

# Heather Gray

## List of Publications by Year in descending order

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Version: 2024-02-01

290  
papers

16,728  
citations

18436

62  
h-index

19136

118  
g-index

305  
all docs

305  
docs citations

305  
times ranked

9113  
citing authors

#	ARTICLE	IF	CITATIONS
1	The ATLAS Simulation Infrastructure. European Physical Journal C, 2010, 70, 823-874.	1.4	1,187
2	ATLAS pixel detector electronics and sensors. Journal of Instrumentation, 2008, 3, P07007-P07007.	0.5	494
3	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	1.4	489
4	Muon reconstruction performance of the ATLAS detector in proton-proton collision data at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2016, 76, 292.	1.4	453
5	FCC-ee: The Lepton Collider. European Physical Journal: Special Topics, 2019, 228, 261-623.	1.2	424
6	FCC-hh: The Hadron Collider. European Physical Journal: Special Topics, 2019, 228, 755-1107.	1.2	367
7	FCC Physics Opportunities. European Physical Journal C, 2019, 79, 1.	1.4	346
8	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. European Physical Journal C, 2017, 77, 490.	1.4	325
9	Performance of pile-up mitigation techniques for jets in pp collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2016, 76, 581.	1.4	298
10	Luminosity determination in pp collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector at the LHC. European Physical Journal C, 2016, 76, 653.	1.4	279
11	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.	1.4	274
12	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.	1.4	268
13	Performance of the ATLAS Trigger System in 2010. European Physical Journal C, 2012, 72, 1.	1.4	259
14	Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 299.	1.4	238
15			

#	ARTICLE	IF	CITATIONS
19	Electron reconstruction and identification efficiency measurements with the ATLAS detector using the 2011 LHC proton-proton collision data. European Physical Journal C, 2014, 74, 2941.	1.4	204
20	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.	1.4	197
21	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.	1.4	181
22	Study of the spin and parity of the Higgs boson in diboson decays with the ATLAS detector. European Physical Journal C, 2015, 75, 476.	1.4	174
23	Electron and photon energy calibration with the ATLAS detector using LHC Run 1 data. European Physical Journal C, 2014, 74, 1.	1.4	172
24	Search for new high-mass phenomena in the dilepton final state using 36 fb <sup>-1</sup> of proton-proton collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	168
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.	1.4	146
26	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	1.4	145
27	Precision measurement and interpretation of inclusive $W^+W^-$ , $W^+W^+$ . European Physical Journal C, 2017, 77, 367.	1.4	145
28	Measurement of the $t\bar{t}$ production cross-section using $e^+e^-$ events with $b$ -tagged jets in $pp$ collisions at $\sqrt{s} = 7$ and 8 TeV with the ATLAS detector. European Physical Journal C, 2014, 74, 3109.	1.4	143
29	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. European Physical Journal C, 2015, 75, 510.	1.4	138
30	Search for dark matter and other new phenomena in events with an energetic jet and large missing transverse momentum using the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	136
31	Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 199.	1.4	132
32	Measurement of the $Z/\gamma^*$ boson transverse momentum distribution in $pp$ collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	131
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.	1.4	130
34	Search for electroweak production of supersymmetric particles in final states with two or three leptons at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 995.	1.4	125
35	Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV $pp$ collisions using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	124
36	Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in 36 fb <sup>-1</sup> of $pp$ collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	116

