

Paul Lecoq

List of Publications by Year in descending order

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Version: 2024-02-01

208
papers

10,604
citations

31976

53
h-index

38395

95
g-index

211
all docs

211
docs citations

211
times ranked

9240
citing authors

#	ARTICLE	IF	CITATIONS
1	Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 TeV. European Physical Journal C, 2015, 75, 212.	3.9	541
2	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	3.9	499
3	Development of new scintillators for medical applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 809, 130-139.	1.6	353
4	Observation of the diphoton decay of the Higgs boson and measurement of its properties. European Physical Journal C, 2014, 74, 3076.	3.9	342
5	Observation of a new boson with mass near 125 GeV in pp collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	320
6	Needs, Trends, and Advances in Inorganic Scintillators. IEEE Transactions on Nuclear Science, 2018, 65, 1977-1997.	2.0	305
7	Lead tungstate (PbWO ₄) scintillators for LHC EM calorimetry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 365, 291-298.	1.6	283
8	Lead tungstate scintillation material. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 490, 30-50.	1.6	276
9	Pushing the Limits in Time-of-Flight PET Imaging. IEEE Transactions on Radiation and Plasma Medical Sciences, 2017, 1, 473-485.	3.7	217
10	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. European Physical Journal C, 2020, 80, 4.	3.9	198

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#	ARTICLE	IF	CITATIONS
19	Inorganic Scintillators for Detector Systems. Particle Acceleration and Detection, 2017, , .	0.5	126
20	High-frequency SiPM readout advances measured coincidence time resolution limits in TOF-PET. Physics in Medicine and Biology, 2019, 64, 055012.	3.0	124
21	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13$ TeV in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
22	Measurements of inclusive W and Z cross sections in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	122
23	Time of flight positron emission tomography towards 100ps resolution with L(Y)SO: an experimental and theoretical analysis. Journal of Instrumentation, 2013, 8, P07014-P07014.	1.2	106
24	LuAG:Ce fibers for high energy calorimetry. Journal of Applied Physics, 2010, 108, .	2.5	103
25	Charged-particle nuclear modification factors in PbPb and pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	103
26	Measurements of properties of the Higgs boson decaying into the four-lepton final state in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	101
27	Measurement of the underlying event activity at the LHC with $\sqrt{s} = 7$ TeV and comparison with $\sqrt{s} = 0.9$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	97
28	Search for a Higgs boson in the mass range from 145 to 1000 GeV decaying to a pair of W or Z bosons. Journal of High Energy Physics, 2015, 2015, 1.	4.7	92
29	Decay kinetics and thermoluminescence of PbWO ₄ : La ³⁺ . Applied Physics Letters, 1997, 71, 3755-3757.	3.3	90
30	Factors Influencing Time Resolution of Scintillators and Ways to Improve Them. IEEE Transactions on Nuclear Science, 2010, 57, 2411-2416.	2.0	90
31	On the Origin of the Transmission Damage in Lead Tungstate Crystals under Irradiation. Physica Status Solidi A, 1998, 170, 47-62.	1.7	88
32	Can Transient Phenomena Help Improving Time Resolution in Scintillators?. IEEE Transactions on Nuclear Science, 2014, 61, 229-234.	2.0	87
33	Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	86
34	Clear-PEM, a dedicated PET camera for mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 486, 1-6.	1.6	84
35	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P10017-P10017.	1.2	84
36	Time resolution deterioration with increasing crystal length in a TOF-PET system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 737, 92-100.	1.6	80

