

Pieter Mumm

List of Publications by Year in descending order

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51
papers

1,019
citations

394421

19
h-index

434195

31
g-index

52
all docs

52
docs citations

52
times ranked

961
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutron-antineutron oscillations: Theoretical status and experimental prospects. Physics Reports, 2016, 612, 1-45.	25.6	138
2	First Search for Short-Baseline Neutrino Oscillations at HFIR with PROSPECT. Physical Review Letters, 2018, 121, 251802.	7.8	99
3	Improved short-baseline neutrino oscillation search and energy spectrum measurement with the PROSPECT experiment at HFIR. Physical Review D, 2021, 103, .	4.7	60
4	The PROSPECT physics program. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 113001.	3.6	53
5	New limit on the Dcoefficient in polarized neutron decay. Physical Review C, 2000, 62, .	2.9	45
6	New Limit on Time-Reversal Violation in Beta Decay. Physical Review Letters, 2011, 107, 102301.	7.8	43
7	The PROSPECT reactor antineutrino experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 922, 287-309.	1.6	40
8	Measurement of the Antineutrino Spectrum from U Fission at HFIR with PROSPECT. Physical Review Letters, 2019, 122, 251801.	7.8	39
9	Observation of the radiative decay mode of the free neutron. Nature, 2006, 444, 1059-1062.	27.8	36
10	Upper bound on parity-violating neutron spin rotation in He4. Physical Review C, 2011, 83, .	2.9	36
11	Search for a T -odd, P -even triple correlation in neutron decay. Physical Review C, 2012, 86, .	2.9	34
12	New high-sensitivity searches for neutrons converting into antineutrons and/or sterile neutrons at the HIBEAM/NNBAR experiment at the European Spallation Source. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 070501.	3.6	33
13	Limits on sub-GeV dark matter from the PROSPECT reactor antineutrino experiment. Physical Review D, 2021, 104, .	4.7	29
14	Radiative \hat{I}^2 decay of the free neutron. Physical Review C, 2010, 81, .	2.9	26
15	Precision Measurement of the Radiative \hat{I}^2 Decay of the Free Neutron. Physical Review Letters, 2016, 116, 242501.	7.8	23
16	Performance of a segmented ⁶ Li-loaded liquid scintillator detector for the PROSPECT experiment. Journal of Instrumentation, 2018, 13, P06023-P06023.	1.2	23
17	Background radiation measurements at high power research reactors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 806, 401-419.	1.6	22
18	emiT: An apparatus to test time reversal invariance in polarized neutron decay. Review of Scientific Instruments, 2004, 75, 5343-5355.	1.3	20

#	ARTICLE	IF	CITATIONS
19	Light collection and pulse-shape discrimination in elongated scintillator cells for the PROSPECT reactor antineutrino experiment. <i>Journal of Instrumentation</i> , 2015, 10, P11004-P11004.	1.2	19
20	Measuring the neutron lifetime using magnetically trapped neutrons. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 611, 171-175.	1.6	18
21	Experimental parameters for a reactor antineutrino experiment at very short baselines. <i>Physical Review D</i> , 2013, 87, .	4.7	16
22	Lithium-loaded liquid scintillator production for the PROSPECT experiment. <i>Journal of Instrumentation</i> , 2019, 14, P03026-P03026.	1.2	16
23	A slow neutron polarimeter for the measurement of parity-odd neutron rotary power. <i>Review of Scientific Instruments</i> , 2015, 86, 055101.	1.3	14
24	Invited Article: Development of high-field superconducting Ioffe magnetic traps. <i>Review of Scientific Instruments</i> , 2008, 79, 031301.	1.3	12
25	Joint Determination of Reactor Antineutrino Spectra from U	7.8	12
26	Joint Measurement of the U	7.8	11
27	Antineutrino Spectrum by PROSPECT and STEREO. <i>Physical Review Letters</i> , 2022, 128, 081802. Polarized neutron beam properties for measuring parity-violating spin rotation in liquid 4He. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 631, 80-89.	1.6	10
28	A low mass optical grid for the PROSPECT reactor antineutrino detector. <i>Journal of Instrumentation</i> , 2019, 14, P04014-P04014.	1.2	10
29	Invited Article: miniTimeCube. <i>Review of Scientific Instruments</i> , 2016, 87, 021301.	1.3	8
30	Particle and photon detection for a neutron radiative decay experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 579, 447-450.	1.6	7
31	Measurement of the parity-violating neutron spin rotation in He-4. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2005, 110, 205.	1.2	7
32	An experiment for the precision measurement of the radiative decay mode of the neutron. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 611, 219-223.	1.6	6
33	A gamma- and X-ray detector for cryogenic, high magnetic field applications. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 691, 64-71.	1.6	6
34	Experimental upper bound and theoretical expectations for parity-violating neutron spin rotation in He	2.9	6
35	Phase stability and lithium loading capacity in a liquid scintillation cocktail. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2017, 314, 767-771.	1.5	5
36	Optimum lithium loading of a liquid scintillator for neutron and neutrino detection. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 953, 163126.	1.6	5

#	ARTICLE	IF	CITATIONS
37	Time reversal in polarized neutron decay: the emiT experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 648-652.	1.6	4
38	High-sensitivity measurement of ^3He isotopic ratios for ultracold neutron experiments. Physical Review C, 2016, 93, .	2.9	4
39	Nonfuel antineutrino contributions in the ORNL High Flux Isotope Reactor (HFIR). Physical Review C, 2020, 101, .	2.9	4
40	Design and performance of a cryogenic apparatus for magnetically trapping ultracold neutrons. Cryogenics, 2014, 64, 40-50.	1.7	3
41	Resolving the neutron lifetime puzzle. Science, 2018, 360, 605-606.	12.6	3
42	The radioactive source calibration system of the PROSPECT reactor antineutrino detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 944, 162465.	1.6	3
43	A zero-to-few-hundred eV proton beam for calibrations of neutron \hat{I}^2 decay experiments. Nuclear Instruments & Methods in Physics Research B, 2002, 197, 278-281.	1.4	2
44	Radiative decay of the free neutron. AIP Conference Proceedings, 2007, , .	0.4	2
45	Studies of MCP-PMTs in the miniTimeCube neutrino detector. AIP Advances, 2018, 8, 095003.	1.3	2
46	Proposed Measurement of the Parity-Violating Neutron Spin Rotation in ^4He . AIP Conference Proceedings, 2006, , .	0.4	1
47	Time reversal and the neutron. Hyperfine Interactions, 2013, 214, 97-104.	0.5	1
48	Survival analysis approach to account for non-exponential decay rate effects in lifetime experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 813, 84-95.	1.6	1
49	Progress Towards a Precision Measurement of the Neutron Lifetime Using Magnetically Trapped Ultracold Neutrons. AIP Conference Proceedings, 2006, , .	0.4	0
50	A new limit on time-reversal violation in beta decay: Results of the emiTII experiment. , 2012, , .		0
51	X-ray tomography of internal components of the NBS-1 photo-neutron source (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T15		