

Valentina Muratova

List of Publications by Year in descending order

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132
papers

5,879
citations

101543

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71685

76
g-index

133
all docs

133
docs citations

133
times ranked

4706
citing authors

#	ARTICLE	IF	CITATIONS
1	Precision Measurement of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Be} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ Solar Neutrino Interaction Rate in Borexino. <i>Physical Review Letters</i> , 2011, 107, 141302.	7.8	441
2	Direct Measurement of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Be} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 7 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ Solar Neutrino Flux with 192 Days of Borexino Data. <i>Physical Review Letters</i> , 2008, 101, 091302.	7.8	344
3	The Borexino detector at the Laboratori Nazionali del Gran Sasso. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 600, 568-593.	1.6	292
4	Low-Mass Dark Matter Search with the DarkSide-50 Experiment. <i>Physical Review Letters</i> , 2018, 121, 081307.	7.8	259
5	Neutrinos from the primary proton \rightarrow proton fusion process in the Sun. <i>Nature</i> , 2014, 512, 383-386.	27.8	250
6	DarkSide-20k: A 20 tonne two-phase LAr TPC for direct dark matter detection at LNGS. <i>European Physical Journal Plus</i> , 2018, 133, 1.	2.6	247
7	Measurement of the solar $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \text{ mathvariant="normal"} \rangle \text{B} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 8 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ neutrino rate with a liquid scintillator target and 3 MeV energy threshold in the Borexino detector. <i>Physical Review D</i> , 2010, 82, .	4.7	214
8	First Evidence of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{e} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ Solar Neutrinos by Direct Detection in Borexino. <i>Physical Review Letters</i> , 2012, 108, 051302.	7.8	213
9	Final results of Borexino Phase-I on low-energy solar neutrino spectroscopy. <i>Physical Review D</i> , 2014, 89, .	4.7	204
10	Conceptual design of the International Axion Observatory (IAXO). <i>Journal of Instrumentation</i> , 2014, 9, T05002-T05002.	1.2	201
11	Observation of geo-neutrinos. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2010, 687, 299-304.	4.1	187
12	First results from the DarkSide-50 dark matter experiment at Laboratori Nazionali del Gran Sasso. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 743, 456-466.	4.1	186
13	The next-generation liquid-scintillator neutrino observatory LENA. <i>Astroparticle Physics</i> , 2012, 35, 685-732.	4.3	181
14	Constraints on Sub-GeV Dark-Matter \rightarrow Electron Scattering from the DarkSide-50 Experiment. <i>Physical Review Letters</i> , 2018, 121, 111303.	7.8	179
15	Comprehensive measurement of pp-chain solar neutrinos. <i>Nature</i> , 2018, 562, 505-510.	27.8	169
16	DarkSide-50 532-day dark matter search with low-radioactivity argon. <i>Physical Review D</i> , 2018, 98, .	4.7	147
17	Physics potential of the International Axion Observatory (IAXO). <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 047-047.	5.4	135
18	Results from the first use of low radioactivity argon in a dark matter search. <i>Physical Review D</i> , 2016, 93, .	4.7	108

#	ARTICLE	IF	CITATIONS
19	SOX: Short distance neutrino Oscillations with Borexino. Journal of High Energy Physics, 2013, 2013, 1.	4.7	98
20	Limiting neutrino magnetic moments with Borexino Phase-II solar neutrino data. Physical Review D, 2017, 96, .	4.7	94
21	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
22	Absence of a day-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
23	Simultaneous precision spectroscopy of ^7Be and ^8B solar neutrinos. Physical Review D, 2015, 92, .	4.7	80
24	Spectroscopy of geoneutrinos from 2056 days of Borexino data. Physical Review D, 2015, 92, .	4.7	77
25	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
26	Muon and cosmogenic neutron detection in Borexino. Journal of Instrumentation, 2011, 6, P05005-P05005.	1.2	68
27	Cosmogenic Backgrounds in Borexino at 3800 m water-equivalent depth. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 049-049.	5.4	63
28	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
29	Borexino calibrations: hardware, methods, and results. Journal of Instrumentation, 2012, 7, P10018-P10018.	1.2	60
30	New experimental limits on the Pauli-forbidden transitions in ^{12}C nuclei obtained with Borexino data. Physical Review D, 2012, 85, .	2.9	56
31	Measurement of the ^7Be solar neutrino flux with the Borexino detector. Physical Review D, 2012, 85, .	4.7	54
32	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
33	Test of Electric Charge Conservation with Borexino. Physical Review Letters, 2015, 115, 231802.	7.8	42
34	Comprehensive geoneutrino analysis with Borexino. Physical Review D, 2020, 101, .	4.7	42
35	Light yield in DarkSide-10: A prototype two-phase argon TPC for dark matter searches. Astroparticle Physics, 2013, 49, 44-51.	4.3	36
36	DarkSide search for dark matter. Journal of Instrumentation, 2013, 8, C11021-C11021.	1.2	36

