Ben Loer

List of Publications by Year in descending order

94 papers	6,717 citations	81900 39 h-index	58581 82 g-index
97 all docs	97 docs citations	97 times ranked	6719 citing authors

#	Article	IF	Citations
1	Investigating the sources of low-energy events in a SuperCDMS-HVeV detector. Physical Review D, 2022, 105, .	4.7	2
2	Ionization yield measurement in a germanium CDMSlite detector using photo-neutron sources. Physical Review D, 2022, 105, .	4.7	5
3	Decision trees for optimizing the minimum detectable concentration of radioxenon detectors. Journal of Environmental Radioactivity, 2021, 229-230, 106542.	1.7	0
4	Constraints on Lightly Ionizing Particles from CDMSlite. Physical Review Letters, 2021, 127, 081802.	7.8	4
5	Sensor-Assisted Fault Mitigation in Quantum Computation. Physical Review Applied, 2021, 16, .	3.8	6
6	Light Dark Matter Search with a High-Resolution Athermal Phonon Detector Operated above Ground. Physical Review Letters, 2021, 127, 061801.	7.8	53
7	Constraints on dark photons and axionlike particles from the SuperCDMS Soudan experiment. Physical Review D, 2020, 101, .	4.7	40
8	Impact of ionizing radiation on superconducting qubit coherence. Nature, 2020, 584, 551-556.	27.8	118
9	Constraints on low-mass, relic dark matter candidates from a surface-operated SuperCDMS single-charge sensitive detector. Physical Review D, 2020, 102, .	4.7	83
10	Dark matter search results from the complete exposure of the PICO-60 <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub><mml:mrow><mml:msub><mml:mi mathvariant="normal">F</mml:mi></mml:mrow><mml:mrow><mml:mn>8</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:mi	4.7	152
11	Data-driven modeling of electron recoil in PICO <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">F</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math> bubble chambers. Physical Review D, 2019, 100, .	4.7	8
12	Search for low-mass dark matter with CDMSlite using a profile likelihood fit. Physical Review D, 2019, 99, .	4.7	72
13	Production rate measurement of Tritium and other cosmogenic isotopes in Germanium with CDMSlite. Astroparticle Physics, 2019, 104, 1-12.	4.3	17
14	Results from the Super Cryogenic Dark Matter Search Experiment at Soudan. Physical Review Letters, 2018, 120, 061802.	7.8	92
15	Low-mass dark matter search with CDMSlite. Physical Review D, 2018, 97, .	4.7	142
16	Radon daughter plate-out measurements at SNOLAB for polyethylene and copper. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 880, 92-97.	1.6	9
17	Constraints on Sub-GeV Dark-Matterâ€“Electron Scattering from the DarkSide-50 Experiment. Physical Review Letters, 2018, 121, 111303.	7.8	179
18	Energy loss due to defect formation from 206Pb recoils in SuperCDMS germanium detectors. Applied Physics Letters, 2018, 113, .	3.3	4

#	Article	IF	Citations
19	DarkSide-20k: A 20 tonne two-phase LAr TPC for direct dark matter detection at LNGS. European Physical Journal Plus, 2018, 133, 1.	2.6	247
20	Low-Mass Dark Matter Search with the DarkSide-50 Experiment. Physical Review Letters, 2018, 121, 081307.	7.8	259
21	First Dark Matter Constraints from a SuperCDMS Single-Charge Sensitive Detector. Physical Review Letters, 2018, 121, 051301.	7.8	183
22	Electroluminescence pulse shape and electron diffusion in liquid argon measured in a dual-phase TPC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 904, 23-34.	1.6	13
23	The DarkSide Experiment: Present Status and Future. Journal of Physics: Conference Series, 2017, 798, 012109.	0.4	7
24	Effect of low electric fields on alpha scintillation light yield in liquid argon. Journal of Instrumentation, 2017, 12, P01021-P01021.	1.2	5
25	Simulation of argon response and light detection in the DarkSide-50 dual phase TPC. Journal of Instrumentation, 2017, 12, P10015-P10015.	1.2	31
26	Projected sensitivity of the SuperCDMS SNOLAB experiment. Physical Review D, 2017, 95, .	4.7	191
27	The DarkSide direct dark matter search with liquid argon. AIP Conference Proceedings, 2017, , .	0.4	0
28	The electronics, trigger and data acquisition system for the liquid argon time projection chamber of the DarkSide-50 search for dark matter. Journal of Instrumentation, 2017, 12, P12011-P12011.	1.2	10
29	CALISâ€"A CALibration Insertion System for the DarkSide-50 dark matter search experiment. Journal of Instrumentation, 2017, 12, T12004-T12004.	1.2	10
30	Cryogenic Characterization of FBK RGB-HD SiPMs. Journal of Instrumentation, 2017, 12, P09030-P09030.	1.2	16
31	New Results from the Search for Low-Mass Weakly Interacting Massive Particles with the CDMS Low Ionization Threshold Experiment. Physical Review Letters, 2016, 116, 071301.	7.8	275
32	Dark matter effective field theory scattering in direct detection experiments. Physical Review D, 2015, 91, .	4.7	40
33	Improved WIMP-search reach of the CDMS II germanium data. Physical Review D, 2015, 92, .	4.7	59
34	Prototyping an active neutron veto for SuperCDMS. AIP Conference Proceedings, 2015, , .	0.4	2
35	Geo-neutrinos from 1353 Days with the Borexino Detector. Physics Procedia, 2015, 61, 340-344.	1.2	1
36	DarkSide-50: A WIMP Search with a Two-phase Argon TPC. Physics Procedia, 2015, 61, 124-129.	1.2	10

