

Soumya Mohapatra

List of Publications by Year in descending order

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Version: 2024-02-01

225
papers

12,672
citations

23500

58
h-index

30848

102
g-index

232
all docs

232
docs citations

232
times ranked

8078
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	1.4	489
2	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
3	Improved luminosity determination in pp collisions at $\sqrt{s} = 7$ TeV using the ATLAS detector at the LHC. European Physical Journal C, 2013, 73, 2518.	1.4	362
4	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. European Physical Journal C, 2017, 77, 490.	1.4	325
5	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
6	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
7	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
8	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
9	Performance of the ATLAS Trigger System in 2010. European Physical Journal C, 2012, 72, 1.	1.4	259
10	Electron performance measurements with the ATLAS detector using the 2010 LHC proton-proton collision data. European Physical Journal C, 2012, 72, 1.	1.4	248

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#	ARTICLE	IF	CITATIONS
19	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
20	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	1.4	145
21	Precision measurement and interpretation of inclusive W^+W^- , W^+W^+ . European Physical Journal C, 2017, 77, 367.	1.4	145
22	Search for dark matter candidates and large extra dimensions in events with a jet and missing transverse momentum with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	137
23	Measurement of the Z/γ^* boson transverse momentum distribution in pp collisions at $s = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	131
24	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
25	Search for charged Higgs bosons decaying via $H \rightarrow \tau^+\tau^-$ in $t\bar{t}$ events using pp collision data at $\sqrt{s} = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	126
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#	ARTICLE	IF	CITATIONS
37	Jet mass and substructure of inclusive jets in $\sqrt{s} = 7; \text{TeV}$ pp collisions with the ATLAS experiment. Journal of High Energy Physics, 2012, 2012, 1.	1.6	88
38	Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2021, 81, 1.	1.4	82
39	ATLAS search for new phenomena in dijet mass and angular distributions using pp collisions at $\sqrt{s} = 7 \text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	1.6	81
40	Search for dark matter at $\sqrt{s} = 13 \text{ TeV}$ 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
41	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton-proton collision data at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2019, 79, 1.	1.4	77
42	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	1.4	75
43	Measurement of the inclusive and dijet cross-sections of b-jets in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	73
44	Measurement of the production cross section of jets in association with a Z boson in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	73
45	Search for new phenomena in final states with large jet multiplicities and missing transverse momentum at $\sqrt{s} = 8 \text{ TeV}$ proton-proton collisions using the ATLAS experiment. Journal of High Energy Physics, 2013, 2013, 1.	1.6	71
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.	1.4	71
47	Identification and energy calibration of hadronically decaying tau leptons with the ATLAS experiment in pp collisions at $\sqrt{s} = 8 \text{ TeV}$. European Physical Journal C, 2015, 75, 303.	1.4	70
48	Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using $\sqrt{s} = 7 \text{ TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2011, 2011, 1.	1.6	65
49	Measurement of isolated-photon pair production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	64
50	Evidence for the $H \rightarrow b\bar{b}$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	64
51	Jet energy scale and resolution measured in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	64
52	Measurement of ZZ production in pp collisions at $\sqrt{s} = 7 \text{ TeV}$ and limits on anomalous ZZZ and ZZ $\tilde{\chi}^0$ couplings with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	61
53	Measurements of top quark pair relative differential cross-sections with ATLAS in pp collisions at $\sqrt{s} = 7 \text{ TeV}$. European Physical Journal C, 2013, 73, 1.	1.4	61
54	Prompt and non-prompt J/ψ and $\psi(2S)$ 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