#	ARTICLE	IF	CITATIONS
37	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
38	The veto system of the DarkSide-50 experiment. Journal of Instrumentation, 2016, 11, P03016-P03016.	1.2	33
39	Constraints on the axion-electron coupling constant for solar axions appearing owing to bremsstrahlung and the compton process. JETP Letters, 2012, 95, 339-344.	1.4	31
40	Simulation of argon response and light detection in the DarkSide-50 dual phase TPC. Journal of Instrumentation, 2017, 12, P10015-P10015.	1.2	31
41	Constraints on the axion-electron coupling for solar axions produced by a Compton process and bremsstrahlung. Physical Review D, 2011, 83, .	4.7	30
42	The Monte Carlo simulation of the Borexino detector. Astroparticle Physics, 2018, 97, 136-159.	4.3	30
43	New limits on heavy sterile neutrino mixing in $B \rightarrow 8\gamma$ decay obtained with the Borexino detector. Physical Review D, 2013, 88, .	4.7	29
44	Towards a medium-scale axion helioscope and haloscope. Journal of Instrumentation, 2017, 12, P11019-P11019.	1.2	29
45	New limit on the mass of 14.4-keV solar axions emitted in an M1 transition in 57Fe nuclei. Physics of Atomic Nuclei, 2011, 74, 596-602.	0.4	27
46	A Search for Low-energy Neutrinos Correlated with Gravitational Wave Events GW 150914, GW 151226, and GW 170104 with the Borexino Detector. Astrophysical Journal, 2017, 850, 21.	4.5	26
47	Improved measurement of $B \rightarrow 8\gamma$ solar neutrinos with $B \rightarrow 8\gamma$	4.7	24
48	Search for solar axions produced by Primakoff conversion using resonant absorption by 169Tm nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 181-185.	4.1	23
49	Seasonal modulation of the 7 Be solar neutrino rate in Borexino. Astroparticle Physics, 2017, 92, 21-29.	4.3	22
50	Modulations of the cosmic muon signal in ten years of Borexino data. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 046-046.	5.4	22
51	Search for resonant absorption of solar axions emitted in M1 transition in 57Fe nuclei. European Physical Journal C, 2009, 62, 755-760.	3.9	21
52	The DarkSide Multiton Detector for the Direct Dark Matter Search. Advances in High Energy Physics, 2015, 2015, 1-8.	1.1	21
53	Design and construction of a new detector to measure ultra-low radioactive-isotope contamination of argon. Journal of Instrumentation, 2020, 15, P02024-P02024.	1.2	19
54	Lifetime measurements of 214Po and 212Po with the CTF liquid scintillator detector at LNGS. European Physical Journal A, 2013, 49, 1.	2.5	17

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55	Cryogenic Characterization of FBK RGB-HD SiPMs. <i>Journal of Instrumentation</i> , 2017, 12, P09030-P09030.	1.2	16
56	New experiment on search for the resonance absorption of solar axion emitted in the M1 transition of ^{83}Kr nuclei. <i>JETP Letters</i> , 2015, 101, 664-669.	1.4	15
57	Search for axioelectric effect of 5.5 MeV solar axions using BGO detectors. <i>European Physical Journal C</i> , 2013, 73, 1.	3.9	14
58	Beta-spectrometer with Si-detectors for the study of ^{144}Ce \rightarrow ^{144}Pr decays. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 890, 64-67.	1.6	14
59	Borexino's search for low-energy neutrino and antineutrino signals correlated with gamma-ray bursts. <i>Astroparticle Physics</i> , 2017, 86, 11-17.	4.3	13
60	Electroluminescence pulse shape and electron diffusion in liquid argon measured in a dual-phase TPC. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 904, 23-34.	1.6	13
61	Constraints on flavor-diagonal non-standard neutrino interactions from Borexino Phase-II. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	13
62	The Next Generation of Axion Helioscopes: The International Axion Observatory (IAXO). <i>Physics Procedia</i> , 2015, 61, 193-200.	1.2	11
63	The electronics, trigger and data acquisition system for the liquid argon time projection chamber of the DarkSide-50 search for dark matter. <i>Journal of Instrumentation</i> , 2017, 12, P12011-P12011.	1.2	10
64	CALIS – A CALibration Insertion System for the DarkSide-50 dark matter search experiment. <i>Journal of Instrumentation</i> , 2017, 12, T12004-T12004.	1.2	10
65	Direct Search for Dark Matter with DarkSide. <i>Journal of Physics: Conference Series</i> , 2015, 650, 012006.	0.4	9
66	Search for axioelectric effect of solar axions using BGO scintillating bolometer. <i>European Physical Journal C</i> , 2014, 74, 1.	3.9	8
67	Search for a Neutrino with a Mass of $0.01 \leq m_\nu \leq 1.0$ MeV in Beta Decays of ^{144}Ce \rightarrow ^{144}Pr Nuclei. <i>JETP Letters</i> , 2018, 108, 499-503.	1.4	8
68	New Constraints on the Axion-Photon Coupling Constant for Solar Axions. <i>JETP Letters</i> , 2018, 107, 589-594.	1.4	8
69	A Beta Spectrometer Based on Silicon Detectors. <i>Instruments and Experimental Techniques</i> , 2018, 61, 323-327.	0.5	8
70	Measurement of neutrino flux from the primary proton-proton fusion process in the Sun with Borexino detector. <i>Physics of Particles and Nuclei</i> , 2016, 47, 995-1002.	0.7	7
71	The electronics and data acquisition system for the DarkSide-50 veto detectors. <i>Journal of Instrumentation</i> , 2016, 11, P12007-P12007.	1.2	7
72	The DarkSide Experiment: Present Status and Future. <i>Journal of Physics: Conference Series</i> , 2017, 798, 012109.	0.4	7

