

# Valentina Muratova

## List of Publications by Year in descending order

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times ranked

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#	ARTICLE	IF	CITATIONS
1	A test of bolometric properties of Tm-containing crystals as a perspective detector for a solar axion search. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 949, 162924.	1.6	4
2	New limits on the resonant absorption of solar axions obtained with a $^{169}\text{Tm}$ -containing cryogenic detector. European Physical Journal C, 2020, 80, 1.	3.9	6
3	Effective field theory interactions for liquid argon target in DarkSide-50 experiment. Physical Review D, 2020, 101, .	4.7	6
4	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
5	Improved measurement of $B$ solar neutrinos with $^{15}\text{Li}$	4.7	24
6	Comprehensive geoneutrino analysis with Borexino. Physical Review D, 2020, 101, .	4.7	42
7	A Change in the Parameters of Si(Li) Detectors under Exposure to $\hat{\pm}$ Particles. Instruments and Experimental Techniques, 2020, 63, 25-29.	0.5	4
8	Constraints on flavor-diagonal non-standard neutrino interactions from Borexino Phase-II. Journal of High Energy Physics, 2020, 2020, 1.	4.7	13
9	Solar Neutrino Results and Future Opportunities with Borexino. Journal of Physics: Conference Series, 2019, 1137, 012054.	0.4	1
10	Simultaneous precision spectroscopy of $^{10}\text{Be}$	4.7	80
11	Physics potential of the International Axion Observatory (IAXO). Journal of Cosmology and Astroparticle Physics, 2019, 2019, 047-047.	5.4	135
12	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
13	$^{14}\text{Ce}$ semiconductor beta-spectrometer for measurement of $^{144}\text{Ce}$ $^{144}\text{Pr}$ spectra. Journal of Physics: Conference Series, 2019, 1390, 012117.	0.4	2
14	Measurement of the ion fraction and mobility of $^{218}\text{Po}$ produced in $^{222}\text{Rn}$ decays in liquid argon. Journal of Instrumentation, 2019, 14, P11018-P11018.	1.2	2
15	Beta-spectrometer with Si-detectors for the study of $^{144}\text{Ce}$ $^{144}\text{Pr}$ decays. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 890, 64-67.	1.6	14
16	Search for resonant absorption of solar axions emitted in M1-transitions in $^{83}\text{Kr}$ nuclei: Second stage of the experiment. Physics of Particles and Nuclei, 2018, 49, 94-96.	0.7	6
17	The Monte Carlo simulation of the Borexino detector. Astroparticle Physics, 2018, 97, 136-159.	4.3	30
18	Solar Neutrinos Spectroscopy with Borexino Phase-II. Universe, 2018, 4, 118.	2.5	2

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19	DarkSide-50 532-day dark matter search with low-radioactivity argon. <i>Physical Review D</i> , 2018, 98, .	4.7	147
20	Search for a Neutrino with a Mass of 0.01â€“1.0 MeV in Beta Decays of $^{144}\text{Ce}$ â€“ $^{144}\text{Pr}$ Nuclei. <i>JETP Letters</i> , 2018, 108, 499-503.	1.4	8
21	Comprehensive measurement of pp-chain solar neutrinos. <i>Nature</i> , 2018, 562, 505-510.	27.8	169
22	Constraints on Sub-GeV Dark-Matterâ€“Electron Scattering from the DarkSide-50 Experiment. <i>Physical Review Letters</i> , 2018, 121, 111303.	7.8	179
23	New Constraints on the Axionâ€“Photon Coupling Constant for Solar Axions. <i>JETP Letters</i> , 2018, 107, 589-594.	1.4	8
24	A Beta Spectrometer Based on Silicon Detectors. <i>Instruments and Experimental Techniques</i> , 2018, 61, 323-327.	0.5	8
25	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
26	Low-Mass Dark Matter Search with the DarkSide-50 Experiment. <i>Physical Review Letters</i> , 2018, 121, 081307.	7.8	259
27	Results of Searching for Solar Hadronic Axions Emitted in the M1 Transition in $^{83}\text{Kr}$ Nuclei. <i>Physics of Particles and Nuclei</i> , 2018, 49, 599-601.	0.7	1
28	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
29	Seasonal modulation of the $^7\text{Be}$ solar neutrino rate in Borexino. <i>Astroparticle Physics</i> , 2017, 92, 21-29.	4.3	22
30	The DarkSide Experiment: Present Status and Future. <i>Journal of Physics: Conference Series</i> , 2017, 798, 012109.	0.4	7
31	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
32	Simulation of argon response and light detection in the DarkSide-50 dual phase TPC. <i>Journal of Instrumentation</i> , 2017, 12, P10015-P10015.	1.2	31
33	Limiting neutrino magnetic moments with Borexino Phase-II solar neutrino data. <i>Physical Review D</i> , 2017, 96, .	4.7	94
34	A Search for Low-energy Neutrinos Correlated with Gravitational Wave Events GW 150914, GW 151226, and GW 170104 with the Borexino Detector. <i>Astrophysical Journal</i> , 2017, 850, 21.	4.5	26
35	Borexino: Recent results and future plans. <i>Physics of Particles and Nuclei</i> , 2017, 48, 1026-1029.	0.7	1
36	Towards a medium-scale axion helioscope and haloscope. <i>Journal of Instrumentation</i> , 2017, 12, P11019-P11019.	1.2	29