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37	Time-Based Readout of a Silicon Photomultiplier (SiPM) for Time of Flight Positron Emission Tomography (TOF-PET). IEEE Transactions on Nuclear Science, 2011, 58, 597-604.	2.0	79
38	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 75.	3.9	78
39	Improved single photon time resolution for analog SiPMs with front end readout that reduces influence of electronic noise. Physics in Medicine and Biology, 2018, 63, 185022.	3.0	75
40	Searches for physics beyond the standard model with the $M_{\mathbb{T}}$ variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 3.	3.9	70
41	Measurement of the $\sigma(\text{t}\bar{\text{t}})$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at. European Physical Journal C, 2019, 79, 368.	3.9	68
42	Single photon time resolution of state of the art SiPMs. Journal of Instrumentation, 2016, 11, P10016-P10016.	1.2	67
43	Precise rise and decay time measurements of inorganic scintillators by means of X-ray and 511 keV excitation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 891, 42-52.	1.6	65
44	Search for new physics in same-sign dilepton events in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2016, 76, 439.	3.9	64
45	On light sharing TOF-PET modules with depth of interaction and 157 ps FWHM coincidence time resolution. Physics in Medicine and Biology, 2019, 64, 155008.	3.0	64
46	Improved light yield of lead tungstate scintillators. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 450, 71-74.	1.6	63
47	Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	63
48	Measurement of differential cross sections for Higgs boson production in the diphoton decay channel in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 13.	3.9	62
49	Measurement of the inelastic proton-proton cross section at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62
50	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	57
51	Preparation and luminescence properties of ZnO:Ga polystyrene composite scintillator. Optics Express, 2016, 24, 15289.	3.4	56
52	Pushing Cherenkov PET with BGO via coincidence time resolution classification and correction. Physics in Medicine and Biology, 2020, 65, 115004.	3.0	56
53	Measurement of the double-differential inclusive jet cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2016, 76, 451.	3.9	55
54	Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at $s = 8$ TeV and cross section ratios to 2.76 and 7 TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	54

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55	Towards a metamaterial approach for fast timing in PET: experimental proof-of-concept. Physics in Medicine and Biology, 2019, 64, 185018.	3.0	54
56	On the use of CdSe scintillating nanoplatelets as time taggers for high-energy gamma detection. Npj 2D Materials and Applications, 2019, 3, .	7.9	53
57	Scintillator developments for high energy physics and medical imaging. IEEE Transactions on Nuclear Science, 2000, 47, 1311-1314.	2.0	52
58	Measurements of the $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross section and the $\text{BR}(\text{Z} \rightarrow 4\ell)$ branching fraction, and constraints on anomalous triple gauge couplings at. European Physical Journal C, 2018, 78, 165.	3.9	52
59	Systematic study of the short-term instability of PbWO ₄ scintillator parameters under irradiation. Radiation Measurements, 1998, 29, 27-38.	1.4	51
60	New inorganic scintillation materials development for medical imaging. IEEE Transactions on Nuclear Science, 2002, 49, 1651-1654.	2.0	51
61	Search for the associated production of the Higgs boson with a top-quark pair. Journal of High Energy Physics, 2014, 2014, 1.	4.7	51
62	Probing the Concepts of Photonic Crystals on Scintillating Materials. IEEE Transactions on Nuclear Science, 2008, 55, 1102-1106.	2.0	49
63	Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ by the CMS and TOTEM experiments. European Physical Journal C, 2014, 74, 1.	3.9	49
64	On the comparison of analog and digital SiPM readout in terms of expected timing performance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 787, 6-11.	1.6	47
65	Suppression of the radiation damage in lead tungstate scintillation crystal. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 426, 486-490.	1.6	45
66	Ce-doped LuAG single-crystal fibers grown from the melt for high-energy physics. Acta Materialia, 2014, 67, 232-238.	7.9	44
67	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	43
68	Enhancing Light Extraction of Inorganic Scintillators Using Photonic Crystals. Crystals, 2018, 8, 78.	2.2	43
69	Ultrafast emission from colloidal nanocrystals under pulsed X-ray excitation. Journal of Instrumentation, 2016, 11, P10015-P10015.	1.2	41
70	Measurement of the $\sigma(\text{pp} \rightarrow \text{t}\bar{\text{t}})$ production cross section in the $\text{e}^{\pm}\mu$ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	41
71	New Approaches to Improve Timing Resolution in Scintillators. IEEE Transactions on Nuclear Science, 2012, 59, 2313-2318.	2.0	40
72	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13, \text{ext}\{\text{TeV}\}\text{ext}\{\text{V}\}$. European Physical Journal C, 2021, 81, 378.	3.9	40