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73	Search for resonant absorption of solar axions emitted in M1-transitions in ^{83}Kr nuclei: Second stage of the experiment. <i>Physics of Particles and Nuclei</i> , 2018, 49, 94-96.	0.7	6
74	New limits on the resonant absorption of solar axions obtained with a ^{169}Tm -containing cryogenic detector. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	6
75	Effective field theory interactions for liquid argon target in DarkSide-50 experiment. <i>Physical Review D</i> , 2020, 101, .	4.7	6
76	Effect of low electric fields on alpha scintillation light yield in liquid argon. <i>Journal of Instrumentation</i> , 2017, 12, P01021-P01021.	1.2	5
77	First result of the experimental search for the 9.4 keV solar axion reactions with ^{83}Kr in the copper proportional counter. <i>Physics of Particles and Nuclei</i> , 2015, 46, 152-156.	0.7	4
78	Solar neutrino with Borexino: Results and perspectives. <i>Physics of Particles and Nuclei</i> , 2015, 46, 166-173.	0.7	4
79	An update on the Axion Helioscopes front: current activities at CAST and the IAXO project. <i>Nuclear and Particle Physics Proceedings</i> , 2016, 273-275, 244-249.	0.5	4
80	A test of bolometric properties of Tm-containing crystals as a perspective detector for a solar axion search. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 949, 162924.	1.6	4
81	A Change in the Parameters of Si(Li) Detectors under Exposure to $\hat{\pm}$ Particles. <i>Instruments and Experimental Techniques</i> , 2020, 63, 25-29.	0.5	4
82	Recent results and future development of Borexino. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2013, 235-236, 55-60.	0.4	3
83	Short Distance Neutrino Oscillations with Borexino: SOX. <i>Physics Procedia</i> , 2015, 61, 511-517.	1.2	3
84	SOX: search for short baseline neutrino oscillations with Borexino. <i>Journal of Physics: Conference Series</i> , 2016, 718, 062066.	0.4	3
85	Geo-neutrino results with Borexino. <i>Journal of Physics: Conference Series</i> , 2016, 675, 012029.	0.4	3
86	The DarkSide project. <i>Journal of Instrumentation</i> , 2016, 11, C02051-C02051.	1.2	3
87	Measurement of Solar pp-neutrino flux with Borexino: results and implications. <i>Journal of Physics: Conference Series</i> , 2016, 675, 012027.	0.4	3
88	A measurement method of a detector response function for monochromatic electrons based on the Compton scattering. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 821, 13-16.	1.6	3
89	Solar neutrino results from Borexino and main future perspectives. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 630, 210-213.	1.6	2
90	The IAXO Helioscope. <i>Journal of Physics: Conference Series</i> , 2015, 650, 012009.	0.4	2