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37	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s}=8, \sqrt{s}=8$ TeV using the ATLAS detector. European Physical Journal C, 2016, 76, 538.	1.4	115
38	Measurement of $t\bar{t}$ production with a veto on additional central jet activity in pp collisions at $\sqrt{s}=7$ TeV using the ATLAS detector. European Physical Journal C, 2012, 72, 2043.	1.4	109
39	Search for heavy resonances decaying into WW in the $e^+e^- \rightarrow e^+e^- \gamma \gamma$ final state in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 24.	1.4	108
40	HE-LHC: The High-Energy Large Hadron Collider. European Physical Journal: Special Topics, 2019, 228, 1109-1382.	1.2	108
41	Search for heavy ZZ resonances in the $e^+e^- \rightarrow e^+e^- \gamma \gamma$ , $e^+e^- \rightarrow e^+e^- \gamma \gamma$ - $\gamma \gamma$ , $e^+e^- \rightarrow e^+e^- \gamma \gamma$ - $\gamma \gamma$ and $e^+e^- \rightarrow e^+e^- \gamma \gamma$ final states using proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 293.	1.4	101
42	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	1.4	93
43	Search for the $b\bar{b} \rightarrow b\bar{b}$ 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.	1.6	89
44	Electron efficiency measurements with the ATLAS detector using 2012 LHC proton-proton collision data. European Physical Journal C, 2017, 77, 195.	1.4	87
45	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.	1.4	82
46	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.	1.4	80
47	Search for production of WW/WZ resonances decaying to a lepton, neutrino and jets in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 209.	1.4	79
48	Search for heavy particles decaying into top-quark pairs using lepton-plus-jets events in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 565.	1.4	79
49	Search for dark matter in events with heavy quarks and missing transverse momentum in pp collisions with the ATLAS detector. European Physical Journal C, 2015, 75, 92.	1.4	77
50	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.	1.4	77
51	Angular analysis of $B^0 \rightarrow D^+ K^+ \pi^-$ decays in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	76
52	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	1.4	75
53	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.	1.4	73
54	Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run-1 data. European Physical Journal C, 2016, 76, 666.	1.4	73

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55	Search for squarks and gluinos in final states with jets and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 392.	1.4	73
56	Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC. European Physical Journal C, 2017, 77, 332.	1.4	71
57	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.	1.4	70
58	Search for new resonances in mass distributions of jet pairs using 139 fb <sup>-1</sup> of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	68
59	Search for long-lived charginos based on a disappearing-track signature in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	67
60	A search for pair-produced resonances in four-jet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 250.	1.4	66
61	Evidence for the H → b b̄ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	64
62	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.	1.4	64
63	Performance of the ATLAS muon trigger in pp collisions at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2015, 75, 120.	1.4	62
64	Identification of boosted, hadronically decaying W bosons and comparisons with ATLAS data taken at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2016, 76, 154.	1.4	62
65	Performance of algorithms that reconstruct missing transverse momentum in $\sqrt{s} = 8$ TeV proton-proton collisions in the ATLAS detector. European Physical Journal C, 2017, 77, 241.	1.4	61
66	Prompt and non-prompt J/ψ and ψ(2S) suppression at high transverse momentum in 5.02 TeV Pb+Pb collisions with the ATLAS experiment. European Physical Journal C, 2018, 78, 762.	1.4	61
67	Search for doubly charged scalar bosons decaying into same-sign W boson pairs with the ATLAS detector. European Physical Journal C, 2019, 79, 58.	1.4	61
68	Search for dark matter produced in association with bottom or top quarks in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 18.	1.4	60
69	Measurement of longitudinal flow decorrelations in Pb+Pb collisions at $\sqrt{s_{NN}} = 2.76$ and 5.0. European Physical Journal C, 2018, 78, 142.	1.4	59
70	Search for charged Higgs bosons decaying via H± → t̄, ±̄, in the t̄, ±̄+jets and t̄, ±̄+lepton final states with 36 fb <sup>-1</sup> of pp collision data recorded at $\sqrt{s} = 13$ TeV with the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	1.6	59
71	Search for charged Higgs bosons decaying into top and bottom quarks at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	56
72	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.	1.4	55

