

Richard Batley

List of Publications by Year in descending order

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Version: 2024-02-01

202
papers

21,874
citations

28274

55
h-index

8630

146
g-index

209
all docs

209
docs citations

209
times ranked

10822
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 716, 1-29.	4.1	6,386
2	The ATLAS Experiment at the CERN Large Hadron Collider. Journal of Instrumentation, 2008, 3, S08003-S08003.	1.2	1,752
3	The ATLAS Simulation Infrastructure. European Physical Journal C, 2010, 70, 823-874.	3.9	1,187
4	Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s}=7$ and 8 TeV with the ATLAS and CMS Experiments. Physical Review Letters, 2015, 114, 191803.	7.8	1,062
5	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	3.9	489
6	Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp collision data at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	473
7	Muon reconstruction performance of the ATLAS detector in proton-proton collision data at $\sqrt{s}=13$ TeV. European Physical Journal C, 2016, 76, 292.	3.9	453
8	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. European Physical Journal C, 2017, 77, 490.	3.9	325
9	Evidence for the spin-0 nature of the Higgs boson using ATLAS data. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 120-144.	4.1	307
10	Performance of pile-up mitigation techniques for jets in pp collisions at $\sqrt{s}=8$. European Physical Journal C, 2016, 76, 581.	3.9	298
11	Luminosity determination in pp collisions at $\sqrt{s}=8$ TeV using the ATLAS detector at the LHC. European Physical Journal C, 2016, 76, 653.	3.9	279
12	Measurements of the Higgs boson production and decay rates and coupling strengths using pp collision data at $\sqrt{s}=7$ and 8 TeV in the ATLAS experiment. European Physical Journal C, 2016, 76, 6.	3.9	274
13	Jet energy measurement and its systematic uncertainty in proton-proton collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 17.	3.9	268
14	Performance of the ATLAS Trigger System in 2010. European Physical Journal C, 2012, 72, 1.	3.9	259
15			

#	ARTICLE	IF	CITATIONS
19	Search for an additional, heavy Higgs boson in the $H \rightarrow ZZ$ decay channel at $\sqrt{s} = 8$ TeV in pp collision data with the ATLAS detector. European Physical Journal C, 2016, 76, 45.	3.9	197
20	Measurement of the jet radius and transverse momentum dependence of inclusive jet suppression in lead-lead collisions at $\sqrt{s_{NN}} = 2.76$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 716, 236-242.	2.76	195
21	Measurement of the Inelastic Proton-Proton Cross Section at $\sqrt{s} = 13$ TeV with the ATLAS Detector at the LHC. Physical Review Letters, 2016, 117, 182002.	7.8	185
22	Performance of missing transverse momentum reconstruction with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 903.	3.9	181
23	Study of the spin and parity of the Higgs boson in diboson decays with the ATLAS detector. European Physical Journal C, 2015, 75, 476.	3.9	174
24	Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 784, 173-191.	4.1	169
25	Measurement of the top quark-pair production cross section with ATLAS in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2011, 71, 1.	3.9	146
26	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	3.9	145
27	Precision measurement and interpretation of inclusive W^+W^- . European Physical Journal C, 2017, 77, 367.	3.9	145
28	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. European Physical Journal C, 2015, 75, 510.	3.9	138
29	Measurement of the $Z \rightarrow b\bar{b}$ decays and VH production with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 716, 236-242.	4.1	138
30	Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment. Physical Review Letters, 2019, 122, 231801.	7.8	133
31	Measurement of the $Z \rightarrow \tau\tau$ boson transverse momentum distribution in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	131
32	Search for Invisible Decays of a Higgs Boson Produced in Association with a Z Boson in ATLAS. Physical Review Letters, 2014, 112, .	7.8	130
33	ATLAS b-jet identification performance and efficiency measurement with $t\bar{t}$ events in pp collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	130
34	Electron and photon performance measurements with the ATLAS detector using the 2015-2017 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P12006-P12006.	1.2	124
35	Measurement of the inclusive isolated prompt photon cross section in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. Physical Review D, 2011, 83, 012001.	4.7	121
36	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector. European Physical Journal C, 2016, 76, 538.	3.9	115

