

Biagio Rossi

List of Publications by Year in descending order

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92
papers

3,277
citations

186265

28
h-index

149698

56
g-index

94
all docs

94
docs citations

94
times ranked

6674
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-Mass Dark Matter Search with the DarkSide-50 Experiment. Physical Review Letters, 2018, 121, 081307.	7.8	259
2	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
3	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
4	NA61/SHINE facility at the CERN SPS: beams and detector system. Journal of Instrumentation, 2014, 9, P06005-P06005.	1.2	170
5	DarkSide-50 532-day dark matter search with low-radioactivity argon. Physical Review D, 2018, 98, .	4.7	147
6	Measurements of cross sections and charged pion spectra in proton-carbon interactions at 31 GeV. $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">c \rangle$. Physical Review C, 2011, 84, .	2.9	142
7	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$ in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
8	Results from the first use of low radioactivity argon in a dark matter search. Physical Review D, 2016, 93, .	4.7	108
9	Large underground, liquid based detectors for astro-particle physics in Europe: scientific case and prospects. Journal of Cosmology and Astroparticle Physics, 2007, 2007, 011-011.	5.4	99
10	The ArgoNeuT detector in the NuMI low-energy beam line at Fermilab. Journal of Instrumentation, 2012, 7, P10019-P10019.	1.2	96
11	Measurement of neutrino and antineutrino oscillations by the T2K experiment including a new additional sample of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">c \rangle$ interactions at the far detector. Physical Review D, 2017, 96, .	4.7	95
12	Measurement of production properties of positively charged kaons in proton-carbon interactions at 31 GeV. $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">c \rangle$. Physical Review C, 2012, 85, .	2.9	86
13	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of Instrumentation, 2020, 15, P10017-P10017.	1.2	84
14	Measurement of scintillation and ionization yield and scintillation pulse shape from nuclear recoils in liquid argon. Physical Review D, 2015, 91, .	4.7	80
15	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2020, 80, 75.	3.9	78
16	First Measurements of Inclusive Muon Neutrino Charged Current Differential Cross Sections on Argon. Physical Review Letters, 2012, 108, 161802.	7.8	75
17	Searches for physics beyond the standard model with the M_{T2} variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2020, 80, 3.	3.9	70
18	Characterization of nuclear effects in muon-neutrino scattering on hydrocarbon with a measurement of final-state kinematics and correlations in charged-current pionless interactions at T2K. Physical Review D, 2018, 98, .	4.7	66

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19	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2021, 81, 378.	3.9	40
20	Measurement of the liquid argon energy response to nuclear and electronic recoils. Physical Review D, 2018, 97, .	4.7	38
21	Measurement of through-going particle momentum by means of multiple scattering with the ICARUS T600 TPC. European Physical Journal C, 2006, 48, 667-676.	3.9	36
22	Pion emission from the T2K replica target: Method, results and application. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 701, 99-114.	1.6	36
23	DarkSide search for dark matter. Journal of Instrumentation, 2013, 8, C11021-C11021.	1.2	36
24	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2021, 81, 488.	3.9	35
25	Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2021, 81, 13.	3.9	33
26	Search for top squark pair production using dilepton final states in pp collision data collected at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2021, 81, 3.	3.9	33
27	Simulation of argon response and light detection in the DarkSide-50 dual phase TPC. Journal of Instrumentation, 2017, 12, P10015-P10015.	1.2	31
28	Observation of the dependence on drift field of scintillation from nuclear recoils in liquid argon. Physical Review D, 2013, 88, .	4.7	30
29	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
30	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of Instrumentation, 2020, 15, P02027-P02027.	1.2	27
31	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
32	Design and operation of ARGONTUBE: a 5 m long drift liquid argon TPC. Journal of Instrumentation, 2013, 8, P07002-P07002.	1.2	24
33	Measurements of $pp \rightarrow Z Z$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$. European Physical Journal C, 2021, 81, 200.	3.9	24
34	Measurement of the two-photon absorption cross-section of liquid argon with a time projection chamber. New Journal of Physics, 2010, 12, 113024.	2.9	23
35	Solar neutrino detection in a large volume double-phase liquid argon experiment. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 017-017.	5.4	23
36	Updated T2K measurements of muon neutrino and antineutrino disappearance using $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mn} \rangle 1.5 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \tilde{\nu} \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 1 \langle \text{mml:mn} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mn} \rangle 0 \langle \text{mml:mn} \rangle \langle \text{mml:mn} \rangle$ protons on target. Physical Review D, 2017, 96, .	4.7	23

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37	Measurement of inclusive double-differential $\hat{1}/2\hat{1}/4$ charged-current cross section with improved acceptance in the T2K off-axis near detector. <i>Physical Review D</i> , 2018, 98, .	4.7	23
38	The DarkSide Multiton Detector for the Direct Dark Matter Search. <i>Advances in High Energy Physics</i> , 2015, 2015, 1-8.	1.1	21
39	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. <i>Computing and Software for Big Science</i> , 2020, 4, 10.	2.9	21
40	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	21
41	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	20
42	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2021, 81, 723.	3.9	19
43	A prototype liquid Argon Time Projection Chamber for the study of UV laser multi-photon ionization. <i>Journal of Instrumentation</i> , 2009, 4, P07011-P07011.	1.2	18
44	Analysis of a large sample of neutrino-induced muons with the ArgoNeuT detector. <i>Journal of Instrumentation</i> , 2012, 7, P10020-P10020.	1.2	18
45	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2021, 81, 629.	3.9	18
46	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2021, 81, 970.	3.9	18
47	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2022, 82, 290.	3.9	18
48	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in $\sqrt{s_{NN}} = 2.76$ and $5.02, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2020, 80, 534.	3.9	14
49	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	14
50	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. <i>European Physical Journal C</i> , 2022, 82, 153.	3.9	14
51	First measurements with ARGONTUBE, a 5m long drift Liquid Argon TPC. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 718, 454-458.	1.6	13
52	Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	13
53	Study of ionization signals in a TPC filled with a mixture of liquid Argon and Nitrogen. <i>Journal of Instrumentation</i> , 2008, 3, P10002-P10002.	1.2	12
54	A new generation photodetector for astroparticle physics: The VSIPMT. <i>Astroparticle Physics</i> , 2015, 67, 18-25.	4.3	12