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73	Search for pair production of Higgs bosons in the $b\bar{b}$ final state using proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	55
74	Measurements of fiducial cross-sections for $t\bar{t}\hat{A}^-$ production with one or two additional b-jets in pp collisions at $\sqrt{s}=8$ TeV using the ATLAS detector. <i>European Physical Journal C</i> , 2016, 76, 11.	1.4	54
75	Search for Higgs boson pair production in the $\gamma\gamma WW^* \rightarrow W W^*$ channel using pp collision data recorded at $\sqrt{s}=13$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2018, 78, 1007.	1.4	53
76	Performance of jet substructure techniques for large-R jets in proton-proton collisions at $\sqrt{s}=7$ TeV using the ATLAS detector. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	1.6	52
77	Measurement of the top quark mass in the $t\bar{t} \rightarrow \text{lepton+jets}$ and $t\bar{t} \rightarrow \text{dilepton}$ channels using $\sqrt{s}=7$ TeV ATLAS data. <i>European Physical Journal C</i> , 2015, 75, 330.	1.4	52
78	Search for the direct production of charginos and neutralinos in final states with tau leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2018, 78, 154.	1.4	52
79	Measurement of the azimuthal anisotropy of charged particles produced in $\sqrt{s_{NN}}=5.02$ TeV Pb+Pb collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2018, 78, 997.	1.4	51
80	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. <i>European Physical Journal C</i> , 2016, 76, 295.	1.4	50
81	Search for direct top squark pair production in final states with two leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2017, 77, 898.	1.4	50
82	Search for a new heavy gauge-boson resonance decaying into a lepton and missing transverse momentum in $36 \text{ fb}^{-1}$ of pp collisions at. <i>European Physical Journal C</i> , 2018, 78, 401.	1.4	50
83	Search for heavy neutral leptons in decays of W bosons produced in 13 TeV pp collisions using prompt and displaced signatures with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	50
84	Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s}=13$ TeV pp collision data collected by the ATLAS detector. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	49
85	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. <i>European Physical Journal C</i> , 2016, 76, 658.	1.4	48
86	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using $36 \text{ fb}^{-1}$ of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	48
87	Measurements of the production cross section of a $Z$ boson in association with jets in pp collisions at $\sqrt{s}=13$ TeV. <i>European Physical Journal C</i> , 2017, 77, 361.	1.4	47
88	Measurement of the top quark mass in the $t\bar{t}\hat{A}^-$ channel. <i>European Physical Journal C</i> , 2019, 79, 1.	1.4	47
89	Measurement of the Higgs boson coupling properties in the $H \rightarrow Z\hat{A}^- \rightarrow 4\hat{a}$ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	46
90	Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run 2 data collected in 2015 and 2016. <i>European Physical Journal C</i> , 2019, 79, 1.	1.4	46

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91	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.	1.6	46
92	Search for pair-produced massive coloured scalars in four-jet final states with the ATLAS detector in proton-proton collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2013, 73, 1.	1.4	45
93	Single hadron response measurement and calorimeter jet energy scale uncertainty with the ATLAS detector at the LHC. European Physical Journal C, 2013, 73, 1.	1.4	45
94	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.	1.6	45
95	Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at $s = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	45
96	Performance of top-quark and $W$ -boson tagging with ATLAS in Run 2 of the LHC. European Physical Journal C, 2019, 79, 1.	1.4	42
97	Measurement of $W^{\pm}Z$ production cross sections and gauge boson polarisation in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	41
98	Higgs boson production cross-section measurements and their EFT interpretation in the $4\ell$ decay channel at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	41
99	Differential top-antitop cross-section measurements as a function of observables constructed from final-state particles using pp collisions at $s = 7$ TeV in the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	40
100	Search for heavy resonances decaying into a $W$ or $Z$ boson and a Higgs boson in final states with leptons and b-jets in $36 \text{ fb}^{-1}$ of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	40
101	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.	1.6	40
102	Search for heavy resonances decaying into a pair of $Z$ bosons in the $e^+e^- \rightarrow e^+e^- Z Z$ and $e^+e^- \rightarrow e^+e^- u\bar{u}$ final states using $139 \text{ fb}^{-1}$ of proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	40
103	Search for heavy Majorana or Dirac neutrinos and right-handed $W$ gauge bosons in final states with two charged leptons and two jets at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	39
104	Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in $s = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	38
105	Search for Higgs boson pair production in the $\gamma\gamma b\bar{b}$ final state with 13 TeV pp collision data collected by the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	1.6	38
106	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.	1.4	38
107	Search for bottom squark pair production in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 547.	1.4	37
108	Search for supersymmetry in final states with missing transverse momentum and multiple b-jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	37



