Karsten M Heeger

List of Publications by Year
in descending order

108	9,023	76326	38395
papers	citations	40 h-index	95 g-index

108	108	108	5132
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CUORE opens the door to tonne-scale cryogenics experiments. Progress in Particle and Nuclear Physics, 2022, 122, 103902.	14.4	16
2	Search for Majorana neutrinos exploiting millikelvin cryogenics with CUORE. Nature, 2022, 604, 53-58.	27.8	74
3	Joint Measurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">U</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>235</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> Antineutrino Spectrum by PROSPECT and STEREO. Physical Review Letters, 2022, 128, 081802.	7.8	11
4	A CUPID Li₂¹⁰⁰MoO₄ scintillating bolometer tested in the CROSS underground facility. Journal of Instrumentation, 2021, 16, P02037-P02037.	1.2	16
5	Measurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>2</mml:mn><mml:mi>Î½</mml:mi><mml:mi>Î²</mml:mi><mml:mi>Î²</mml:mi></mml:math> Decay Half-Life of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Te</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>130</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>	7.8	29
6	CUORE: The first bolometric experiment at the ton scale for the search for neutrino-less double beta decay. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 958, 162440.	1.6	2
7	Volume I. Introduction to DUNE. Journal of Instrumentation, 2020, 15, T08008-T08008.	1.2	168
8	Volume IV. The DUNE far detector single-phase technology. Journal of Instrumentation, 2020, 15, T08010-T08010.	1.2	86
9	Volume III. DUNE far detector technical coordination. Journal of Instrumentation, 2020, 15, T08009-T08009.	1.2	25
10	Improved Limit on Neutrinoless Double-Beta Decay in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mo>â€‰</mml:mo><mml:mi>Te</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>130</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> with CUORE. Physical Review Letters, 2020, 124, 122501.	7.8	133
11	The CUORE Detector and Results. Journal of Low Temperature Physics, 2020, 199, 519-528.	1.4	14
12	A high precision calibration of the nonlinear energy response at Daya Bay. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 230-242.	1.6	21
13	Measurement of the Antineutrino Spectrum from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">U</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>235</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> Fission at HFIR with PROSPECT. Physical Review Letters, 2019, 122, 251801.	7.8	39
14	Neutrino-Based Tools for Nuclear Verification and Diplomacy in North Korea. Science and Global Security, 2019, 27, 15-28.	0.3	7
15	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
16	Extraction of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">U</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>235</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Pu</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>239</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> Fission Rates in the PROSPECT Reactor Antineutrino Experiment. Physical Review Letters, 2018, 121, 251802.	7.8	47
17	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
18	A low mass optical grid for the PROSPECT reactor antineutrino detector. Journal of Instrumentation, 2019, 14, P04014-P04014.	1.2	10

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19	Lithium-loaded liquid scintillator production for the PROSPECT experiment. Journal of Instrumentation, 2019, 14, P03026-P03026.	1.2	16
20	Locust: C++ software for simulation of RF detection. New Journal of Physics, 2019, 21, 113051.	2.9	4
21	CUORE: The first bolometric experiment at the ton scale for rare decay searches. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 158-161.	1.6	0
22	Results from the Cuore Experiment â€. Universe, 2019, 5, 10.	2.5	5
23	Seasonal variation of the underground cosmic muon flux observed at Daya Bay. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 001-001.	5.4	12
24	Study of rare nuclear processes with CUORE. International Journal of Modern Physics A, 2018, 33, 1843002.	1.5	11
25	First Results from CUORE: A Search for Lepton Number Violation via <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>0</mml:mn><mml:mi>Î½</mml:mi><mml:mi>Î²</mml:mi><mml:mi>Î²</mml:mi></mml:mrow> Decay of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Te</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>130</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow>	7.8	246
26	First Search for Short-Baseline Neutrino Oscillations at HFIR with PROSPECT. Physical Review Letters, 2018, 121, 251802.	7.8	99
27	Measurement of the Electron Antineutrino Oscillation with 1958 Days of Operation at Daya Bay. Physical Review Letters, 2018, 121, 241805.	7.8	168
28	Performance of a segmented ⁶Li-loaded liquid scintillator detector for the PROSPECT experiment. Journal of Instrumentation, 2018, 13, P06023-P06023.	1.2	23
29	CUORE: first results and prospects. , 2018, , .		0
30	The commissioning of the CUORE experiment: the mini-tower run. , 2018, , .		0
31	Results from the CUORE experiment. , 2018, , .		0
32	The detector calibration system for the CUORE cryogenic bolometer array. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 844, 32-44.	1.6	14
33	Determining the neutrino mass with cyclotron radiation emission spectroscopyâ€"Project 8. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 054004.	3.6	78
34	The CUORE cryostat and its bolometric detector. Journal of Instrumentation, 2017, 12, C02055-C02055.	1.2	2
35	Evolution of the Reactor Antineutrino Flux and Spectrum at Daya Bay. Physical Review Letters, 2017, 118, 251801.	7.8	129
36	Status of the CUORE and results from the CUORE-0 neutrinoless double beta decay experiments. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1719-1725.	0.5	4