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37	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	3.9	93
38	Search for the $b\bar{b}$ decay of the Standard Model Higgs boson in associated (W/Z)H production with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	89
39	Measurement of $W\Delta$ and Z-boson production cross sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 759, 601-621.	3.9	82
40	Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 1.	3.9	82
41	Search for dark matter at $\sqrt{s} = 13$ TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector. European Physical Journal C, 2017, 77, 393.	3.9	80
42	The barrel modules of the ATLAS semiconductor tracker. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 568, 642-671.	1.6	79
43	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton-proton collision data at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	77
44	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	3.9	75
45	Measurement of the inclusive and dijet cross-sections of b-jets in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	3.9	73
46	Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC. European Physical Journal C, 2017, 77, 332.	3.9	71
47	Identification and energy calibration of hadronically decaying tau leptons with the ATLAS experiment in pp collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2015, 75, 303.	3.9	70
48	ATLAS data quality operations and performance for 2015-2018 data-taking. Journal of Instrumentation, 2020, 15, P04003-P04003.	1.2	68
49	Evidence for the $H \rightarrow b\bar{b}$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	64
50	Jet energy scale and resolution measured in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	64
51	Measurement of the Higgs boson mass in the $H \rightarrow ZZ \rightarrow 4\ell$, $H \rightarrow ZZ \rightarrow 2\ell 2\mu$, and $H \rightarrow ZZ \rightarrow 4\mu$ channels with $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 784, 345-366.	3.9	63
52	Performance of the ATLAS muon triggers in Run 2. Journal of Instrumentation, 2020, 15, P09015-P09015.	1.2	62
53	Prompt and non-prompt J/ψ and $\psi(2S)$ suppression at high transverse momentum in $\sqrt{s} = 5.02$ TeV Pb+Pb collisions with the ATLAS experiment. European Physical Journal C, 2018, 78, 762.	3.9	61
54	A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 812, 135980.	4.1	61

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55	Search for direct top squark pair production in events with a Z boson, b -jets and missing transverse momentum in $\sqrt{s}=8$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2014, 74, 2883.	3.9	55
56	Search for pair production of Higgs bosons in the $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	55
57	Search for the Decay of the Higgs Boson to Charm Quarks with the ATLAS Experiment. Physical Review Letters, 2018, 120, 211802.	7.8	53
58	Observation of Electroweak Production of a Same-Sign W Boson Pair in Association with Two Jets in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	7.8	53
59	Performance of jet substructure techniques for large- R jets in proton-proton collisions at $\sqrt{s}=7$ TeV using the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	4.7	52
60	Measurement of the top quark mass in the $t\bar{t}$ channel from $t\bar{t}$ dilepton final states with ATLAS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 707, 459-477.	4.1	52
61	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. European Physical Journal C, 2016, 76, 295.	3.9	50
62	Search for direct top squark pair production in final states with two leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 898.	3.9	50
63	Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s}=13$ TeV pp collision data collected by the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	49
64	Test of CP invariance in vector-boson fusion production of the Higgs boson using the Optimal Observable method in the ditau decay channel with the ATLAS detector. European Physical Journal C, 2016, 76, 658.	3.9	48
65	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fb^{-1} of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	48
66	Measurement of the Higgs boson coupling properties in the $H \rightarrow Z\bar{Z}^* \rightarrow \tau^+\tau^- 4\mu$ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	46
67	Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run 2 data collected in 2015 and 2016. European Physical Journal C, 2019, 79, 1.	3.9	46
68	Measurements of gluon fusion and vector-boson fusion Higgs boson production cross-sections in the $H \rightarrow \tau^+\tau^-$ decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 508-529.	4.1	46
69	Search for charged Higgs bosons decaying into a top quark and a bottom quark at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	46
70	Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s}=13$ TeV in dilepton final states with ATLAS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 707, 459-477.	4.1	46
71	Single hadron response measurement and calorimeter jet energy scale uncertainty with the ATLAS detector at the LHC. European Physical Journal C, 2013, 73, 1.	3.9	45
72	Search for supersymmetry at $\sqrt{s}=8$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	45