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55	Measurement of multi-jet cross sections in proton-proton collisions at a 7 TeV center-of-mass energy. European Physical Journal C, 2011, 71, 1.	1.4	60
56	Measurement of $W \pm Z$ production in proton-proton collisions at $\sqrt{s}=7\text{-TeV}$ with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	59
57	Search for resonances decaying into top-quark pairs using fully hadronic decays in pp collisions with ATLAS at $\sqrt{s}=7\text{ TeV}$. Journal of High Energy Physics, 2013, 2013, 1.	1.6	59
58	Muon reconstruction efficiency and momentum resolution of the ATLAS experiment in proton-proton collisions at $\sqrt{s}=7\text{ TeV}$ in 2010. European Physical Journal C, 2014, 74, 3034.	1.4	58
59	Measurement of the W boson polarization in top quark decays with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	57
60	Measurement of the jet fragmentation function and transverse profile in proton-proton collisions at a center-of-mass energy of 7 TeV with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	56
61	Search for direct top squark pair production in events with a Z boson, b-jets and missing transverse momentum in $\sqrt{s}=8\text{ TeV}$ pp collisions with the ATLAS detector. European Physical Journal C, 2014, 74, 2883.	1.4	55
62	Search for pair production of Higgs bosons in the $b\bar{b}$ final state using proton-proton collisions at $\sqrt{s}=13\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	55
63	Search for a heavy top-quark partner in final states with two leptons with the ATLAS detector at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	1.6	54
64	Search for high-mass resonances decaying to dilepton final states in pp collisions at $\sqrt{s}=7\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	54
65	Hunt for new phenomena using large jet multiplicities and missing transverse momentum with ATLAS in 4.7 fb^{-1} of $\sqrt{s}=7\text{ TeV}$ proton-proton collisions. Journal of High Energy Physics, 2012, 2012, 1.	1.6	53
66	Measurement of the cross-section for W boson production in association with b-jets in pp collisions at $\sqrt{s}=7\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	53
67	Search for the neutral Higgs bosons of the minimal supersymmetric standard model in pp collisions at $\sqrt{s}=7\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	52
68	Performance of jet substructure techniques for large-R jets in proton-proton collisions at $\sqrt{s}=7\text{ TeV}$ using the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	52
69	Measurement of the top quark mass with the template method in the $\text{Star}\{t\}\text{omathrm}\{\text{lepton}\}+\text{omathrm}\{\text{jets}\}$ channel using ATLAS data. European Physical Journal C, 2012, 72, 2046.	1.4	51
70	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. European Physical Journal C, 2016, 76, 295.	1.4	50
71	Search for direct top squark pair production in final states with two leptons in $\sqrt{s}=13\text{ TeV}$ pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 898.	1.4	50
72	Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s}=13\text{ TeV}$ pp collision data collected by the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	49

#	ARTICLE	IF	CITATIONS
73	Search for pair production of massive particles decaying into three quarks with the ATLAS detector in $\sqrt{s}=7\text{ TeV}$ pp collisions at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	1.6	48
74	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.	1.4	48
75	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fb^{-1} of $\sqrt{s}=13\text{ TeV}$ pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	48
76	Measurement of the Higgs boson coupling properties in the $H \rightarrow ZZ \rightarrow 4\ell$ decay channel at $\sqrt{s}=13\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	46
77	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.	1.4	46
78	Search for charged Higgs bosons decaying into a top quark and a bottom quark at $\sqrt{s}=13\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	46
79	Measurement of the cross section for top-quark pair production in pp collisions at $\sqrt{s} = 7, \text{ TeV}$ with the ATLAS detector using final states with two high-p T leptons. Journal of High Energy Physics, 2012, 2012, 1.	1.6	45
80	Search for pair-produced massive coloured scalars in four-jet final states with the ATLAS detector in proton-proton collisions at $\sqrt{s} = 7\text{ TeV}$. European Physical Journal C, 2013, 73, 1.	1.4	45
81	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
82	Measurement of the $t\bar{t}$ production cross section in the tau + jets channel using the ATLAS detector. European Physical Journal C, 2013, 73, 2328.	1.4	45
83	Search for supersymmetry at $\sqrt{s} = 8\text{ TeV}$ 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
84	Search for the Standard Model Higgs boson in the $H \rightarrow \tau\tau, \tau\tau, \tau\tau$ decay mode in $\sqrt{s} = 7, \text{ TeV}$ pp collisions with ATLAS. Journal of High Energy Physics, 2012, 2012, 1.	1.6	43
85	Measurement of the top quark pair production charge asymmetry in proton-proton collisions at $\sqrt{s} = 7\text{ TeV}$ using the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	42
86	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
87	Search for supersymmetric particles in events with lepton pairs and large missing transverse momentum in $\sqrt{s}=7\text{ TeV}$ proton-proton collisions with the ATLAS experiment. European Physical Journal C, 2011, 71, 1.	1.4	41
88	Higgs boson production cross-section measurements and their EFT interpretation in the $H \rightarrow 4\ell$ decay channel at $\sqrt{s}=13\text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	41
89	Limits on the production of the standard model Higgs boson in pp collisions at $\sqrt{s} = 7\text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	40
90	A search for t resonances in lepton+jets events with highly boosted top quarks collected in pp collisions at $\sqrt{s} = 7\text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	40

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91	Measurements of b-jet tagging efficiency with the ATLAS detector using $\sqrt{s}=13$ TeV events at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	40
92	Search for heavy resonances decaying into a pair of Z bosons in the $\sqrt{s}=13$ TeV proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	40
93	Search for massive colored scalars in four-jet final states in $\sqrt{s}=7$ TeV proton-proton collisions with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	39
94	Measurements of WH and ZH production in the $\sqrt{s}=13$ TeV decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	38
95	Search for second generation scalar leptoquarks in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	37
96	Electron and photon energy calibration with the ATLAS detector using 2015–2016 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P03017-P03017.	0.5	37
97	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.	1.6	37
98	ATLAS search for a heavy gauge boson decaying to a charged lepton and a neutrino in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2012, 72, 1.	1.4	36
99	Search for same-sign top-quark production and fourth-generation down-type quarks in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	36
100	Measurement of the polarisation of W bosons produced with large transverse momentum in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS experiment. European Physical Journal C, 2012, 72, 1.	1.4	36
101	Measurement of dijet cross-sections in pp collisions at 7 TeV centre-of-mass energy using the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	36
102	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
103	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
104	Measurement of the production cross section of prompt J/ψ mesons in association with a W^{\pm} boson in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	1.6	35
105	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.	1.6	35
106	A search for flavour changing neutral currents in top-quark decays in pp collision data collected with the ATLAS detector at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	34
107	Multi-channel search for squarks and gluinos in $\sqrt{s}=7$ TeV pp collisions with the ATLAS detector at the LHC. European Physical Journal C, 2013, 73, 2362.	1.4	34
108	Measurements of top-quark pair differential and double-differential cross-sections in the $\sqrt{s}=13$ TeV +jets channel with pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	34