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37	Recent Results from Borexino. Journal of Physics: Conference Series, 2017, 798, 012114.	0.4	0
38	Borexino's search for low-energy neutrino and antineutrino signals correlated with gamma-ray bursts. Astroparticle Physics, 2017, 86, 11-17.	4.3	13
39	CeSOX: An experimental test of the sterile neutrino hypothesis with Borexino. Journal of Physics: Conference Series, 2017, 934, 012003.	0.4	1
40	The DarkSide direct dark matter search with liquid argon. AIP Conference Proceedings, 2017, , .	0.4	0
41	Recent Results of Search for Solar Axions Using Resonant Absorption by $^{83}\text{Kr}$ nuclei. Journal of Physics: Conference Series, 2017, 934, 012018.	0.4	2
42	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
43	CALIS – A CALibration Insertion System for the DarkSide-50 dark matter search experiment. Journal of Instrumentation, 2017, 12, T12004-T12004.	1.2	10
44	Test of the electron stability with the Borexino detector. Journal of Physics: Conference Series, 2017, 888, 012193.	0.4	1
45	Cryogenic Characterization of FBK RGB-HD SiPMs. Journal of Instrumentation, 2017, 12, P09030-P09030.	1.2	16
46	A Silicon Detector Based Beta-spectrometer. Journal of Physics: Conference Series, 2017, 934, 012056.	0.4	0
47	Improvements in the simulation code of the SOX experiment. Journal of Physics: Conference Series, 2017, 888, 012145.	0.4	0
48	Borexino: geo-neutrino measurement at Gran Sasso, Italy. Annals of Geophysics, 2017, 60, .	1.0	2
49	Recent results from Borexino. Journal of Physics: Conference Series, 2016, 718, 062059.	0.4	0
50	Short distance neutrino oscillations with Borexino. EPJ Web of Conferences, 2016, 121, 01002.	0.3	0
51	Recent Borexino results and prospects for the near future. EPJ Web of Conferences, 2016, 126, 02008.	0.3	2
52	SOX: search for short baseline neutrino oscillations with Borexino. Journal of Physics: Conference Series, 2016, 718, 062066.	0.4	3
53	Geo-neutrino results with Borexino. Journal of Physics: Conference Series, 2016, 675, 012029.	0.4	3
54	CNO and pepsolar neutrino measurements and perspectives in Borexino. Journal of Physics: Conference Series, 2016, 675, 012040.	0.4	2