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73	Constraints on off-shell Higgs boson production and the Higgs boson total width in $ZZ\gamma\gamma$, $ZZ\gamma\gamma$, and $ZZ\gamma\gamma$ final states with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 223-244.	4.1	43
74	Combined measurement of differential and total cross sections in the $H\gamma\gamma$ and the $H\gamma\gamma$ decay channels at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 114-133.	4.1	42
75	Performance of top-quark and W -boson tagging with ATLAS in Run 2 of the LHC. European Physical Journal C, 2019, 79, 1.	3.9	42
76	Higgs boson production cross-section measurements and their EFT interpretation in the 4ℓ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	41
77	Study of the $B_c \rightarrow J/\psi D_s + B_c + \gamma$ and $B_c \rightarrow J/\psi D_s + \gamma$ decays with the ATLAS detector. European Physical Journal C, 2016, 76, 4.	3.9	40
78	Measurements of b-jet tagging efficiency with the ATLAS detector using $t\bar{t}$ events at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	40
79	Search for heavy resonances decaying into a pair of Z bosons in the $e^+e^- \rightarrow e^+e^- Z Z$ and $e^+e^- \rightarrow e^+e^- \gamma\gamma$ final states using 139 fb $^{-1}$ of proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	40
80	Search for invisible decays of the Higgs boson produced in association with a hadronically decaying vector boson in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 337.	3.9	39
81	Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in pp collision data at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 87.	3.9	39
82	Observation of electroweak $W\gamma$ boson pair production in association with two jets in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 793, 469-492.	4.1	38
83	Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	38
84	Electron and photon energy calibration with the ATLAS detector using 2015-2016 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P03017-P03017.	1.2	37
85	Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fb $^{-1}$ of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	37
86	Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	36
87	Search for a scalar partner of the top quark in the all-hadronic $t\bar{t}$ plus missing transverse momentum final state at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	36
88	Measurement of the inclusive jet cross-section in proton-proton collisions at $\sqrt{s}=7$ TeV using 4.5 fb $^{-1}$ of data with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	35
89	Measurements of top-quark pair differential and double-differential cross-sections in the 4ℓ channel with pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	34
90	Search for direct production of electroweakinos in final states with one lepton, missing transverse momentum and a Higgs boson decaying into two b-jets in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	34

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91	Measurement of the Soft Drop Jet Mass in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 793, 499-519.	7.8	33
92	Search for invisible Higgs boson decays in vector boson fusion at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 793, 499-519.	3.9	32
93	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1.	4.7	31
94	Measurement of inclusive and differential cross sections in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
95	Search for new phenomena in events with same-charge leptons and b -jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	30
96	Evidence for $t\bar{t}$ production in the multilepton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	30
97	A measurement of the calorimeter response to single hadrons and determination of the jet energy scale uncertainty using LHC Run-1 pp -collision data with the ATLAS detector. European Physical Journal C, 2017, 77, 26.	3.9	29
98	Study of the material of the ATLAS inner detector for Run 2 of the LHC. Journal of Instrumentation, 2017, 12, P12009-P12009.	1.2	29
99	Search for heavy diboson resonances in semileptonic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	29
100	Measurement of the Drell-Yan triple-differential cross section in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	28
101	In situ calibration of large-radius jet energy and mass in 13 TeV proton-proton collisions with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	28
102	Search for chargino-neutralino pair production in final states with three leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	28
103	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a \bar{l}_ν -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
104	Measurements of electroweak W^+W^- production and constraints on anomalous gauge couplings with the ATLAS detector. European Physical Journal C, 2017, 77, 474.	3.9	26
105	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell\bar{\ell}bb$ and $\ell\bar{\ell}WW$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	26
106	Measurement of the cross-section and charge asymmetry of W bosons produced in proton-proton collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	24
107	Measurement of fiducial and differential W^+W^- production cross-sections at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	24
108	Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	24