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73	Measurement of the ZZ production cross section and search for anomalous couplings in $2\hat{a}, "2\hat{a}, "a\epsilon^2$ final states in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	4.7	39
74	Measurement of differential cross sections for $\{Z\}$ Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{TeV\}$ $s = 13$ TeV. European Physical Journal C, 2018, 78, 965.	3.9	39
75	Intrinsic energy resolution and light output of the Lu0.7Y0.3AP:Ce scintillator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 493, 131-136.	1.6	38
76	Results of the first performance tests * of the CMS electromagnetic calorimeter. European Physical Journal C, 2006, 44, 1-10.	3.9	38
77	A Comprehensive & Systematic Study of Coincidence Time Resolution and Light Yield Using Scintillators of Different Size and Wrapping. IEEE Transactions on Nuclear Science, 2013, 60, 3163-3171.	2.0	38
78	Review on photonic crystal coatings for scintillators. International Journal of Modern Physics A, 2014, 29, 1430070.	1.5	38
79	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s} = 13$ $s = 13$ $\text{ext } \{TeV\}$ TeV. European Physical Journal C, 2017, 77, 636.	3.9	38
80	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying l, leptons at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
81	On the structure, synthesis, and characterization of ultrafast blue-emitting CsPbBr3 nanoplatelets. APL Materials, 2019, 7, .	5.1	38
82	Results of Photonic Crystal Enhanced Light Extraction on Heavy Inorganic Scintillators. IEEE Transactions on Nuclear Science, 2012, 59, 2334-2339.	2.0	37
83	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{TeV\}$ $s = 13$ TeV. European Physical Journal C, 2021, 81, 488.	3.9	35
84	Effect of Aspect Ratio on the Light Output of Scintillators. IEEE Transactions on Nuclear Science, 2012, 59, 2340-2345.	2.0	34
85	Single crystalline LuAG fibers for homogeneous dual-readout calorimeters. Journal of Instrumentation, 2013, 8, P09019-P09019.	1.2	34
86	Search for dark matter produced in association with a leptonically decaying $\{Z\}$ boson in proton-proton collisions at $\sqrt{s}=13, \text{ext } \{TeV\}$ $s = 13$ TeV. European Physical Journal C, 2021, 81, 13.	3.9	33
87	Search for top squark pair production using dilepton final states in $\{p\}\{p\}$ collision data collected at $\sqrt{s}=13, \text{ext } \{TeV\}$ $s = 13$ TeV. European Physical Journal C, 2021, 81, 3.	3.9	33
88	Measurements of the $\{Z\}$ Z $\{Z\}$ Z production cross sections in the $2u$ $2l$ $1/2$ channel in proton-proton collisions at $\sqrt{s} = 7$ $s = 7$ and 8 TeV. European Physical Journal C, 2015, 75, 511.	3.9	32
89	Timing capabilities of garnet crystals for detection of high energy charged particles. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 852, 1-9.	1.6	32
90	Searches for pair production of third-generation squarks in $\sqrt{s}=13$ $s = 13$ $\text{ext } \{TeV\}$ TeV pp collisions. European Physical Journal C, 2017, 77, 327.	3.9	32