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55	Overview and accomplishments of the Borexino experiment. Journal of Physics: Conference Series, 2016, 675, 012036.	0.4	1
56	Measurement of neutrino flux from the primary protonâ€“proton fusion process in the Sun with Borexino detector. Physics of Particles and Nuclei, 2016, 47, 995-1002.	0.7	7
57	The DarkSide-50 outer detectors. Journal of Physics: Conference Series, 2016, 718, 042062.	0.4	0
58	The search for sterile neutrinos with SOX-Borexino. Physics of Atomic Nuclei, 2016, 79, 1481-1484.	0.4	2
59	The electronics and data acquisition system for the DarkSide-50 veto detectors. Journal of Instrumentation, 2016, 11, P12007-P12007.	1.2	7
60	The veto system of the DarkSide-50 experiment. Journal of Instrumentation, 2016, 11, P03016-P03016.	1.2	33
61	The DarkSide project. Journal of Instrumentation, 2016, 11, C02051-C02051.	1.2	3
62	An update on the Axion Helioscopes front: current activities at CAST and the IAXO project. Nuclear and Particle Physics Proceedings, 2016, 273-275, 244-249.	0.5	4
63	SOX: Short Distance Neutrino Oscillations with Borexino. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1760-1764.	0.5	2
64	Results from the first use of low radioactivity argon in a dark matter search. Physical Review D, 2016, 93, .	4.7	108
65	Test of the electric charge conservation law with Borexino detector. Journal of Physics: Conference Series, 2016, 675, 012025.	0.4	0
66	Measurement of Solar pp-neutrino flux with Borexino: results and implications. Journal of Physics: Conference Series, 2016, 675, 012027.	0.4	3
67	The high precision measurement of the <sup>144</sup> Ce activity in the SOX experiment. Journal of Physics: Conference Series, 2016, 675, 012035.	0.4	0
68	First realâ€“time detection of solar pp neutrinos by Borexino. EPJ Web of Conferences, 2016, 121, 01001.	0.3	0
69	High significance measurement of the terrestrial neutrino flux with the Borexino detector. Journal of Physics: Conference Series, 2016, 718, 062025.	0.4	1
70	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
71	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
72	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

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73	The $^{144}\text{Ce}$ source for SOX. <i>Journal of Physics: Conference Series</i> , 2016, 675, 012032.	0.4	2
74	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
75	Test of Electric Charge Conservation with Borexino. <i>Physical Review Letters</i> , 2015, 115, 231802.	7.8	42
76	Neutrino measurements from the Sun and Earth: Results from Borexino. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	1
77	Geo-neutrinos from 1353 Days with the Borexino Detector. <i>Physics Procedia</i> , 2015, 61, 340-344.	1.2	1
78	The Next Generation of Axion Helioscopes: The International Axion Observatory (IAXO). <i>Physics Procedia</i> , 2015, 61, 193-200.	1.2	11
79	The IAXO Helioscope. <i>Journal of Physics: Conference Series</i> , 2015, 650, 012009.	0.4	2
80	The DarkSide Multiton Detector for the Direct Dark Matter Search. <i>Advances in High Energy Physics</i> , 2015, 2015, 1-8.	1.1	21
81	Direct Search for Dark Matter with DarkSide. <i>Journal of Physics: Conference Series</i> , 2015, 650, 012006.	0.4	9
82	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
83	Short Distance Neutrino Oscillations with BoreXino: SOX. <i>Physics Procedia</i> , 2015, 61, 511-517.	1.2	3
84	First result of the experimental search for the 9.4 keV solar axion reactions with $^{83}\text{Kr}$ in the copper proportional counter. <i>Physics of Particles and Nuclei</i> , 2015, 46, 152-156.	0.7	4
85	Geo-neutrinos and Borexino. <i>Physics of Particles and Nuclei</i> , 2015, 46, 174-181.	0.7	1
86	Solar neutrino with Borexino: Results and perspectives. <i>Physics of Particles and Nuclei</i> , 2015, 46, 166-173.	0.7	4
87	New experiment on search for the resonance absorption of solar axion emitted in the M1 transition of $^{83}\text{Kr}$ nuclei. <i>JETP Letters</i> , 2015, 101, 664-669.	1.4	15
88	Spectroscopy of geoneutrinos from 2056 days of Borexino data. <i>Physical Review D</i> , 2015, 92, .	4.7	77
89	Low-energy (anti)neutrino physics with Borexino: Neutrinos from the primary proton-proton fusion process in the Sun. <i>Nuclear and Particle Physics Proceedings</i> , 2015, 265-266, 87-92.	0.5	2
90	Final results of Borexino Phase-I on low-energy solar neutrino spectroscopy. <i>Physical Review D</i> , 2014, 89, .	4.7	204