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109	Measurement of the inclusive jet cross-sections in proton-proton collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	23
110	Search for doubly and singly charged Higgs bosons decaying into vector bosons in multi-lepton final states with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	23
111	AtlFast3: The Next Generation of Fast Simulation in ATLAS. <i>Computing and Software for Big Science</i> , 2022, 6, 1.	2.9	23
112	Measurement of the electroweak production of dijets in association with a Z-boson and distributions sensitive to vector boson fusion in proton-proton collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	4.7	22
113	Measurements of top-quark pair spin correlations in the $\mu\mu$ channel at $\sqrt{s} = 13$ TeV using pp collisions in the ATLAS detector. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	22
114	Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	22
115	The performance of the jet trigger for the ATLAS detector during 2011 data taking. <i>European Physical Journal C</i> , 2016, 76, 526.	3.9	21
116	Search for the Standard Model Higgs boson decaying into $b\bar{b}$ produced in association with top quarks decaying hadronically in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	21
117	Measurement of k_T splitting scales in $W\bar{a}, \gamma/2$ events at $\sqrt{s} = 7$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2013, 73, 2432.	3.9	19
118	Measurement of the production cross-section of a single top quark in association with a Z boson in proton-proton collisions at 13 TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018, 780, 557-577.	4.1	19
119	Search for squarks and gluinos in final states with same-sign leptons and jets using 139 fb ⁻¹ of data collected with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	19
120	Measurement of light-by-light scattering and search for axion-like particles with 2.2 nb ⁻¹ of Pb+Pb data with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	19
121	Measurements of inclusive and differential fiducial cross-sections of $t\bar{t}$ production with additional heavy-flavour jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	18
122	Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	18
123	Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2021, 81, 1.	3.9	18
124	Search for new phenomena in final states with b-jets and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	18
125	Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	17
126	Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	17

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127	Search for the $HH \rightarrow b\bar{b}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	17
128	Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	17
129	Measurement of differential cross sections and W^+/W^0 cross-section ratios for W boson production in association with jets at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	16
130	Measurement of the cross-section for electroweak production of dijets in association with a Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 775, 206-228.	4.7	16
131	Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions. European Physical Journal C, 2021, 81, 1.	3.9	15
132	Test of the universality of \tilde{l}_τ and \tilde{l}_μ lepton couplings in W-boson decays with the ATLAS detector. Nature Physics, 2021, 17, 813-818.	16.7	15
133	Determination of jet calibration and energy resolution in proton-proton collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	15
134	Measurement of VH , $H \rightarrow b\bar{b}$ production as a function of the vector-boson transverse momentum in 13 TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
135	Search for new phenomena with top quark pairs in final states with one lepton, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	14
136	Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 1.	3.9	14
137	Search for New Phenomena in Final States with Two Leptons and One or No b-Tagged Jets at $\sqrt{s} = 13$ TeV Using the ATLAS Detector. Physical Review Letters, 2021, 127, 141801.	7.8	14
138	Measurements of top-quark pair single- and double-differential cross-sections in the all-hadronic channel in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	14
139	Search for $t\bar{t}$ resonances in fully hadronic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	14
140	Measurement of the c-jet mistagging efficiency in $t\bar{t}$ events using pp collision data at $\sqrt{s} = 13$ TeV collected with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	14
141	Measurement of the CP-violating phase ϕ_{s^*} in $B_{s^*} \rightarrow J/\psi \phi$ decays in ATLAS at 13 TeV. European Physical Journal C, 2021, 81, .	3.9	13
142	Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	13
143	Search for long-lived charginos based on a disappearing-track signature using 136 fb $^{-1}$ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	13
144	Measurement of the four-lepton invariant mass spectrum in 13 TeV proton-proton collisions with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	12

