

Bobby Acharya

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6505636/bobby-acharya-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

192
papers

14,671
citations

42
h-index

120
g-index

204
ext. papers

17,045
ext. citations

4.6
avg. IF

2.58
L-index

#	Paper	IF	Citations
192	Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012 , 716, 1-29	4.2	5271
191	The ATLAS Experiment at the CERN Large Hadron Collider. <i>Journal of Instrumentation</i> , 2008 , 3, S08003-S08003	1273	
190	The ATLAS Simulation Infrastructure. <i>European Physical Journal C</i> , 2010 , 70, 823-874	4.2	817
189	Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s}=7$ and 8 TeV with the ATLAS and CMS Experiments. <i>Physical Review Letters</i> , 2015 , 114, 191803	7.4	709
188	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. <i>Journal of High Energy Physics</i> , 2016 , 2016, 1	5.4	364
187	Performance of the ATLAS trigger system in 2015. <i>European Physical Journal C</i> , 2017 , 77, 317	4.2	272
186	Evidence for the spin-0 nature of the Higgs boson using ATLAS data. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013 , 726, 120-144	4.2	267
185	Muon reconstruction performance of the ATLAS detector in proton-proton collision data at $\sqrt{s}=13$ TeV. <i>European Physical Journal C</i> , 2016 , 76, 292	4.2	263
184	Performance of the ATLAS Trigger System in 2010. <i>European Physical Journal C</i> , 2012 , 72, 1	4.2	232
183	Jet energy measurement with the ATLAS detector in proton-proton collisions at ($\sqrt{s}=7$ TeV). <i>European Physical Journal C</i> , 2013 , 73, 1	4.2	209
182	Measurement of the pseudorapidity and transverse momentum dependence of the elliptic flow of charged particles in lead-lead collisions at $\sqrt{s_{NN}}=2.76$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012 , 707, 330-348	4.2	200
181	Jet energy measurement and its systematic uncertainty in proton-proton collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2015 , 75, 17	4.2	194
180	Luminosity determination in collisions at $\sqrt{s}=8$ TeV using the ATLAS detector at the LHC. <i>European Physical Journal C</i> , 2016 , 76, 653	4.2	188
179	Measurements of the Higgs boson production and decay rates and coupling strengths using collision data at $\sqrt{s}=7$ and 8 TeV in the ATLAS experiment. <i>European Physical Journal C</i> , 2016 , 76, 6	4.2	185
178	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. <i>European Physical Journal C</i> , 2017 , 77, 490	4.2	177
177	Measurement of the muon reconstruction performance of the ATLAS detector using 2011 and 2012 LHC proton-proton collision data. <i>European Physical Journal C</i> , 2014 , 74, 3130	4.2	166
176	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. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013 , 719, 220-241	4.2	165