#	Article	IF	Citations
37	Direct Search for Dark Matter with DarkSide. Journal of Physics: Conference Series, 2015, 650, 012006.	0.4	9
38	First results from the DarkSide-50 dark matter experiment at Laboratori Nazionali del Gran Sasso. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 743, 456-466.	4.1	186
39	First Direct Limits on Lightly Ionizing Particles with Electric Charge Less than e/6. Physical Review Letters, 2015, 114, 111302.	7.8	20
40	Maximum likelihood analysis of low energy CDMS II germanium data. Physical Review D, 2015, 91, .	4.7	10
41	A study of the trace 39Ar content in argon from deep underground sources. Astroparticle Physics, 2015, 66, 53-60.	4.3	22
42	A method for measuring coherent elastic neutrino-nucleus scattering at a far off-axis high-energy neutrino beam target. Physical Review D, 2014, 89, .	4.7	34
43	Final results of Borexino Phase-I on low-energy solar neutrino spectroscopy. Physical Review D, 2014, 89, .	4.7	204
44	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
45	Lifetimes of 214Po and 212Po measured with Counting Test Facility at Gran Sasso National Laboratory. Journal of Environmental Radioactivity, 2014, 138, 444-446.	1.7	1
46	Search for Low-Mass Weakly Interacting Massive Particles with SuperCDMS. Physical Review Letters, 2014, 112, 241302.	7.8	440
47	Liquid Argon Time Projection Chamber research and development in the United States. Journal of Instrumentation, 2014, 9, T05005-T05005.	1.2	13
48	Low energy neutrinos. International Journal of Modern Physics Conference Series, 2014, 31, 1460285.	0.7	0
49	Lifetime measurements of 214Po and 212Po with the CTF liquid scintillator detector at LNGS. European Physical Journal A, 2013, 49, 1.	2.5	17
50	New limits on heavy sterile neutrino mixing in<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>decay obtained with the Borexino detector. Physical Review D, 2013, 88, .	4.7	29
51	Neutrinos from the sun and from radioactive sources. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 77-81.	0.4	0
52	Light yield in DarkSide-10: A prototype two-phase argon TPC for dark matter searches. Astroparticle Physics, 2013, 49, 44-51.	4.3	36
53	Solar neutrino results from Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 104-106.	0.4	1
54	Measurement of geo-neutrinos from 1353 days of Borexino. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 722, 295-300.	4.1	92