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109	Electron and photon energy calibration with the ATLAS detector using 2015â€“2016 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P03017-P03017.	0.5	37
110	Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fb <sup>-1</sup> of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	37
111	Search for pair production of heavy vector-like quarks decaying to high-p T W bosons and b quarks in the lepton-plus-jets final state in pp collisions at $s = 13 \sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	36
112	Measurement of flow harmonics correlations with mean transverse momentum in leadâ€“lead and protonâ€“lead collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	36
113	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.	1.6	36
114	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.	1.4	36
115	Measurement of the inclusive jet cross-section in proton-proton collisions at $s = 7 \sqrt{s} = 7$ TeV using 4.5 fb <sup>-1</sup> of data with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	35
116	Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector. European Physical Journal C, 2017, 77, 580.	1.4	35
117	Measurements of top-quark pair differential and double-differential cross-sections in the $t\bar{t} + \text{jets}$ channel with pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	34
118	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.	1.4	34
119	Search for pair production of up-type vector-like quarks and for four-top-quark events in final states with multiple b-jets with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	33
120	Determination of the strong coupling constant $\alpha_{\mathrm{s}}(\mu)$ from transverse energyâ€“energy correlations in multijet events at $\sqrt{s} = 8$ TeV. European Physical Journal C, 2017, 77, 872.	1.4	32
121	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the $H \rightarrow b\bar{b}$ decay channel at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1.	1.4	32
122	Measurement of inclusive and differential cross sections in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel in pp collisions at $s = 13 \sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
123	Search for supersymmetry in final states with two same-sign or three leptons and jets using 36 fb <sup>-1</sup> of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
124	Search for W W/W Z resonance production in $\ell\ell q\bar{q}$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	31
125	Search for Higgs boson decays to beyond-the-Standard-Model light bosons in four-lepton events with the ATLAS detector at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	31
126	Measurement of the $t\bar{t} + \text{jets}$ production cross-section as a function of jet multiplicity and jet transverse momentum in 7 TeV proton-proton collisions with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	1.6	30



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127	Searches for the $Z\tau^3$ decay mode of the Higgs boson and for new high-mass resonances in pp collisions at $s = 13 \sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	30
128	Study of $WW\gamma W\tau^3$ and $WZ\gamma WZ$ . European Physical Journal C, 2017, 77, 646.	1.4	30
129	Search for new phenomena in events with same-charge leptons and b-jets in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	30
130	Searches for third-generation scalar leptoquarks in $\sqrt{s} = 13 \text{ TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	30
131	Evidence for $t\bar{t}$ production in the multilepton final state in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	30
132	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.	1.4	29
133	Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	29
134	Searches for heavy ZZ and ZW resonances in the $\tau^+\tau^-$ , $q\bar{q}$ and $\tau^+\tau^-q\bar{q}$ final states in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	29
135	A Pattern Recognition Algorithm for Quantum Annealers. Computing and Software for Big Science, 2020, 4, 1.	1.3	29
136	Search for heavy diboson resonances in semileptonic final states in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	29
137	Measurement of lepton differential distributions and the top quark mass in $t\bar{t}$ . European Physical Journal C, 2017, 77, 804.	1.4	28
138	Measurement of $WW/WZ \rightarrow \ell u q \bar{q}'$ and $WW/WZ \rightarrow \ell^+\ell^- \tau^+\tau^- q \bar{q}$ production with the hadronically decaying boson reconstructed as one or two jets in pp collisions at $\sqrt{s} = 8 \text{ TeV}$ with ATLAS, and constraints on anomalous gauge couplings. European Physical Journal C, 2017, 77, 563.	1.4	28
139	Measurement of the Drell-Yan triple-differential cross section in pp collisions at $s = 8 \sqrt{s} = 8 \text{ TeV}$ . Journal of High Energy Physics, 2017, 2017, 1.	1.6	28
140	Search for the Higgs boson produced in association with a vector boson and decaying into two spin-zero particles in the $H \rightarrow a a \rightarrow 4b$ channel in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	28
141	Search for long-lived neutral particles in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ that decay into displaced hadronic jets in the ATLAS calorimeter. European Physical Journal C, 2019, 79, 1.	1.4	28
142	In situ calibration of large-radius jet energy and mass in $13 \text{ TeV}$ proton-proton collisions with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	28
143	Fluctuations of anisotropic flow in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	28
144	Measurement of the transverse momentum distribution of Drell-Yan lepton pairs in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	28