175	Jet energy resolution in proton-proton collisions at [Formula: see text] recorded in 2010 with the ATLAS detector. <i>European Physical Journal C</i> , 2013 , 73, 2306	4.2	153
174	Performance of pile-up mitigation techniques for jets in [Formula: see text] collisions at [Formula: see text] TeV using the ATLAS detector. <i>European Physical Journal C</i> , 2016 , 76, 581	4.2	148
173	Measurement of the top quark-pair production cross section with ATLAS in pp collisions at ($\sqrt{s}=7$) TeV. <i>European Physical Journal C</i> , 2011 , 71, 1	4.2	138
172	Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018 , 784, 173-191	4.2	118
171	Search for Invisible Decays of a Higgs Boson Produced in Association with a Z Boson in ATLAS. <i>Physical Review Letters</i> , 2014 , 112,	7.4	113
170	Measurement of the inclusive isolated prompt photon cross section in pp collisions at $s=7$ TeV with the ATLAS detector. <i>Physical Review D</i> , 2011 , 83,	4.9	112
169	Study of the spin and parity of the Higgs boson in diboson decays with the ATLAS detector. <i>European Physical Journal C</i> , 2015 , 75, 476	4.2	104
168	Measurement of the Top Quark Mass Using Dilepton Events. <i>Physical Review Letters</i> , 1998 , 80, 2063-2068	4.4	96
167	Measurement of the Inelastic Proton-Proton Cross Section at $\sqrt{s}=13$ TeV with the ATLAS Detector at the LHC. <i>Physical Review Letters</i> , 2016 , 117, 182002	7.4	92
166	Observation of $H\rightarrow b\bar{b}$ decays and VH production with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018 , 786, 59-86	4.2	87
165	Measurement of the $Z/\bar{\nu}$ boson transverse momentum distribution in pp collisions at ($\sqrt{s}=7$) TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2014 , 2014, 1	5.4	79
164	Performance of missing transverse momentum reconstruction with the ATLAS detector using proton-proton collisions at. <i>European Physical Journal C</i> , 2018 , 78, 903	4.2	66
163	Search for the (\bar{b}) decay of the Standard Model Higgs boson in associated (W/Z)H production with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2015 , 2015, 1	5.4	64
162	Measurement of $W\bar{b}$ and Z-boson production cross sections in pp collisions at $s=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016 , 759, 601-621	4.2	64
161	Measurement of the shape of the boson rapidity distribution for $pp\rightarrow Z/\bar{\nu}+e\bar{e}+X$ events produced at s of 1.96 TeV. <i>Physical Review D</i> , 2007 , 76,	4.9	58
160	Precision measurement and interpretation of inclusive b and production cross sections with the ATLAS detector. <i>European Physical Journal C</i> , 2017 , 77, 367	4.2	56
159	Measurement of the inclusive and dijet cross-sections of b-jets in pp collisions at ($\sqrt{s}=7$ TeV) with the ATLAS detector. <i>European Physical Journal C</i> , 2011 , 71, 1	4.2	53
158	Search for dark matter at [Formula: see text] in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector. <i>European Physical Journal C</i> , 2017 , 77, 393	4.2	52

157	Electron and photon performance measurements with the ATLAS detector using the 2015-2017 LHC proton-proton collision data. <i>Journal of Instrumentation</i> , 2019 , 14, P12006-P12006	1	51
156	Evidence for the $(H \rightarrow b\bar{b})$ decay with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5-4	50
155	Identification and energy calibration of hadronically decaying tau leptons with the ATLAS experiment in collisions at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2015 , 75, 303	4-2	49
154	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector. <i>European Physical Journal C</i> , 2016 , 76, 538	4-2	48
153	Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment. <i>Physical Review Letters</i> , 2019 , 122, 231801	7-4	45
152	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	5-4	43
151	ATLAS b-jet identification performance and efficiency measurement with $t\bar{t}$ events in pp collisions at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2019 , 79, 1	4-2	43
150	Jet reconstruction and performance using particle flow with the ATLAS Detector. <i>European Physical Journal C</i> , 2017 , 77, 466	4-2	42
149	Measurement of the top quark mass in the $t\bar{t}\ell\ell$ dilepton channel from $\sqrt{s} = 8$ TeV ATLAS data. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016 , 761, 350-371	4-2	42
148	Search for direct top squark pair production in events with a W boson, W -jets and missing transverse momentum in $\sqrt{s} = 13$ TeV collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2014 , 74, 2883	4-2	41
147	Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s} = 7$ TeV in dilepton final states with ATLAS. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012 , 707, 459-477	4-2	41
146	Single hadron response measurement and calorimeter jet energy scale uncertainty with the ATLAS detector at the LHC. <i>European Physical Journal C</i> , 2013 , 73, 1	4-2	41
145	Measurement of the Higgs boson mass in the $H \rightarrow ZZ \rightarrow 4\ell$ and $H \rightarrow Z\ell\ell$ channels with $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018 , 784, 345-366	4-2	41
144	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. <i>Journal of High Energy Physics</i> , 2014 , 2014, 1	5-4	39
143	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton-proton collision data at $\sqrt{s} = 13$ TeV. <i>European Physical Journal C</i> , 2019 , 79, 1	4-2	37
142	Measurement of the Higgs boson coupling properties in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	36
141	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. <i>European Physical Journal C</i> , 2017 , 77, 673	4-2	33
140	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. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5-4	33

