
22	VUV-Sensitive Silicon Photomultipliers for Xenon Scintillation Light Detection in nEXO. IEEE Transactions on Nuclear Science, 2018, 65, 2823-2833.	2.0	29
23	Study of silicon photomultiplier performance in external electric fields. Journal of Instrumentation, 2018, 13, T09006-T09006.	1.2	5
24	Deep neural networks for energy and position reconstruction in EXO-200. Journal of Instrumentation, 2018, 13, P08023-P08023.	1.2	34
25	Optical rotation of levitated spheres in high vacuum. Physical Review A, 2018, 97, .	2.5	61
26	Nuclear-recoil energy scale in CDMS II silicon dark-matter detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 905, 71-81.	1.6	11
27	Sensitivity and discovery potential of the proposed nEXO experiment to neutrinoless double-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi></mml:math> decay. Physical Review C, 2018, 97, .	2.9	115
28	Tests of fundamental physics with optically levitated microspheres in high vacuum. , 2018, , .		1
29	Measurement of the drift velocity and transverse diffusion of electrons in liquid xenon with the EXO-200 detector. Physical Review C, 2017, 95, .	2.9	28
30	Trace radioactive impurities in final construction materials for EXO-200. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 871, 169-179.	1.6	25
31	Optical levitation of 10-ng spheres with nano- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>g</mml:mi></mml:math> acceleration sensitivity. Physical Review A, 2017, 96, .	2.5	93
32	Searches for double beta decay of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Xe</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>134</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> with EXO-200. Physical Review D, 2017, 96, .	4.7	9
33	A Density Staggered Cantilever for Micron Length Gravity Probing. , 2017, , .		4
34	Cosmogenic backgrounds to 0Î½Î²Î² in EXO-200. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 029-029.	5.4	20
35	An optimal energy estimator to reduce correlated noise for the EXO-200 light readout. Journal of Instrumentation, 2016, 11, P07015-P07015.	1.2	9
36	Search for Screened Interactions Associated with Dark Energy below the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>100</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mi>Î¼</mml:mi><mml:mi mathvariant="normal">m</mml:mi></mml:mrow></mml:math>Length Scale. Physical Review Letters, 2016, 117, 101101.	7.8	116

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37	xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>Î½</mml:mi><mml:mi>Î²</mml:mi> of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Xe</mml:mi><mml:mprescripts /><mml:none /><mml:mn>136</mml:mn></mml:mmultiscripts></mml:math>to the<mml:math	2.9	13
38	First search for Lorentz and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>C</mml:mi><mml:mi>P</mml:mi><mml:mi>T</mml:mi></mml:math>violation in double beta decay with EXO-200. Physical Review D, 2016, 93, .	4.7	39
39	Investigation of radioactivity-induced backgrounds in EXO-200. Physical Review C, 2015, 92, .	2.9	32
40	Measurements of the ion fraction and mobility of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext></mml:mrow> xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î²</mml:mi></mml:mrow></mml:math>-decay products in liquid xenon using the EXO-200 detector. Physical Review C, 2015, 92, .	2.9	36
41	An RF-only ion-funnel for extraction from high-pressure gases. International Journal of Mass Spectrometry, 2015, 379, 110-120.	1.5	29
42	First Direct Limits on Lightly Ionizing Particles with Electric Charge Less than e/6. Physical Review Letters, 2015, 114, 111302.	7.8	20
43	Spectroscopy of Ba and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi>Ba</mml:mi></mml:mrow><mml:mo>+</mml:mo> in solid xenon for barium tagging in nEXO. Physical Review A, 2015, 91, .	2.9	29
44	Maximum likelihood analysis of low energy CDMS II germanium data. Physical Review D, 2015, 91, .	4.7	10
45	An apparatus to manipulate and identify individual Ba ions from bulk liquid Xe. Review of Scientific Instruments, 2014, 85, 095114.	1.3	14
46	Search for Millicharged Particles Using Optically Levitated Microspheres. Physical Review Letters, 2014, 113, 251801.	7.8	131
47	Search for Majoron-emitting modes of double-beta decay of^{136}Xe with EXO-200. Physical Review D, 2014, 90, .	4.7	41
48	Improved measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>Î½</mml:mi><mml:mi>Î²</mml:mi> of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow /><mml:mn>136</mml:mn></mml:msup></mml:math>Xe with the EXO-200 detector. Physical Review C, 2014, 89, .	2.9	135
49	Search for Low-Mass Weakly Interacting Massive Particles Using Voltage-Assisted Calorimetric Ionization Detection in the SuperCDMS Experiment. Physical Review Letters, 2014, 112, 041302.	7.8	221
50	Particle Detection Using MKID-Based Athermal-Phonon Mediated Detectors. Journal of Low Temperature Physics, 2014, 176, 891-897.	1.4	3
51	Search for Majorana neutrinos with the first two years of EXO-200 data. Nature, 2014, 510, 229-234.	27.8	355
52	SuperCDMS status from Soudan and plans for SNOLab. , 2013, , .		8
53	Publisherâ€™s Note: Silicon detector results from the first five-tower run of CDMS II [Phys. Rev. D88, 031104(R) (2013)]. Physical Review D, 2013, 88, .	4.7	4
54	Silicon detector results from the first five-tower run of CDMS II. Physical Review D, 2013, 88, .	4.7	43