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37	Limits on Active to Sterile Neutrino Oscillations from Disappearance Searches in the MINOS, Daya Bay, and Bugey-3 Experiments. Physical Review Letters, 2016, 117, 151801.	7.8	71
38	Improved Search for a Light Sterile Neutrino with the Full Configuration of the Daya Bay Experiment. Physical Review Letters, 2016, 117, 151802.	7.8	65
39	The PROSPECT physics program. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 113001.	3.6	53
40	CUORE-0 detector: design, construction and operation. Journal of Instrumentation, 2016, 11, P07009-P07009.	1.2	64
41	The detector system of the Daya Bay reactor neutrino experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 811, 133-161.	1.6	75
42	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
43	Dark Matter Search with CUORE-0 and CUORE. Physics Procedia, 2015, 61, 13-20.	1.2	2
44	CUORE and Beyond: Bolometric Techniques to Explore Inverted Neutrino Mass Hierarchy. Physics Procedia, 2015, 61, 241-250.	1.2	2
45	Light collection and pulse-shape discrimination in elongated scintillator cells for the PROSPECT reactor antineutrino experiment. Journal of Instrumentation, 2015, 10, P11004-P11004.	1.2	19
46	Search for Neutrinoless 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>Te</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>130</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>with CUORE-0. Physical Review Letters, 2015, 115, 102502.	7.8	189
47	New Measurement of Antineutrino Oscillation with the Full Detector Configuration at Daya Bay. Physical Review Letters, 2015, 115, 111802.	7.8	176
48	First data from CUORE-0. Physics Procedia, 2015, 61, 289-294.	1.2	1
49	Results of CUORE-0 and prospects for the CUORE experiment. Nuclear and Particle Physics Proceedings, 2015, 265-266, 73-76.	0.5	2
50	The muon system of the Daya Bay Reactor antineutrino experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 773, 8-20.	1.6	33
51	A compact ultra-clean system for deploying radioactive sources inside the KamLAND detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 769, 88-96.	1.6	11
52	Laboratory studies on the removal of radon-born lead from KamLAND×3s organic liquid scintillator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 769, 79-87.	1.6	11
53	Results from the Daya Bay Reactor Neutrino Experiment. Nuclear Physics, Section B, Proceedings Supplements, 2014, 246-247, 18-22.	0.4	0
54	Search for a Light Sterile Neutrino at Daya Bay. Physical Review Letters, 2014, 113, 141802.	7.8	79