139	Search for pair production of Higgs bosons in the $(\overline{b}\overline{b})$ 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	5.4	31
138	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	5.4	31
137	Measurements of b-jet tagging efficiency with the ATLAS detector using (\overline{t}) events at $(\sqrt{s}=13)$ TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	31
136	Performance of electron and photon triggers in ATLAS during LHC Run 2. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	30
135	Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC. <i>European Physical Journal C</i> , 2017 , 77, 332	4.2	29
134	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. <i>European Physical Journal C</i> , 2016 , 76, 295	4.2	28
133	Constraints on off-shell Higgs boson production and the Higgs boson total width in $ZZ \rightarrow 4\ell$ and $ZZ \rightarrow 2\ell 2\mu$ final states with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018 , 786, 223-244	4.2	28
132	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. <i>Journal of High Energy Physics</i> , 2015 , 2015, 1	5.4	27
131	Search for invisible decays of the Higgs boson produced in association with a hadronically decaying vector boson in collisions at $[\text{Formula: see text}]$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2015 , 75, 337	4.2	27
130	Measurements of gluon-gluon fusion and vector-boson fusion Higgs boson production cross-sections in the $H \rightarrow WW^* \rightarrow 4\ell$ decay channel in pp collisions at $s=13\text{TeV}$ with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019 , 789, 508-529	4.2	27
129	Search for the Decay of the Higgs Boson to Charm Quarks with the ATLAS Experiment. <i>Physical Review Letters</i> , 2018 , 120, 211802	7.4	27
128	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. <i>Physical Review Letters</i> , 2019 , 123, 161801	7.4	26
127	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	4.2	26
126	Test of CP invariance in vector-boson fusion production of the Higgs boson using the method in the ditau decay channel with the ATLAS detector. <i>European Physical Journal C</i> , 2016 , 76, 658	4.2	26
125	Electron and photon energy calibration with the ATLAS detector using 2015-2016 LHC proton-proton collision data. <i>Journal of Instrumentation</i> , 2019 , 14, P03017-P03017	1	25
124	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. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	25
123	Measurement of the Soft-Drop Jet Mass in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector. <i>Physical Review Letters</i> , 2018 , 121, 092001	7.4	24
122	Measurement of the muon charge asymmetry in $pp \rightarrow W+X \rightarrow \mu X$ events at $s=1.96$ TeV. <i>Physical Review D</i> , 2013 , 88,	4.9	23

121	Prompt and non-prompt and suppression at high transverse momentum in Pb+Pb collisions with the ATLAS experiment. <i>European Physical Journal C</i> , 2018 , 78, 762	4.2	23
120	A measurement of the calorimeter response to single hadrons and determination of the jet energy scale uncertainty using LHC Run-1 -collision data with the ATLAS detector. <i>European Physical Journal C</i> , 2017 , 77, 26	4.2	22
119	Observation of electroweak $W\Xi Z$ boson pair production in association with two jets in pp collisions at $s=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019 , 793, 469-492	4.2	22
118	Search for invisible Higgs boson decays in vector boson fusion at $s=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019 , 793, 499-519	4.2	21
117	A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2021 , 812, 135980	4.2	21
116	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. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	21
115	Performance of top-quark and (ν_{τ})-boson tagging with ATLAS in Run 2 of the LHC. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	19
114	Search for direct top squark pair production in final states with two leptons in TeV collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2017 , 77, 898	4.2	19
113	Study of the material of the ATLAS inner detector for Run 2 of the LHC. <i>Journal of Instrumentation</i> , 2017 , 12, P12009-P12009	1	19
112	Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in collision data at [Formula: see text] with the ATLAS detector. <i>European Physical Journal C</i> , 2016 , 76, 87	4.2	18
111	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. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	17
110	In situ calibration of large-radius jet energy and mass in 13 TeV proton-proton collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	16
109	ATLAS data quality operations and performance for 2015-2018 data-taking. <i>Journal of Instrumentation</i> , 2020 , 15, P04003-P04003	1	16
108	Search for the Standard Model Higgs boson decaying into ($\gamma\gamma$) 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	5.4	16
107	Measurement of the Drell-Yan triple-differential cross section in pp collisions at ($\sqrt{s}=8$) TeV. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	16
106	The performance of the jet trigger for the ATLAS detector during 2011 data taking. <i>European Physical Journal C</i> , 2016 , 76, 526	4.2	16
105	Measurement of fiducial and differential (W^+W^-) production cross-sections at ($\sqrt{s}=13$) TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	16
104	Measurements of electroweak [Formula: see text] production and constraints on anomalous gauge couplings with the ATLAS detector. <i>European Physical Journal C</i> , 2017 , 77, 474	4.2	14

