

Richard Saldanha

List of Publications by Year in descending order

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96
papers

4,605
citations

147801

31
h-index

95266

68
g-index

97
all docs

97
docs citations

97
times ranked

6426
citing authors

#	ARTICLE	IF	CITATIONS
1	First Dark Matter Search Results from the XENON1T Experiment. <i>Physical Review Letters</i> , 2017, 119, 181301.	7.8	757
2	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
3	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
4	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
5	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
6	Final results of Borexino Phase-I on low-energy solar neutrino spectroscopy. <i>Physical Review D</i> , 2014, 89, .	4.7	204
7	Observation of geo-neutrinos. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2010, 687, 299-304.	4.1	187
8	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
9	The XENON1T dark matter experiment. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	157
10	Sensitivity and discovery potential of the proposed nEXO experiment to neutrinoless double- $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ decay. <i>Physical Review C</i> , 2018, 97, .	2.9	115
11	Results from the first use of low radioactivity argon in a dark matter search. <i>Physical Review D</i> , 2016, 93, .	4.7	108
12	SOX: Short distance neutrino Oscillations with BoreXino. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	98
13	Measurement of geo-neutrinos from 1353 days of Borexino. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013, 722, 295-300.	4.1	92
14	Absence of a day-night asymmetry in the ^7Be solar neutrino rate in Borexino. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 707, 22-26.	4.1	83
15	Measurement of scintillation and ionization yield and scintillation pulse shape from nuclear recoils in liquid argon. <i>Physical Review D</i> , 2015, 91, .	4.7	80
16	The liquid handling systems for the Borexino solar neutrino detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 609, 58-78.	1.6	71
17	Muon and cosmogenic neutron detection in Borexino. <i>Journal of Instrumentation</i> , 2011, 6, P05005-P05005.	1.2	68
18	Cosmogenic Backgrounds in Borexino at 3800 m water-equivalent depth. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 049-049.	5.4	63

#	ARTICLE	IF	CITATIONS
19	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
20	Borexino calibrations: hardware, methods, and results. Journal of Instrumentation, 2012, 7, P10018-P10018.	1.2	60
21	New limits on the Pauli-forbidden transitions in C^{12} nuclei obtained with the Borexino detector. Physical Review D, 2013, 88, .	2.9	56
22	Search for solar axions produced in the He^{4} nuclei of the Borexino detector. Physical Review D, 2012, 85, .	4.7	54
23	nEXO: neutrinoless double beta decay search beyond 10^{28} year half-life sensitivity. Journal of Physics G: Nuclear and Particle Physics, 2022, 49, 015104.	3.6	51
24	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
25	Discovery of underground argon with low level of radioactive ^{39}Ar 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
26	Light yield in DarkSide-10: A prototype two-phase argon TPC for dark matter searches. Astroparticle Physics, 2013, 49, 44-51.	4.3	36
27	DarkSide search for dark matter. Journal of Instrumentation, 2013, 8, C11021-C11021.	1.2	36
28	Material radioassay and selection for the XENON1T dark matter experiment. European Physical Journal C, 2017, 77, 1.	3.9	36
29	Removing krypton from xenon by cryogenic distillation to the ppq level. European Physical Journal C, 2017, 77, 1.	3.9	35
30	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
31	The veto system of the DarkSide-50 experiment. Journal of Instrumentation, 2016, 11, P03016-P03016.	1.2	33
32	Observation of the dependence on drift field of scintillation from nuclear recoils in liquid argon. Physical Review D, 2013, 88, .	4.7	30
33	Hard X-Ray Spectral Evolution and Production of Solar Energetic Particle Events during the January 2005 Class Flares. Astrophysical Journal, 2008, 673, 1169-1173.	4.5	30
34	New limits on heavy sterile neutrino mixing in B^{8} decay obtained with the Borexino detector. Physical Review D, 2013, 88, .	4.7	29
35	Online ^{222}Rn removal by cryogenic distillation in the XENON100 experiment. European Physical Journal C, 2017, 77, 1.	3.9	29
36	VUV-Sensitive Silicon Photomultipliers for Xenon Scintillation Light Detection in nEXO. IEEE Transactions on Nuclear Science, 2018, 65, 2823-2833.	2.0	29

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37	Signal yields of keV electronic recoils and their discrimination from nuclear recoils in liquid xenon. <i>Physical Review D</i> , 2018, 97, .	4.7	29
38	Model independent approach to the single photoelectron calibration of photomultiplier tubes. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2017, 863, 35-46.	1.6	28
39	Characterization of the Hamamatsu VUV4 MPPCs for nEXO. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 940, 371-379.	1.6	28
40	Results from a calibration of XENON100 using a source of dissolved radon-220. <i>Physical Review D</i> , 2017, 95, .	4.7	26
41	The DarkSide Multiton Detector for the Direct Dark Matter Search. <i>Advances in High Energy Physics</i> , 2015, 2015, 1-8.	1.1	21
42	Cosmogenic production of ^{39}Ar and ^{37}Ar in argon. <i>Physical Review C</i> , 2019, 100, .	2.9	21
43	The WArP experiment. <i>Journal of Physics: Conference Series</i> , 2010, 203, 012006.	0.4	20
44	Lifetime measurements of ^{214}Po and ^{212}Po with the CTF liquid scintillator detector at LNGS. <i>European Physical Journal A</i> , 2013, 49, 1.	2.5	17
45	Characterization of an Ionization Readout Tile for nEXO. <i>Journal of Instrumentation</i> , 2018, 13, P01006-P01006.	1.2	14
46	Ultra-low radioactivity Kapton and copper-Kapton laminates. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 959, 163573.	1.6	14
47	Cosmogenic activation of silicon. <i>Physical Review D</i> , 2020, 102, .	4.7	11
48	Kiloton-scale xenon detectors for neutrinoless double beta decay and other new physics searches. <i>Physical Review D</i> , 2021, 104, .	4.7	11
49	DarkSide-50: A WIMP Search with a Two-phase Argon TPC. <i>Physics Procedia</i> , 2015, 61, 124-129.	1.2	10
50	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
51	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
52	Discovery of underground argon with a low level of radioactive ^{39}Ar and possible applications to WIMP dark matter detectors. <i>Journal of Physics: Conference Series</i> , 2008, 120, 042015.	0.4	9
53	The WArP Experiment. <i>Journal of Physics: Conference Series</i> , 2011, 308, 012005.	0.4	9
54	Direct Search for Dark Matter with DarkSide. <i>Journal of Physics: Conference Series</i> , 2015, 650, 012006.	0.4	9