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55	First CUORE-0 Performance Results and Status of CUORE Experiment. Journal of Low Temperature Physics, 2014, 176, 986-994.	1.4	1
56	Production of a gadolinium-loaded liquid scintillator for the Daya Bay reactor neutrino experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 763, 82-88.	1.6	68
57	The low energy spectrum of TeO₂bolometers: results and dark matter perspectives for the CUORE-0 and CUORE experiments. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 038-038.	5.4	15
58	Leakage tests of the stainless steel vessels of the antineutrino detectors in the Daya Bay reactor neutrino experiment. Science China Technological Sciences, 2013, 56, 148-151.	4.0	3
59	Validation of techniques to mitigate copper surface contamination in CUORE. Astroparticle Physics, 2013, 45, 13-22.	4.3	66
60	Assembly and Installation of the Daya Bay Antineutrino Detectors. Journal of Instrumentation, 2013, 8, T11006-T11006.	1.2	8
61	The Daya Bay antineutrino detector filling system and liquid mass measurement. Journal of Instrumentation, 2013, 8, P09015-P09015.	1.2	4
62	Target mass monitoring and instrumentation in the Daya Bay antineutrino detectors. Journal of Instrumentation, 2013, 8, T04001-T04001.	1.2	4
63	SEARCH FOR EXTRATERRESTRIAL ANTINEUTRINO SOURCES WITH THE KamLAND DETECTOR. Astrophysical Journal, 2012, 745, 193.	4.5	88
64	Acrylic target vessels for a high-precision measurement of Î¸13with the Daya Bay antineutrino detectors. Journal of Instrumentation, 2012, 7, P06004-P06004.	1.2	13
65	Low-background monitoring cameras for the Daya Bay Antineutrino Detectors. Journal of Instrumentation, 2012, 7, P08005-P08005.	1.2	6
66	Daya Bay Antineutrino Detector gas system. Journal of Instrumentation, 2012, 7, P11029-P11029.	1.2	5
67	A side-by-side comparison of Daya Bay antineutrino detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 685, 78-97.	1.6	121
68	Observation of Electron-Antineutrino Disappearance at Daya Bay. Physical Review Letters, 2012, 108, 171803.	7.8	1,751
69	Long-term testing and properties of acrylic for the Daya Bay antineutrino detectors. Journal of Instrumentation, 2012, 7, T08001-T08001.	1.2	3
70	Status of the Cryogen-Free Cryogenic System for the CUORE Experiment. Journal of Low Temperature Physics, 2012, 167, 528-534.	1.4	8
71	CUORE crystal validation runs: Results on radioactive contamination and extrapolation to CUORE background. Astroparticle Physics, 2012, 35, 839-849.	4.3	62
72	A search for the dark matter annual modulation in South Pole ice. Astroparticle Physics, 2012, 35, 749-754.	4.3	25

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73	Partial radiogenic heat model for Earth revealed by geoneutrino measurements. Nature Geoscience, 2011, 4, 647-651.	12.9	196
74	Solar fusion cross sections. II. The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mi>p</mml:mi></mml:math>chain and CNO cycles. Reviews of Modern Physics, 2011, 83, 195-245.	45.6	574
75	Production of radioactive isotopes through cosmic muon spallation in KamLAND. Physical Review C, 2010, 81, .	2.9	132
76	The KamLAND full-volume calibration system. Journal of Instrumentation, 2009, 4, P04017-P04017.	1.2	27
77	Measurement of the cosmic ray and neutrino-induced muon flux at the Sudbury neutrino observatory. Physical Review D, 2009, 80, .	4.7	42
78	UV degradation of the optical properties of acrylic for neutrino and dark matter experiments. Journal of Instrumentation, 2009, 4, T09001-T09001.	1.2	8
79	The low-temperature energy calibration system for the CUORE bolometer array. , 2009, , .		1
80	Precision Measurement of Neutrino Oscillation Parameters with KamLAND. Physical Review Letters, 2008, 100, 221803.	7.8	675
81	Independent measurement of the Total Active<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">B</mml:mi><mml:mprescripts /><mml:none /><mml:mn>8</mml:mn></mml:mmultiscripts></mml:math>Solar Neutrino Flux Using an Array of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /></mml:mmultiscripts>	7.8	262
82	CUORE EXPERIMENT: THE SEARCH FOR NEUTRINOLESS DOUBLE BETA DECAY. International Journal of Modern Physics A, 2008, 23, 3395-3398.	1.5	10
83	Determination of theÎ½eand totalB8solar neutrino fluxes using the Sudbury Neutrino Observatory Phase I data set. Physical Review C, 2007, 75, .	2.9	112
84	An active-shield method for the reduction of surface contamination in CUORE. AIP Conference Proceedings, 2007, , .	0.4	2
85	Passive Shielding in CUORE. AIP Conference Proceedings, 2007, , .	0.4	0
86	An array of low-background 3He proportional counters for the Sudbury Neutrino Observatory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 1054-1080.	1.6	50
87	The CUORICINO and CUORE double beta decay experiments. Progress in Particle and Nuclear Physics, 2006, 57, 203-216.	14.4	7
88	A Search for Neutrinos from the SolarhepReaction and the Diffuse Supernova Neutrino Background with the Sudbury Neutrino Observatory. Astrophysical Journal, 2006, 653, 1545-1551.	4.5	63
89	Search for the Invisible Decay of Neutrons with KamLAND. Physical Review Letters, 2006, 96, 101802.	7.8	50
90	Experimental investigation of geologically produced antineutrinos with KamLAND. Nature, 2005, 436, 499-503.	27.8	343