103	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	4.2	14
102	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	5.4	14
101	Combined measurement of differential and total cross sections in the $H \rightarrow ZZ$ and the $H \rightarrow Z\gamma$ decay channels at $\sqrt{s}=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018 , 786, 114-133	4.2	14
100	Performance of the ATLAS muon triggers in Run 2. <i>Journal of Instrumentation</i> , 2020 , 15, P09015-P09015	1	13
99	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. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	13
98	Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $(\sqrt{s}=13)$ TeV. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	13
97	Measurements of top-quark pair differential and double-differential cross-sections in the $(\ell\ell)+$ jets channel with pp collisions at $(\sqrt{s}=13)$ TeV using the ATLAS detector. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	13
96	Higgs boson production cross-section measurements and their EFT interpretation in the (4ℓ) decay channel at $(\sqrt{s}=13)$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	12
95	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	5.4	12
94	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. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017 , 775, 206-228	4.2	12
93	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	5.4	12
92	Measurement of the cross-section and charge asymmetry of W bosons produced in proton-proton collisions at $(\sqrt{s}=8\text{ TeV})$ with the ATLAS detector. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	11
91	Jet energy scale and resolution measured in proton-proton collisions at $(\sqrt{s}=13)$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	11
90	. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	10
89	. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	9
88	Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	9
87	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the (4ℓ) decay channel at $(\sqrt{s}) = 13$ TeV. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	9
86	Measurement of $VH, (H \rightarrow \overline{b}b)$ production as a function of the vector-boson transverse momentum in 13 TeV pp collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	8

85	Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $(\sqrt{s}) = 13$ TeV pp collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	8
84	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	5.4	8
83	Measurement of splitting scales in τ -events at [Formula: see text] with the ATLAS detector. <i>European Physical Journal C</i> , 2013 , 73, 2432	4.2	8
82	Evidence for $(\bar{t}t)$ production in the multilepton final state in proton-proton collisions at $(\sqrt{s}=13)$ (text {TeV}) with the ATLAS detector. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	8
81	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	5.4	8
80	Measurements of top-quark pair spin correlations in the $(e\mu)$ channel at $(\sqrt{s} = 13)$ TeV using pp collisions in the ATLAS detector. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	8
79	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	5.4	8
78	Search for heavy resonances decaying into a pair of Z bosons in the $(e^+e^-e^+e^-)$ and $(e^+e^-e^+\nu_{\bar{\nu}})$ final states using 139 (mathrm {fb}^{-1}) of proton-proton collisions at $(\sqrt{s} = 13)$ TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	8
77	Search for charged Higgs bosons decaying into a top quark and a bottom quark at $(\sqrt{s}) = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	8
76	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	8
75	A measurement of material in the ATLAS tracker using secondary hadronic interactions in 7 TeVpp collisions. <i>Journal of Instrumentation</i> , 2016 , 11, P11020-P11020	1	7
74	Measurement of differential cross sections and W^+/W^- cross-section ratios for W boson production in association with jets at $(\sqrt{s}=8)$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	7
73	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. <i>Journal of High Energy Physics</i> , 2017 , 2017, 1	5.4	7
72	Performance of the ATLAS Transition Radiation Tracker in Run 1 of the LHC: tracker properties. <i>Journal of Instrumentation</i> , 2017 , 12, P05002-P05002	1	7
71	Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $(\sqrt{s} = 13, \text{text {TeV}})$ with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	7
70	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $(e^+e^-b\bar{b})$ and $(e^+e^-W^+W^-)$ final states in pp collisions at $(\sqrt{s}=13)$ (text {TeV}) with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	7
69	Measurements of WH and ZH production in the $(H \rightarrow b\bar{b})$ decay channel in pp collisions at $(13, \text{text {TeV}})$ with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	7
68	Search for $(\bar{t}t)$ resonances in fully hadronic final states in pp collisions at $(\sqrt{s}) = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	6