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146	Search for new phenomena using the invariant mass distribution of same-flavour opposite-sign dilepton pairs in events with missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 625.	1.4	27
147	Search for single production of vector-like quarks decaying into $Wb$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	27
148	Measurement of the top-quark mass in $t\bar{t} + 1$ -jet events collected with the ATLAS detector in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	27
149	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a $\bar{\nu}_\tau$ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	27
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156	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.	1.4	24
157	Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	24
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160	The Tracking Machine Learning Challenge: Accuracy Phase. The Springer Series on Challenges in Machine Learning, 2020, , 231-264.	10.4	23
161	AtlFast3: The Next Generation of Fast Simulation in ATLAS. Computing and Software for Big Science, 2022, 6, 1.	1.3	23
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166	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. Journal of High Energy Physics, 2021, 2021, 1.	1.6	22
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169	Search for Higgs boson pair production in the $WW^{(*)}WW^{(*)}$ decay channel using ATLAS data recorded at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	1.6	21
170	Identification of boosted Higgs bosons decaying into b-quark pairs with the ATLAS detector at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, .	1.4	21
171	Search for light long-lived neutral particles produced in pp collisions at $\sqrt{s}=13$ TeV and decaying into collimated leptons or light hadrons with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	21
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175	Addendum to "Measurement of the $t\bar{t}\tau^+\tau^-$ production cross-section using $e^+e^-$ events with b-tagged jets in pp collisions at $\sqrt{s}=7$ and $8$ TeV with the ATLAS detector". European Physical Journal C, 2016, 76, 1.	1.4	19
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179	Search for squarks and gluinos in final states with same-sign leptons and jets using $139 \text{ fb}^{-1}$ of data collected with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	19
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182	Search for top quark decays $t \rightarrow qH$ , with $H \rightarrow \tau\tau$ , in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	18
183	Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	18
184	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. European Physical Journal C, 2021, 81, 1.	1.4	18
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187	Measurement of the cross-section for producing a W boson in association with a single top quark in pp collisions at $\sqrt{s} = 13$ TeV with ATLAS. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
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189	Search for flavour-changing neutral current top-quark decays $t \rightarrow qZ$ in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
190	Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
191	Measurements of W and Z boson production in pp collisions at $\sqrt{s} = 5.02$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	17
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195	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.	1.4	17
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208	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.	1.4	14
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219	Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton-proton collisions at ATLAS. <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	12
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221	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. <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	12
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238	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.	1.4	9
239	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.	1.6	8
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257	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.	1.6	6
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285	Quantum Computing Applications in Future Colliders. <i>Frontiers in Physics</i> , 2022, 10, .	1.0	3
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289	Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton-proton collisions at $\sqrt{s}=13$ TeV. , 2018, 78, 1.		1
290	Alignment of the ATLAS inner detector tracking system. Journal of Instrumentation, 2009, 4, P03018-P03018.	0.5	0