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91	Low-energy (anti)neutrino physics with Borexino: Neutrinos from the primary proton-proton fusion process in the Sun. Nuclear and Particle Physics Proceedings, 2015, 265-266, 87-92.	0.5	2
92	Recent Borexino results and prospects for the near future. EPJ Web of Conferences, 2016, 126, 02008.	0.3	2
93	CNO and pepsolar neutrino measurements and perspectives in Borexino. Journal of Physics: Conference Series, 2016, 675, 012040.	0.4	2
94	The search for sterile neutrinos with SOX-Borexino. Physics of Atomic Nuclei, 2016, 79, 1481-1484.	0.4	2
95	SOX: Short Distance Neutrino Oscillations with Borexino. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1760-1764.	0.5	2
96	The ^{144}Ce source for SOX. Journal of Physics: Conference Series, 2016, 675, 012032.	0.4	2
97	Recent Results of Search for Solar Axions Using Resonant Absorption by ^{83}Kr nuclei. Journal of Physics: Conference Series, 2017, 934, 012018.	0.4	2
98	Solar Neutrinos Spectroscopy with Borexino Phase-II. Universe, 2018, 4, 118.	2.5	2
99	^{4}He semiconductor beta-spectrometer for measurement of ^{144}Ce α spectra. Journal of Physics: Conference Series, 2019, 1390, 012117.	0.4	2
100	Measurement of the ion fraction and mobility of ^{218}Po produced in ^{222}Rn decays in liquid argon. Journal of Instrumentation, 2019, 14, P11018-P11018.	1.2	2
101	Borexino: geo-neutrino measurement at Gran Sasso, Italy. Annals of Geophysics, 2017, 60, .	1.0	2
102	First evidence of ^{7}Be solar neutrinos by direct detection in Borexino. Journal of Physics: Conference Series, 2012, 375, 042030.	0.4	1
103	Solar neutrino results from Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 104-106.	0.4	1
104	Lifetimes of ^{214}Po and ^{212}Po measured with Counting Test Facility at Gran Sasso National Laboratory. Journal of Environmental Radioactivity, 2014, 138, 444-446.	1.7	1
105	Neutrino measurements from the Sun and Earth: Results from Borexino. AIP Conference Proceedings, 2015, , .	0.4	1
106	Geo-neutrinos from 1353 Days with the Borexino Detector. Physics Procedia, 2015, 61, 340-344.	1.2	1
107	Geo-neutrinos and Borexino. Physics of Particles and Nuclei, 2015, 46, 174-181.	0.7	1
108	Overview and accomplishments of the Borexino experiment. Journal of Physics: Conference Series, 2016, 675, 012036.	0.4	1

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109	High significance measurement of the terrestrial neutrino flux with the Borexino detector. Journal of Physics: Conference Series, 2016, 718, 062025.	0.4	1
110	Borexino: Recent results and future plans. Physics of Particles and Nuclei, 2017, 48, 1026-1029.	0.7	1
111	CeSOX: An experimental test of the sterile neutrino hypothesis with Borexino. Journal of Physics: Conference Series, 2017, 934, 012003.	0.4	1
112	Test of the electron stability with the Borexino detector. Journal of Physics: Conference Series, 2017, 888, 012193.	0.4	1
113	Results of Searching for Solar Hadronic Axions Emitted in the M1 Transition in ^{83}Kr Nuclei. Physics of Particles and Nuclei, 2018, 49, 599-601.	0.7	1
114	Solar Neutrino Results and Future Opportunities with Borexino. Journal of Physics: Conference Series, 2019, 1137, 012054.	0.4	1
115	200 days of Borexino data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 90-95.	0.4	0
116	Production and suppression of ^{11}C in the solar neutrino experiment Borexino. , 2011, , .		0
117	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
118	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
119	Neutrinos from the sun and from radioactive sources. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 77-81.	0.4	0
120	Recent results from Borexino. Journal of Physics: Conference Series, 2016, 718, 062059.	0.4	0
121	Short distance neutrino oscillations with Borexino. EPJ Web of Conferences, 2016, 121, 01002.	0.3	0
122	The DarkSide-50 outer detectors. Journal of Physics: Conference Series, 2016, 718, 042062.	0.4	0
123	Test of the electric charge conservation law with Borexino detector. Journal of Physics: Conference Series, 2016, 675, 012025.	0.4	0
124	The high precision measurement of the ^{144}Ce activity in the SOX experiment. Journal of Physics: Conference Series, 2016, 675, 012035.	0.4	0
125	First real-time detection of solar pp neutrinos by Borexino. EPJ Web of Conferences, 2016, 121, 01001.	0.3	0
126	A method for measuring the detector response function for monochromatic electrons based on Compton scattering. Instruments and Experimental Techniques, 2016, 59, 333-336.	0.5	0

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127	Recent results from Borexino and the first real time measure of solar pp neutrinos. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1753-1759.	0.5	0
128	Understanding the detector behavior through Montecarlo and calibration studies in view of the SOX measurement. Journal of Physics: Conference Series, 2016, 675, 012012.	0.4	0
129	Recent Results from Borexino. Journal of Physics: Conference Series, 2017, 798, 012114.	0.4	0
130	The DarkSide direct dark matter search with liquid argon. AIP Conference Proceedings, 2017, , .	0.4	0
131	A Silicon Detector Based Beta-spectrometer. Journal of Physics: Conference Series, 2017, 934, 012056.	0.4	0
132	Improvements in the simulation code of the SOX experiment. Journal of Physics: Conference Series, 2017, 888, 012145.	0.4	0