67	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	6
66	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	5.4	6
65	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a lepton in pp collisions at (\sqrt{s}) = 13 TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	6
64	Combinations of single-top-quark production cross-section measurements and $ f_{LVVtb} $ determinations at (\sqrt{s}) = 7 and 8 TeV with the ATLAS and CMS experiments. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	5
63	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. <i>Journal of High Energy Physics</i> , 2019 , 2019, 1	5.4	5
62	Evidence for electroweak production of two jets in association with a Z pair in pp collisions at $s=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020 , 803, 135341	4.2	5
61	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	5
60	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	5
59	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. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	5
58	Measurement of light-by-light scattering and search for axion-like particles with 2.2 nb of Pb+Pb data with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	5
57	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	4.2	5
56	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	4.2	5
55	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	5.4	5
54	Combination of inclusive and differential ($\overline{\text{t}}$) charge asymmetry measurements using ATLAS and CMS data at ($\sqrt{s}=7$) and 8 TeV. <i>Journal of High Energy Physics</i> , 2018 , 2018, 1	5.4	4
53	Search for heavy diboson resonances in semileptonic final states in pp collisions at ($\sqrt{s}=13$) TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	4
52	Alignment of the ATLAS Inner Detector in Run 2. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	4
51	Search for charged-lepton-flavour violation in Z-boson decays with the ATLAS detector. <i>Nature Physics</i> , 2021 , 17, 819-825	16.2	4
50	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. <i>European Physical Journal C</i> , 2019 , 79, 1	4.2	4

49	Search for dark matter produced in association with a single top quark in ($\sqrt{s}=13$) TeV (pp) collisions with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	4
48	Determination of jet calibration and energy resolution in proton-proton collisions at ($\sqrt{s} = 8$) TeV using the ATLAS detector. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	3
47	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
46	Reconstruction and identification of boosted di-photon systems in a search for Higgs boson pairs using 13 TeV proton-proton collision data in ATLAS. <i>Journal of High Energy Physics</i> , 2020 , 2020, 1	5.4	3
45	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	5.4	3
44	Measurement of hadronic event shapes in high-p _T multijet final states at ($\sqrt{s} = 13$) TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	3
43	Performance of the upgraded PreProcessor of the ATLAS Level-1 Calorimeter Trigger. <i>Journal of Instrumentation</i> , 2020 , 15, P11016-P11016	1	2
42	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. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	2
41	Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	2
40	Two-particle azimuthal correlations in photonuclear ultraperipheral Pb+Pb collisions at 5.02 TeV with ATLAS. <i>Physical Review C</i> , 2021 , 104,	2.7	2
39	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2
38	Exclusive dimuon production in ultraperipheral Pb+Pb collisions at s _{NN} =5.02TeV with ATLAS. <i>Physical Review C</i> , 2021 , 104,	2.7	2
37	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	2
36	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. <i>European Physical Journal C</i> , 2020 , 80, 1	4.2	1
35	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
34	Measurement of the CP-violating phase ϕ_{13} in $B_s \rightarrow J/\psi \phi$ decays in ATLAS at 13 TeV. <i>European Physical Journal C</i> , 2021 , 81,	4.2	1
33	Test of the universality of κ and λ lepton couplings in W-boson decays with the ATLAS detector. <i>Nature Physics</i> , 2021 , 17, 813-818	16.2	1
32	Determination of the parton distribution functions of the proton from ATLAS measurements of differential W and Z boson production in association with jets. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1