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91	Lifetimes of $^{214}\text{Po}$ and $^{212}\text{Po}$ measured with Counting Test Facility at Gran Sasso National Laboratory. Journal of Environmental Radioactivity, 2014, 138, 444-446.	1.7	1
92	Search for axioelectric effect of solar axions using BGO scintillating bolometer. European Physical Journal C, 2014, 74, 1.	3.9	8
93	Neutrinos from the primary proton $\rightarrow$ proton fusion process in the Sun. Nature, 2014, 512, 383-386.	27.8	250
94	Conceptual design of the International Axion Observatory (IAXO). Journal of Instrumentation, 2014, 9, T05002-T05002.	1.2	201
95	Lifetime measurements of $^{214}\text{Po}$ and $^{212}\text{Po}$ with the CTF liquid scintillator detector at LNGS. European Physical Journal A, 2013, 49, 1.	2.5	17
96	Search for axioelectric effect of 5.5 MeV solar axions using BGO detectors. European Physical Journal C, 2013, 73, 1.	3.9	14
97	SOX: Short distance neutrino Oscillations with BoreXino. Journal of High Energy Physics, 2013, 2013, 1.	4.7	98
98	New limits on heavy sterile neutrino mixing in $B$ decay obtained with the Borexino detector. Physical Review D, 2013, 88, .	4.7	29
99	Neutrinos from the sun and from radioactive sources. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 77-81.	0.4	0
100	Light yield in DarkSide-10: A prototype two-phase argon TPC for dark matter searches. Astroparticle Physics, 2013, 49, 44-51.	4.3	36
101	Solar neutrino results from Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 104-106.	0.4	1
102	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
103	Recent results and future development of Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 235-236, 55-60.	0.4	3
104	Cosmogenic Backgrounds in Borexino at 3800 m water-equivalent depth. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 049-049.	5.4	63
105	DarkSide search for dark matter. Journal of Instrumentation, 2013, 8, C11021-C11021.	1.2	36
106	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
107	First Evidence of $p \rightarrow e \nu$ Solar Neutrinos by Direct Detection in Borexino. Physical Review Letters, 2012, 108, 051302.	7.8	213
108	First evidence of $p \rightarrow e \nu$ solar neutrinos by direct detection in Borexino. Journal of Physics: Conference Series, 2012, 375, 042030.	0.4	1

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109	Borexino calibrations: hardware, methods, and results. Journal of Instrumentation, 2012, 7, P10018-P10018.	1.2	60
110	High precision $^7\text{Be}$ 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
111	$\frac{dN}{dt} = \Phi_{\text{He}} \times \text{cross-section} \times \text{Borexino detector}$ Borexino detector. Physical Review D, 2012, 85.	4.7	54
112	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
113	The next-generation liquid-scintillator neutrino observatory LENA. Astroparticle Physics, 2012, 35, 685-732.	4.3	181
114	Absence of a day-night asymmetry in the $^7\text{Be}$ solar neutrino rate in Borexino. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 707, 22-26.	4.1	83
115	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
116	Constraints on the axion-electron coupling for solar axions produced by a Compton process and bremsstrahlung. Physical Review D, 2011, 83, .	4.7	30
117	Precision Measurement of the $^7\text{Be}$ Solar Neutrino Interaction Rate in Borexino. Physical Review Letters, 2011, 107, 141302.	7.8	441
118	Muon and cosmogenic neutron detection in Borexino. Journal of Instrumentation, 2011, 6, P05005-P05005.	1.2	68
119	Production and suppression of $^{11}\text{C}$ in the solar neutrino experiment Borexino. , 2011, , .		0
120	New limit on the mass of 14.4-keV solar axions emitted in an M1 transition in $^{57}\text{Fe}$ nuclei. Physics of Atomic Nuclei, 2011, 74, 596-602.	0.4	27
121	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
122	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
123	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
124	Observation of geo-neutrinos. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 687, 299-304.	4.1	187
125	High-precision limits on the solar forbidden transitions in $^{12}\text{C}$ nuclei obtained with Borexino data.	2.9	56
126	Measurement of the solar $^8\text{B}$ neutrino rate with a liquid scintillator target and 3 MeV energy threshold in the Borexino detector. Physical Review D, 2010, 82, .	4.7	214



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127	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
128	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
129	200 days of Borexino data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 90-95.	0.4	0
130	Search for solar axions produced by Primakoff conversion using resonant absorption by $^{169}\text{Tm}$ nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 678, 181-185.	4.1	23
131	Search for resonant absorption of solar axions emitted in $^{57}\text{Fe}$ transition in $^{57}\text{Fe}$ nuclei. European Physical Journal C, 2009, 62, 755-760.	3.9	21
132	Direct Measurement of the $\langle \sigma v \rangle$ of $^{7}\text{Be}$ Solar Neutrino Flux with 192 Days of Borexino Data. Physical Review Letters, 2008, 101, 091302.	7.8	344