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55	Recent results and future development of Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 235-236, 55-60.	0.4	3
56	Cosmogenic Backgrounds in Borexino at 3800 m water-equivalent depth. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 049-049.	5.4	63
57	SuperCDMS status from Soudan and plans for SNOLab. , 2013, , .		8
58	DarkSide search for dark matter. Journal of Instrumentation, 2013, 8, C11021-C11021.	1.2	36
59	Observation of the dependence on drift field of scintillation from nuclear recoils in liquid argon. Physical Review D, 2013, 88, .	4.7	30
60	Demonstration of surface electron rejection with interleaved germanium detectors for dark matter searches. Applied Physics Letters, 2013, 103, .	3.3	51
61	Silicon Detector Dark Matter Results from the Final Exposure of CDMS II. Physical Review Letters, 2013, 111, 251301.	7.8	410
62	STUDY OF THE RARE PROCESSES WITH THE BOREXINO DETECTOR. , 2013, , 177-180.		0
63	Cosmic-muon flux and annual modulation in Borexino at 3800 m water-equivalent depth. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 015-015.	5.4	47
64	First Evidence of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mi>e</mml:mi><mml:mi>p</mml:mi></mml:math>Solar Neutrinos by Direct Detection in Borexino. Physical Review Letters, 2012, 108, 051302.	7.8	213
65	First evidence ofpepsolar neutrinos by direct detection in Borexino. Journal of Physics: Conference Series, 2012, 375, 042030.	0.4	1
66	Borexino calibrations: hardware, methods, and results. Journal of Instrumentation, 2012, 7, P10018-P10018.	1.2	60
67	High precision 7Be solar neutrinos measurement and day night effect obtained with Borexino. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 692, 258-261.	1.6	0
68	Search for solar axions produced in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>d</mml:mi><mml:mo>,</mml:mo><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescript	4.7	54
69	Borexino detector. Physical Review D, 2012, 85, . Depleted Argon from Underground Sources. Physics Procedia, 2012, 37, 1105-1112.	1.2	5
70	Measurement of CNGS muon neutrino speed with Borexino. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 716, 401-405.	4.1	33
71	Reducing potassium contamination for AMS detection of 39Ar with an electron-cyclotron-resonance ion source. Nuclear Instruments & Methods in Physics Research B, 2012, 283, 77-83.	1.4	10
72	Absence of a dayâ€“night asymmetry in the 7Be solar neutrino rate in Borexino. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 707, 22-26.	4.1	83

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73	Precision Measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math>Solar Neutrino Interaction Rate in Borexino. Physical Review Letters, 2011, 107, 141302.	7.8	441
74	A Highly Efficient Neutron Veto Using Boron-Loaded Liquid Scintillator. , 2011, , .		0
75	The WArP Experiment. Journal of Physics: Conference Series, 2011, 308, 012005.	0.4	9
76	Muon and cosmogenic neutron detection in Borexino. Journal of Instrumentation, 2011, 6, P05005-P05005.	1.2	68
77	Production and suppression of [sup 11]C in the solar neutrino experiment Borexino. , 2011, , .		0
78	Depleted Argon from Underground Sources. , 2011, , .		3
79	Neutrino interactions at few MeV: results from Borexino at Gran Sasso. Nuclear Physics, Section B, Proceedings Supplements, 2011, 212-213, 121-127.	0.4	0
80	Solar neutrino results from Borexino and main future perspectives. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 630, 210-213.	1.6	2
81	A highly efficient neutron veto for dark matter experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 644, 18-26.	1.6	28
82	Borexino: recent results, detector calibration and future perspectives. Nuclear Physics, Section B, Proceedings Supplements, 2011, 217, 101-106.	0.4	2
83	Study of solar and other unknown anti-neutrino fluxes with Borexino at LNGS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 696, 191-196.	4.1	60
84	The WArP experiment. Journal of Physics: Conference Series, 2010, 203, 012006.	0.4	20
85	Observation of geo-neutrinos. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 687, 299-304.	4.1	187
86	New experimental limits on the Pauli-forbidden transitions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">C</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>12</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>nuclei obtained with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>485</mml:mn></mml:mrow></mml:math>days Borexino data. Ph	2.9	56
87	Measurement of the solar<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>neutrino rate with a liquid scintillator target and 3ÂMeV energy threshold in the Borexino detector. Physical Review D, 2010, 82, .	4.7	214
88	Measurement of the solar 8B neutrino flux down to 2.8 MeV with Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 127-129.	0.4	2
89	The Borexino detector at the Laboratori Nazionali del Gran Sasso. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 568-593.	1.6	292
90	The liquid handling systems for the Borexino solar neutrino detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 609, 58-78.	1.6	71

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91	200 days of Borexino data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 90-95.	0.4	0
92	Discovery of underground argon with low level of radioactive 39Ar and possible applications to WIMP dark matter detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 587, 46-51.	1.6	44
93	Direct Measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Be</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math>Solar Neutrino Flux with 192 Days of Borexino Data. Physical Review Letters, 2008, 101, 091302.	7.8	344
94	Discovery of underground argon with a low level of radioactive³⁹Ar and possible applications to WIMP dark matter detectors. Journal of Physics: Conference Series, 2008, 120, 042015.	0.4	9