#	ARTICLE	IF	CITATIONS
145	Observation of the associated production of a top quark and a Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
146	Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton-proton collisions at ATLAS. European Physical Journal C, 2021, 81, 1.	3.9	12
147	Search for supersymmetry in events with four or more charged leptons in 139 fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
148	Measurements of the inclusive and differential production cross sections of a top-quark-antiquark pair in association with a Z boson at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	12
149	Search for dark matter in events with missing transverse momentum and a Higgs boson decaying into two photons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
150	Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1.	3.9	12
151	Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s} = 7, 8$ and 13 TeV. European Physical Journal C, 2022, 82, 1.	3.9	12
152	Measurements of the production cross-section for a Z boson in association with b-jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	11
153	Two-particle azimuthal correlations in photonuclear ultraperipheral collisions at 5.02 TeV with ATLAS. Physical Review C, 2021, 104, .	2.9	11
154	Exclusive dimuon production in ultraperipheral collisions at $\sqrt{s} = 5.02$ TeV with ATLAS. Physical Review C, 2021, 104, .	2.9	11
155	A measurement of material in the ATLAS tracker using secondary hadronic interactions in $7 \text{ TeV} < i > \text{pp} < /i >$ collisions. Journal of Instrumentation, 2016, 11, P11020-P11020.	1.2	10
156	Determination of the parton distribution functions of the proton from ATLAS measurements of differential W_{\pm} and Z boson production in association with jets. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
157	Performance of the ATLAS Transition Radiation Tracker in Run 1 of the LHC: tracker properties. Journal of Instrumentation, 2017, 12, P05002-P05002.	1.2	10
158	Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
159	Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with 139 fb^{-1} of pp collision data at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	10
160	Search for dark matter produced in association with a Standard Model Higgs boson decaying into b-quarks using the full Run 2 dataset from the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
161	Combinations of single-top-quark production cross-section measurements and $ f_{LVtb} $ determinations at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS experiments. Journal of High Energy Physics, 2019, 2019, 1.	4.7	9
162	Measurement of the inclusive cross-section for the production of jets in association with a Z boson in proton-proton collisions at 8 TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	9

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163	Search for dark matter produced in association with a single top quark in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	9
164	Evidence for electroweak production of two jets in association with a Z^0 pair in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 81, 1.	4.1	9
165	Search for direct top squark pair production in events with a Higgs or Z boson, and missing transverse momentum in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	8
166	Measurements of $W+W^{\pm}+1$ jet production cross-sections in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
167	Search for charged-lepton-flavour violation in Z-boson decays with the ATLAS detector. Nature Physics, 2021, 17, 819-825.	16.7	8
168	Measurements of differential cross-sections in four-lepton events in 13 TeV proton-proton collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
169	Reconstruction and identification of boosted $d\bar{t}$ systems in a search for Higgs boson pairs using 13 TeV proton-proton collision data in ATLAS. Journal of High Energy Physics, 2020, 2020, 1.	4.7	8
170	Observation of electroweak production of two jets in association with an isolated photon and missing transverse momentum, and search for a Higgs boson decaying into invisible particles at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2022, 82, 1.	3.9	8
171	Search for dark matter candidates at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 81, 1.	4.1	8
172	Search for Lepton-Flavor Violation in $Z \rightarrow \tau^+\tau^-$ Boson Decays with the ATLAS Detector. Physical Review Letters, 2021, 127, 271801.	7.8	8
173	Combination of inclusive and differential $\overline{\text{t}}\text{t}$ charge asymmetry measurements using ATLAS and CMS data at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	7
174	Search for R-parity-violating supersymmetry in a final state containing leptons and many jets with the ATLAS experiment using $\sqrt{s}=13$ TeV proton-proton collision data. European Physical Journal C, 2021, 81, 1.	3.9	7
175	Configuration and performance of the ATLAS b-jet triggers in Run 2. European Physical Journal C, 2021, 81, 1.	3.9	7
176	Search for flavour-changing neutral-current interactions of a top quark and a gluon in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	7
177	Measurement of the ratio of cross sections for inclusive isolated-photon production in pp collisions at $\sqrt{s}=13$ and 8 TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	6
178	Search for Higgs boson production in association with a high-energy photon via vector-boson fusion with decay into bottom quark pairs at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	6
179	Performance of the ATLAS RPC detector and Level-1 muon barrel trigger at $\sqrt{s}=13$ TeV. Journal of Instrumentation, 2021, 16, P07029.	1.2	6
180	Performance of the ATLAS Level-1 topological trigger in Run 2. European Physical Journal C, 2022, 82, 1.	3.9	6