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91	Metascintillators for Ultrafast Gamma Detectors: A Review of Current State and Future Perspectives. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 5-15.	3.7	32
92	Shape, transverse size, and charged-hadron multiplicity of jets in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	4.7	31
93	Search for top squark pair production in pp collisions at $s = 13 \sqrt{s}=13$ TeV using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
94	Scintillation yield of hot intraband luminescence. Journal of Luminescence, 2018, 198, 260-271.	3.1	31
95	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $s = 8 \sqrt{s}=8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	29
96	Light yield of scintillating nanocrystals under X-ray and electron excitation. Journal of Luminescence, 2019, 215, 116613.	3.1	29
97	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 280.	3.9	29
98	Advances in the scintillation performance of LuYAP:Ce single crystals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 537, 295-301.	1.6	28
99	New crystal technologies for novel calorimeter concepts. Journal of Physics: Conference Series, 2009, 160, 012016.	0.4	28
100	Search for $\overline{t}t\overline{H}$ production in the $H \rightarrow b\overline{b}$ decay channel with leptonic $\overline{t}t$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
101	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
102	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 291.	3.9	27
103	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P02027-P02027.	1.2	27
104	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
105	Influence of stoichiometry on the optical properties of lead tungstate crystals. Chemical Physics Letters, 1997, 277, 65-70.	2.6	25
106	Measurement of energy flow at large pseudorapidities in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV. Journal of High Energy Physics, 2011, 2011, 1.	4.7	25
107	EndoTOFPET-US: a novel multimodal tool for endoscopy and positron emission tomography. Journal of Instrumentation, 2013, 8, C04002-C04002.	1.2	25
108	Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	25

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109	Slow components and afterglow in PWO crystal scintillations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 403, 302-312.	1.6	24
110	Measurements of $\sigma(\text{pp} \rightarrow \text{ZZ})$ 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
111	Beam tests of lead tungstate crystal matrices and a silicon strip preshower detector for the CMS electromagnetic calorimeter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 412, 223-237.	1.6	23
112	Test beam results with LuAG fibers for next-generation calorimeters. Journal of Instrumentation, 2013, 8, P10017-P10017.	1.2	22
113	Search for direct production of supersymmetric partners of the top quark in the all-jets final state in proton-proton collisions at $s = 13 \sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2017, 2017, 1.	4.7	22
114	Metascintillators: New Results for TOF-PET Applications. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 510-516.	3.7	22
115	Timing performance of ZnO:Ga nanopowder composite scintillators. Physica Status Solidi - Rapid Research Letters, 2016, 10, 843-847.	2.4	21
116	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. Computing and Software for Big Science, 2020, 4, 10.	2.9	21
117	CMOS-compatible all-dielectric metalens for improving pixel photodetector arrays. APL Photonics, 2020, 5, .	5.7	21
118	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	4.7	21
119	SiPM applications in positron emission tomography: toward ultimate PET time-of-flight resolution. European Physical Journal Plus, 2021, 136, 1.	2.6	21
120	Search of new scintillation materials for nuclear medicine applications. IEEE Transactions on Nuclear Science, 2001, 48, 628-631.	2.0	20
121	Luminescence of Ce doped oxygen crystalline compounds based on Hf and Ba. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 497, 206-209.	1.6	20
122	Conical photonic crystals for enhancing light extraction efficiency from high refractive index materials. Optics Express, 2015, 23, 22730.	3.4	20
123	Search for $\sigma(\text{pp} \rightarrow \text{t}\overline{\text{t}}\text{H})$ production in the all-jet final state in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
124	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
125	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2020, 2020, 1.	4.7	20
126	Radiation hardness qualification of PbWO ₄ scintillation crystals for the CMS Electromagnetic Calorimeter. Journal of Instrumentation, 2010, 5, P03010-P03010.	1.2	19