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55	Demonstration of surface electron rejection with interleaved germanium detectors for dark matter searches. Applied Physics Letters, 2013, 103, .	3.3	51
56	Silicon Detector Dark Matter Results from the Final Exposure of CDMS II. Physical Review Letters, 2013, 111, 251301.	7.8	410
57	Position and energy-resolved particle detection using phonon-mediated microwave kinetic inductance detectors. Applied Physics Letters, 2012, 100, .	3.3	57
58	High-resolution gamma-ray detection using phonon-mediated detectors. , 2012, , .		0
59	Phonon Mediated Microwave Kinetic Inductance Detectors. Journal of Low Temperature Physics, 2012, 167, 329-334.	1.4	7
60	Search for inelastic dark matter with the CDMS II experiment. Physical Review D, 2011, 83, .	4.7	22
61	Combined limits on WIMPs from the CDMS and EDELWEISS experiments. Physical Review D, 2011, 84, .	4.7	63
62	Results from a Low-Energy Analysis of the CDMS II Germanium Data. Physical Review Letters, 2011, 106, 131302.	7.8	419
63	Dark Matter Search Results from the CDMS II Experiment. Science, 2010, 327, 1619-1621.	12.6	627
64	ARCHONS: a highly multiplexed superconducting optical to near-IR camera. Proceedings of SPIE, 2010, , .	0.8	20
65	Thin film dielectric microstrip kinetic inductance detectors. Applied Physics Letters, 2010, 96, .	3.3	31
66	Titanium nitride films for ultrasensitive microresonator detectors. Applied Physics Letters, 2010, 97, .	3.3	191
67	Low-threshold analysis of CDMS shallow-site data. Physical Review D, 2010, 82, .	4.7	95
68	Analysis of the low-energy electron-recoil spectrum of the CDMS experiment. Physical Review D, 2010, 81, .	4.7	31
69	Search for Axions with the CDMS Experiment. Physical Review Letters, 2009, 103, 141802.	7.8	80
70	The Cryogenic Dark Matter Search (CDMS) : Present Status and Future. , 2009, , .		4
71	The Cryogenic Dark Matter Search (CDMS) experiment: Results, status and perspective. , 2009, , .		0
72	Bulk and Surface Charge Collection: CDMS Detector Performance and Design Implications. , 2009, , .		3

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73	Quasiparticle Trapping in Microwave Kinetic Inductance Strip Detectors. AIP Conference Proceedings, 2009, , .	0.4	7
74	SuperCDMS Detector Readout Cryogenic Hardware. , 2009, , .		1
75	Characterization of SuperCDMS 1-inch Ge Detectors. , 2009, , .		1
76	SuperCDMS Detector Fabrication Advances. AIP Conference Proceedings, 2009, , .	0.4	6
77	A WIMP Dark Matter Detector Using MKIDs. Journal of Low Temperature Physics, 2008, 151, 550-556.	1.4	19
78	Angular momentum on the lattice: The case of nonzero linear momentum. Physical Review D, 2006, 73, .	4.7	45
79	The Multiwavelength Survey by Yaleâ€Chile (MUSYC): Survey Design and Deep Public UBVRI z â€² Images and Catalogs of the Extended Hubble Deep Fieldâ€“South. Astrophysical Journal, Supplement Series, 2006, 162, 1-19.	7.7	228
80	Multiparticle states and the hadron spectrum on the lattice. Physical Review D, 2006, 74, .	4.7	26