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55	Reflectivity and PDE of VUV4 Hamamatsu SIPMs in liquid xenon. Journal of Instrumentation, 2020, 15, P01019-P01019.	1.2	9
56	Simulation of charge readout with segmented tiles in nEXO. Journal of Instrumentation, 2019, 14, P09020-P09020.	1.2	8
57	Reflectance of Silicon Photomultipliers at Vacuum Ultraviolet Wavelengths. IEEE Transactions on Nuclear Science, 2020, 67, 2501-2510.	2.0	8
58	The electronics and data acquisition system for the DarkSide-50 veto detectors. Journal of Instrumentation, 2016, 11, P12007-P12007.	1.2	7
59	The DarkSide Experiment: Present Status and Future. Journal of Physics: Conference Series, 2017, 798, 012109.	0.4	7
60	Dark matter detection capabilities of a large multipurpose Liquid Argon Time Projection Chamber. Journal of Instrumentation, 2020, 15, P09026-P09026.	1.2	7
61	Characterization of photomultiplier tubes with a realistic model through GPU-boosted simulation. Journal of Instrumentation, 2018, 13, T02011-T02011.	1.2	5
62	Study of silicon photomultiplier performance in external electric fields. Journal of Instrumentation, 2018, 13, T09006-T09006.	1.2	5
63	Measurements of electron transport in liquid and gas Xenon using a laser-driven photocathode. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 972, 163965.	1.6	5
64	Reflectivity of VUV-sensitive silicon photomultipliers in liquid Xenon. Journal of Instrumentation, 2021, 16, P08002.	1.2	5
65	Solar neutrino with Borexino: Results and perspectives. Physics of Particles and Nuclei, 2015, 46, 166-173.	0.7	4
66	The DarkSide awakens. Journal of Physics: Conference Series, 2016, 718, 042016.	0.4	4
67	Recent results and future development of Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 235-236, 55-60.	0.4	3
68	Short Distance Neutrino Oscillations with Borexino: SOX. Physics Procedia, 2015, 61, 511-517.	1.2	3
69	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
70	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
71	Borexino: recent results, detector calibration and future perspectives. Nuclear Physics, Section B, Proceedings Supplements, 2011, 217, 101-106.	0.4	2
72	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

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73	SOX: Short Distance Neutrino Oscillations with Borexino. Nuclear and Particle Physics Proceedings, 2016, 273-275, 1760-1764.	0.5	2
74	Event reconstruction in a liquid xenon Time Projection Chamber with an optically-open field cage. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1000, 165239.	1.6	2
75	First evidence of ν_{pep} solar neutrinos by direct detection in Borexino. Journal of Physics: Conference Series, 2012, 375, 042030.	0.4	1
76	Solar neutrino results from Borexino. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 104-106.	0.4	1
77	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
78	Neutrino measurements from the Sun and Earth: Results from Borexino. AIP Conference Proceedings, 2015, , .	0.4	1
79	Geo-neutrinos from 1353 Days with the Borexino Detector. Physics Procedia, 2015, 61, 340-344.	1.2	1
80	Geo-neutrinos and Borexino. Physics of Particles and Nuclei, 2015, 46, 174-181.	0.7	1
81	Measurement of the onset of nucleate boiling in liquid xenon. Journal of Instrumentation, 2021, 16, T02004-T02004.	1.2	1
82	200 days of Borexino data. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 90-95.	0.4	0
83	Production and suppression of ^{11}C in the solar neutrino experiment Borexino. , 2011, , .		0
84	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
85	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
86	Neutrinos from the sun and from radioactive sources. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 77-81.	0.4	0
87	STUDY OF THE RARE PROCESSES WITH THE BOREXINO DETECTOR. , 2013, , 177-180.		0
88	Low energy neutrinos. International Journal of Modern Physics Conference Series, 2014, 31, 1460285.	0.7	0
89	The DarkSide Program. EPJ Web of Conferences, 2016, 121, 06010.	0.3	0
90	The DarkSide-50 outer detectors. Journal of Physics: Conference Series, 2016, 718, 042062.	0.4	0

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91	A first walk on the DarkSide. Nuclear and Particle Physics Proceedings, 2016, 273-275, 452-458.	0.5	0
92	First real-time detection of solar pp neutrinos by Borexino. EPJ Web of Conferences, 2016, 121, 01001.	0.3	0
93	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
94	The DarkSide direct dark matter search with liquid argon. AIP Conference Proceedings, 2017, , .	0.4	0
95	Decision trees for optimizing the minimum detectable concentration of radioxenon detectors. Journal of Environmental Radioactivity, 2021, 229-230, 106542.	1.7	0
96	THE DARKSIDE-50 EXPERIMENT: A LIQUID ARGON TARGET FOR DARK MATTER PARTICLES. , 2017, , 355-360.		0