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127	Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
128	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $\tilde{l}, \tilde{\nu}_\tau$ leptons in pp collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
129	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. European Physical Journal C, 2021, 81, 723.	3.9	19
130	Measurement of the differential Drell-Yan cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	18
131	Time-of-flight computed tomography - proof of principle. Physics in Medicine and Biology, 2020, 65, 085013.	3.0	18
132	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. European Physical Journal C, 2021, 81, 629.	3.9	18
133	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s} = 13, \text{ext \{TeV\}}$. European Physical Journal C, 2021, 81, 970.	3.9	18
134	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s}=13, \text{ext \{TeV\}}$. European Physical Journal C, 2022, 82, 290.	3.9	18
135	Results from tests on matrices of lead tungstate crystals using high energy beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 378, 410-426.	1.6	17
136	Probing color coherence effects in pp collisions at $\sqrt{s}=7, \text{ext \{TeV\}}$ $s = 7$ TeV. European Physical Journal C, 2014, 74, 2901.	3.9	17
137	Search for $Z\tilde{l}^3$ resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17
138	Measurement of charged particle spectra in minimum-bias events from proton-proton collisions at $\sqrt{s}=13, \text{ext \{TeV\}}$ $s = 13$ TeV. European Physical Journal C, 2018, 78, 697.	3.9	17
139	Search for dark matter produced in association with a single top quark or a top quark pair in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	17
140	SSPM Readout of LSO, (Lu-Y)AP:Ce and PWO-II Pixels for PET Detector Modules. IEEE Transactions on Nuclear Science, 2008, 55, 1352-1356.	2.0	16
141	DOI estimation through signal arrival time distribution: a theoretical description including proof of concept measurements. Physics in Medicine and Biology, 2021, 66, 095015.	3.0	16
142	Studies of lead tungstate crystal matrices in high energy beams for the CMS electromagnetic calorimeter at the LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 385, 425-434.	1.6	15
143	Measurement of the $t\bar{t}\tilde{A}^-$ production cross section using events with one lepton and at least one jet in pp collisions at $s = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	15
144	Core-shell ZnO:Ga-SiO ₂ nanocrystals: limiting particle agglomeration and increasing luminescence via surface defect passivation. RSC Advances, 2019, 9, 28946-28952.	3.6	15

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145	Dual Readout With PWO Crystals and LuAG Crystal Scintillating Fibers. IEEE Transactions on Nuclear Science, 2010, 57, 1454-1459.	2.0	14
146	Test beam results of a high granularity LuAG fibre calorimeter prototype. Journal of Instrumentation, 2016, 11, P05004-P05004.	1.2	14
147	Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	14
148	Measurements of the $pp \rightarrow WZ$ inclusive and differential production cross sections and constraints on charged anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
149	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV \sqrt{s} collisions at $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV. European Physical Journal C, 2020, 80, 534.	3.9	14
150	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	14
151	Design considerations for a new generation of SiPMs with unprecedented timing resolution. Journal of Instrumentation, 2021, 16, P02019-P02019.	1.2	14
152	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 153.	3.9	14
153	Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	13
154	Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
155	Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
156	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. Journal of High Energy Physics, 2022, 2022, 1.	4.7	13
157	Thermally stimulated luminescence of PbWO ₄ crystals. Journal of Luminescence, 1997, 72-74, 689-690.	3.1	12
158	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
159	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0$ or $\tilde{\chi}_1^\pm$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
160	Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	12
161	Development and validation of HERWIG ⁺⁺ tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
162	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