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181	A search for the decays of stopped long-lived particles at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	5
182	The ATLAS Fast Tracker system. Journal of Instrumentation, 2021, 16, P07006.	1.2	5
183	Search for phenomena beyond the Standard Model in events with large b-jet multiplicity using the ATLAS detector at the LHC. European Physical Journal C, 2021, 81, 1.	3.9	5
184	Emulating the impact of additional proton-proton interactions in the ATLAS simulation by presampling sets of inelastic Monte Carlo events. Computing and Software for Big Science, 2022, 6, 1.	2.9	5
185	The ATLAS inner detector trigger performance in pp collisions at $\sqrt{s} = 13$ TeV during LHC Run 2. European Physical Journal C, 2022, 82, 1.	3.9	5
186	Performance of the upgraded PreProcessor of the ATLAS Level-1 Calorimeter Trigger. Journal of Instrumentation, 2020, 15, P11016-P11016.	1.2	4
187	Measurement of hadronic event shapes in high-pT multijet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
188	Search for top squarks in events with a Higgs or Z boson using 139 fb^{-1} of pp collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	4
189	Measurement of the energy response of the ATLAS calorimeter to charged pions from $W^{\pm} \rightarrow u^{\pm} \bar{u}^{\pm} \pi^{\pm} u_{\text{had}} u_{\text{had}}$ events in Run 2 data. European Physical Journal C, 2022, 82, 1.	3.9	4
190	Measurement of the production cross section of pairs of isolated photons in pp collisions at 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
191	Search for exotic decays of the Higgs boson into long-lived particles in pp collisions at $\sqrt{s} = 13$ TeV using displaced vertices in the ATLAS inner detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
192	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $\sqrt{s} = 8, \sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	3
193	Measurements of sensor radiation damage in the ATLAS inner detector using leakage currents. Journal of Instrumentation, 2021, 16, P08025.	1.2	3
194	Measurement of the inclusive jet cross-section in proton-proton collisions at $(\sqrt{s} = 7)$ TeV using 4.5 fb^{-1} of data with the ATLAS detector. , 2015, 2015, 1.		3
195	Study of the spin and parity of the Higgs boson in diboson decays with the ATLAS detector. , 2015, 75, 1.		3
196	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. , 2015, 75, 1.		3
197	Measurement of b-quark fragmentation properties in jets using the decay $B^{\pm} \rightarrow J/\psi K^{\pm}$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	3
198	Two-particle Bose-Einstein correlations in $\{pp\}$ collisions at $\sqrt{s} = 13$ TeV measured with the ATLAS detector at the LHC. European Physical Journal C, 2022, 82, .	3.9	3

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199	Search for exotic decays of the Higgs boson into $b\bar{b}$ and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
200	Measurement of the energy asymmetry in $t\bar{t}$ production at $\sqrt{s} = 13$ TeV with the ATLAS experiment and interpretation in the SMEFT framework. European Physical Journal C, 2022, 82, .	3.9	2
201	Operation and performance of the ATLAS semiconductor tracker in LHC Run 2. Journal of Instrumentation, 2022, 17, P01013.	1.2	1
202	A search for an unexpected asymmetry in the production of e^+e^- and e^+e^- pairs in proton-proton collisions recorded by the ATLAS detector at $\sqrt{s} = 13$ TeV. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 830, 137106.	4.1	1