31	A search for the decays of stopped long-lived particles at $(\sqrt{s}) = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
30	Performance of the ATLAS RPC detector and Level-1 muon barrel trigger at $(\sqrt{s})=13$ TeV. <i>Journal of Instrumentation</i> , 2021 , 16, P07029	1	1
29	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $(\sqrt{s}) = 8, \text{TeV}$ with the ATLAS detector. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	1
28	Measurements of sensor radiation damage in the ATLAS inner detector using leakage currents. <i>Journal of Instrumentation</i> , 2021 , 16, P08025	1	1
27	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	4.2	1
26	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. <i>Physical Review Letters</i> , 2021 , 127, 141801	7.4	1
25	Search for phenomena beyond the Standard Model in events with large b-jet multiplicity using the ATLAS detector at the LHC. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	1
24	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. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	1
23	Configuration and performance of the ATLAS b-jet triggers in Run 2. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	1
22	Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s} = 7, 8$ and 13 TeV. <i>European Physical Journal C</i> , 2022 , 82, 1	4.2	1
21	Emulating the impact of additional proton-proton interactions in the ATLAS simulation by presampling sets of inelastic Monte Carlo events. <i>Computing and Software for Big Science</i> , 2022 , 6, 1	6	0
20	Performance of the ATLAS Level-1 topological trigger in Run 2. <i>European Physical Journal C</i> , 2022 , 82, 1	4.2	0
19	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	0
18	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 13 TeV with the ATLAS detector. <i>European Physical Journal C</i> , 2022 , 82, 1	4.2	0
17	Measurement of the $t\bar{t}$ production cross section in pp collisions at $(\sqrt{s}) = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
16	Measurements of $W+W$ jet production cross-sections in pp collisions at $(\sqrt{s}) = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0
15	Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $(\sqrt{s})=13, \text{TeV}$. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	0
14	Measurements of differential cross-sections in four-lepton events in 13 TeV proton-proton collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	0

13	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. <i>European Physical Journal C</i> , 2021 , 81, 1	4.2	○
12	The ATLAS Fast Tracker system. <i>Journal of Instrumentation</i> , 2021 , 16, P07006	1	○
11	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. <i>Journal of High Energy Physics</i> , 2022 , 2022, 1	5.4	○
10	AtlFast3: The Next Generation of Fast Simulation in ATLAS. <i>Computing and Software for Big Science</i> , 2022 , 6, 1	6	○
9	Measurement of the energy response of the ATLAS calorimeter to charged pions from $W \rightarrow \tau \rightarrow \pi \nu_{\tau} \nu_{\tau}$ events in Run 2 data. <i>European Physical Journal C</i> , 2022 , 82, 1	4.2	○
8	Search for associated production of a Z boson with an invisibly decaying Higgs boson or dark matter candidates at $s=13$ TeV with the ATLAS detector. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022 , 137066	4.2	○
7	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	○
6	Measurement of the production cross section of pairs of isolated photons in pp collisions at 13 TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	○
5	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. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	○
4	Search for Lepton-Flavor Violation in Z-Boson Decays with Leptons with the ATLAS Detector.. <i>Physical Review Letters</i> , 2021 , 127, 271801	7.4	○
3	Measurement of b-quark fragmentation properties in jets using the decay $B \rightarrow J/\psi$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	○
2	The ATLAS inner detector trigger performance in pp collisions at 13 TeV during LHC Run 2. <i>European Physical Journal C</i> , 2022 , 82, 1	4.2	
1	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 $s=13$ TeV. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022 , 137106	4.2	