#	ARTICLE	IF	CITATIONS
163	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	11
164	Improving light output and coincidence time resolution of scintillating crystals using nanoimprinted photonic crystal slabs. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 254-261.	1.6	11
165	Enhanced Scintillation Light Extraction Using Nanoimprinted Photonic Crystals. IEEE Transactions on Nuclear Science, 2018, 65, 1059-1065.	2.0	10
166	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u\bar{u}\mathcal{Q}\bar{\mathcal{Q}}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	4.7	10
167	Large-scale production of PWO scintillation elements for CMS ECAL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 537, 173-176.	1.6	9
168	Search for a heavy vector resonance decaying to a $Z\bar{Z}\mathcal{Q}\bar{\mathcal{Q}}$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13, \sqrt{s} = 13, \sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9
169	Factors influencing time resolution of scintillators and ways to improve them. , 2009, , .		8
170	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $u\bar{u}\mathcal{Q}\bar{\mathcal{Q}}$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	8
171	First results on prototype production of new LuYAP crystals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 527, 50-53.	1.6	7
172	Large Scale Production of Photonic Crystals Scintillators. IEEE Transactions on Nuclear Science, 2016, 63, 639-643.	2.0	7
173	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	7
174	Scintillation Detectors for Charged Particles and Photons. , 2020, , 45-89.		7
175	Light Extraction From Scintillating Crystals Enhanced by Photonic Crystal Structures Patterned by Focused Ion Beam. IEEE Transactions on Nuclear Science, 2016, 63, 644-648.	2.0	6
176	Photonic Crystal Slabs Applied to Inorganic Scintillators. IEEE Transactions on Nuclear Science, 2018, 65, 2191-2195.	2.0	6
177	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6
178	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
179	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
180	Development of ClearPEM-Sonic, a multimodal mammography system for PET and Ultrasound. Journal of Instrumentation, 2014, 9, C03008-C03008.	1.2	5

#	ARTICLE	IF	CITATIONS
181	Energy discrimination for positron emission tomography using the time information of the first detected photons. Journal of Instrumentation, 2018, 13, P01012-P01012.	1.2	5
182	Search for the pair production of light top squarks in the $e^+e^- \rightarrow t\bar{t}$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
183	Measurement of energy flow at large pseudorapidities in pp collisions at ($\sqrt{s} = 0.9$) and 7 TeV. , 2011, 2011, 1.		5
184	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8, \sqrt{s} = 13$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	3.9	5
185	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
186	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
187	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
188	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
189	Scintillation and Inorganic Scintillators. Particle Acceleration and Detection, 2017, , 1-41.	0.5	4
190	Scintillation Detectors for Charged Particles and Photons. Landolt-Börnstein - Group I Elementary Particles, Nuclei and Atoms, 2011, , 45-71.	0.2	4
191	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
192	Measurements of the $(p) \rightarrow (Z)$ production cross section and the $(Z) \rightarrow 4\ell$ branching fraction, and constraints on anomalous triple gauge couplings at $(\sqrt{s} = 13, \sqrt{s} = 13)$ TeV. , 2018, 78, 1.		3
193	A novel metascintillator approach for ultra-fast timing in Positron Emission Tomography. , 2020, , .		3
194	Application of PWO crystals for detection of low-activity gamma-radiation in the energy range above 3MeV. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 537, 439-442.	1.6	2
195	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
196	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
197	Measurement of the inclusive (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
198	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

#	ARTICLE	IF	CITATIONS
199	Influence of Crystal Structure Defects on Scintillation Properties. Particle Acceleration and Detection, 2017, , 197-252.	0.5	1
200	Examples of Recent Crystal Development. Particle Acceleration and Detection, 2017, , 345-399.	0.5	1
201	Detectors in Medicine and Biology. , 2020, , 913-964.		1
202	Charged Hadron Radiation Damage of Scintillators. Particle Acceleration and Detection, 2017, , 253-280.	0.5	1
203	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
204	Observation of $B^0 \rightarrow \psi(2S) K^0_{\text{S}} \psi^+ \psi^-$ and $B^0_{\text{S}} \rightarrow \psi(2S) K^0_{\text{S}} \psi^+ \psi^-$ decays. European Physical Journal C, 2022, 82, .	3.9	1
205	Potential of non-linear optical phenomena for fast timing in detectors of ionizing radiation. , 2015, , .		0
206	Metamaterials: opportunities in medical imaging. , 2019, , .		0
207	Radiation-Based Medical Imaging Techniques: An Overview. , 2020, , 1-27.		0
208	Radiation-Based Medical Imaging Techniques: An Overview. , 2021, , 1145-1171.		0