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55	Development and validation of HERWIG tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
56	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	12
57	CALIS – A CALibration Insertion System for the DarkSide-50 dark matter search experiment. Journal of Instrumentation, 2017, 12, T12004-T12004.	1.2	10
58	Direct Search for Dark Matter with DarkSide. Journal of Physics: Conference Series, 2015, 650, 012006.	0.4	9
59	Directional modulation of electron-ion pairs recombination in liquid argon. Journal of Instrumentation, 2017, 12, P12002-P12002.	1.2	9
60	Measurement of $\hat{\nu}_{\mu}^{\pm}$ and $\hat{\nu}_{\tau}^{\pm}$ charged current inclusive cross sections and their ratio with the T2K off-axis near detector. Physical Review D, 2017, 96, .	4.7	9
61	Search for a heavy vector resonance decaying to a Z boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9
62	Pulse-shape discrimination of scintillation from alpha and beta particles with liquid scintillator and Geiger-mode multipixel avalanche diodes. Journal of Instrumentation, 2011, 6, P07009-P07009.	1.2	8
63	Argontube: an R&D Liquid Argon Time projection Chamber. Journal of Instrumentation, 2012, 7, C02011-C02011.	1.2	8
64	Measurement of the muon neutrino charged-current cross sections on water, hydrocarbon and iron, and their ratios, with the T2K on-axis detectors. Progress of Theoretical and Experimental Physics, 2019, 2019, .	6.6	8
65	Directional dark matter detection sensitivity of a two-phase liquid argon detector. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 014-014.	5.4	8
66	The DarkSide Experiment: Present Status and Future. Journal of Physics: Conference Series, 2017, 798, 012109.	0.4	7
67	Ionization signals from electrons and alpha-particles in mixtures of liquid Argon and Nitrogen – perspectives on protons for Gamma Resonant Nuclear Absorption applications. Journal of Instrumentation, 2010, 5, P10009-P10009.	1.2	6
68	Effective field theory interactions for liquid argon target in DarkSide-50 experiment. Physical Review D, 2020, 101, .	4.7	6
69	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	6
70	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	6
71	Effect of low electric fields on alpha scintillation light yield in liquid argon. Journal of Instrumentation, 2017, 12, P01021-P01021.	1.2	5
72	Search for flavor-changing neutral current interactions of the top quark and the Higgs boson decaying to a bottom quark-antiquark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5

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73	Search for long-lived particles decaying into muon pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV collected with a dedicated high-rate data stream. Journal of High Energy Physics, 2022, 2022, .	4.7	5
74	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5
75	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5
76	The DarkSide awakens. Journal of Physics: Conference Series, 2016, 718, 042016.	0.4	4
77	Search for higgsinos decaying to two Higgs bosons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	4.7	4
78	30 kV coaxial vacuum-tight feedthrough for operation at cryogenic temperatures. Journal of Instrumentation, 2010, 5, T11002-T11002.	1.2	3
79	Measurements of angular distance and momentum ratio distributions in three-jet and $\{Z\}$ + two-jet final states in $\{p\}\{p\}$ collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
80	Search for a heavy resonance decaying into a top quark and a W boson in the lepton+jets final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
81	Measurement of the inclusive $\overline{t}t$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
82	Search for heavy resonances decaying to a pair of Lorentz-boosted Higgs bosons in final states with leptons and a bottom quark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	4.7	2
83	Monitoring the parameters of a large size liquid Argon Time Projection Chamber using UV laser beams. Journal of Physics: Conference Series, 2011, 308, 012025.	0.4	1
84	A Global R&D Program on Liquid Ar Time Projection Chambers Under Execution at the University of Bern. Physics Procedia, 2012, 37, 1147-1155.	1.2	1
85	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	1
86	Observation of $B^0 \rightarrow \psi(2S)K^0_{\text{up}} + \psi(2S)K^0_{\text{down}}$ and $B^0_{\text{up}} \rightarrow \psi(2S)K^0_{\text{up}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1
87	The NA61/SHINE Collaboration. Nuclear Physics A, 2009, 830, 961c-962c.	1.5	0
88	Vacuum silicon photo multiplier tube (VSiPMT): Towards a new generation of photon detectors. , 2014, , .		0
89	First results of performance tests of the newly designed Vacuum Silicon Photo Multiplier Tube (VSiPMT).. Journal of Instrumentation, 2014, 9, C04016-C04016.	1.2	0
90	Feasibility study of SiGHT: a novel ultra low background photosensor for low temperature operation. Journal of Instrumentation, 2017, 12, P02019-P02019.	1.2	0

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91	The DarkSide direct dark matter search with liquid argon. AIP Conference Proceedings, 2017, , .	0.4	0
92	Recoil Directionality Studies in Two-Phase Liquid Argon TPC Detectors. EPJ Web of Conferences, 2017, 164, 07036.	0.3	0