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91	Measurement of Î¸13 with reactor neutrinos. Nuclear Physics, Section B, Proceedings Supplements, 2005, 138, 330-332.	0.4	0
92	Search for periodicities in theB8solar neutrino flux measured by the Sudbury Neutrino Observatory. Physical Review D, 2005, 72, .	4.7	54
93	EVIDENCE FOR NEUTRINO MASS: A DECADE OF DISCOVERY. , 2005, , .		1
94	TOWARDS A PRECISION MEASUREMENT OF Î¸13 WITH REACTOR NEUTRINOS: INITIATIVES IN THE UNITED STATES. , 2005, , .		0
95	The Future of Reactor Neutrino Experiments A Novel Approach to Measuring Î¸13. AIP Conference Proceedings, 2004, , .	0.4	0
96	Constraints on Nucleon Decay via Invisible Modes from the Sudbury Neutrino Observatory. Physical Review Letters, 2004, 92, 102004.	7.8	40
97	Measurement of the Total ActiveB8Solar Neutrino Flux at the Sudbury Neutrino Observatory with Enhanced Neutral Current Sensitivity. Physical Review Letters, 2004, 92, 181301.	7.8	654
98	Neutral current and day night measurements from the pure D2O phase of SNO. Nuclear Physics, Section B, Proceedings Supplements, 2003, 118, 3-14.	0.4	11
99	Constraining the leading weak axial two-body current by recent solar neutrino flux data. Physical Review C, 2003, 67, .	2.9	30
100	Resolving the solar neutrino problem: Evidence for massive neutrinos in the Sudbury Neutrino Observatory. Europhysics News, 2001, 32, 180-183.	0.3	4
101	The Sudbury Neutrino Observatory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 449, 172-207.	1.6	369
102	Background studies for the neutral current detector array in the Sudbury Neutrino Observatory. Nuclear Physics, Section B, Proceedings Supplements, 2000, 87, 502-503.	0.4	0
103	High-voltage microdischarge in ultra-low background /sup 3/He proportional counters. IEEE Transactions on Nuclear Science, 2000, 47, 1829-1833.	2.0	10
104	Low-background /sup 3/He proportional counters for use in the Sudbury neutrino observatory. IEEE Transactions on Nuclear Science, 1999, 46, 873-876.	2.0	8
105	A model independent analysis of the solar neutrino anomaly. Progress in Particle and Nuclear Physics, 1998, 40, 135-136.	14.4	1
106	Solar fusion cross sections. Reviews of Modern Physics, 1998, 70, 1265-1291.	45.6	556
107	Probability of a Solution to the Solar Neutrino Problem within the Minimal Standard Model. Physical Review Letters, 1996, 77, 3720-3723.	7.8	53
108	High-voltage micro discharge in ultra-low background /sup 3/He proportional counters. , 0, , .		0