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109	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
110	Inclusive search for same-sign dilepton signatures in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2011, 2011, 1.	1.6	33
111	Measurement of jet shapes in top-quark pair events at $\sqrt{s} = 7$ TeV using the ATLAS detector. European Physical Journal C, 2013, 73, 2676.	1.4	33
112	Search for third generation scalar leptoquarks in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	32
113	Measurement of c_1 and c_2 production with s $\sqrt{s} = 7$ TeV pp collisions at ATLAS. Journal of High Energy Physics, 2014, 2014, 1.	1.6	32
114	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
115	Measurements of underlying-event properties using neutral and charged particles in pp collisions at $\sqrt{s}=900$ GeV and $\sqrt{s}=7$ TeV with the ATLAS detector at the LHC. European Physical Journal C, 2011, 71, 1.	1.4	31
116	Search for light scalar top-quark pair production in final states with two leptons with the ATLAS detector in $\sqrt{s}=7$ TeV pp collisions. European Physical Journal C, 2012, 72, 1.	1.4	31
117	Measurement of the differential cross-section of $B +$ meson production in pp collisions at $\sqrt{s}=7$ TeV at ATLAS. Journal of High Energy Physics, 2013, 2013, 1.	1.6	31
118	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.	1.6	31
119	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.	1.6	30
120	Evidence for $t\bar{t}$ production in the multilepton final state in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	30
121	Forward-backward correlations and charged-particle azimuthal distributions in pp interactions using the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	29
122	Elucidating the event-by-event flow fluctuations in heavy-ion collisions via the event-shape selection technique. Physical Review C, 2014, 90, .	1.1	29
123	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
124	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.	1.4	29
125	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.	1.6	28
126	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.	1.4	28

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127	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a \bar{l}_τ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	27
128	Measurements of electroweak W_{jj} production and constraints on anomalous gauge couplings with the ATLAS detector. European Physical Journal C, 2017, 77, 474.	1.4	26
129	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell\ell b\bar{b}$ and $\ell\ell W W$ final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	26
130	A search for ρ resonances with the ATLAS detector in 2.05 fb^{-1} of proton-proton collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2012, 72, 2083.	1.4	25
131	Search for top and bottom squarks from gluino pair production in final states with missing transverse energy and at least three b-jets with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	25
132	A method for studying initial geometry fluctuations via event plane correlations in heavy ion collisions. European Physical Journal C, 2013, 73, 1.	1.4	25
133	Disentangling flow and nonflow correlations via Bayesian unfolding of the event-by-event distributions of harmonic coefficients in ultrarelativistic heavy-ion collisions. Physical Review C, 2013, 88, .	1.1	25
134	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.	1.4	24
135	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
136	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
137	Measurement of the inclusive jet cross-sections in proton-proton collisions at $s = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	23
138	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. Journal of High Energy Physics, 2021, 2021, 1.	1.6	23
139	AtlFast3: The Next Generation of Fast Simulation in ATLAS. Computing and Software for Big Science, 2022, 6, 1.	1.3	23
140	Measurement of event shapes at large momentum transfer with the ATLAS detector in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2012, 72, 1.	1.4	22
141	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. Journal of High Energy Physics, 2014, 2014, 1.	1.6	22
142	Searches for scalar leptoquarks and differential cross-section measurements in dilepton-dijet events in proton-proton collisions at a centre-of-mass energy of $\sqrt{s} = 13$ TeV with the ATLAS experiment. European Physical Journal C, 2019, 79, 1.	1.4	22
143	Measurements of top-quark pair spin correlations in the e^+e^- channel at $\sqrt{s} = 13$ TeV using pp collisions in the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	22
144	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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145	Measurement of \tilde{I}_μ polarization in $W\hat{t}^{\prime}\hat{t}^{\prime}/2$ decays with the ATLAS detector in pp collisions at $\sqrt{s}=7\text{--}\text{TeV}$. European Physical Journal C, 2012, 72, 2062.	1.4	21
146	The performance of the jet trigger for the ATLAS detector during 2011 data taking. European Physical Journal C, 2016, 76, 526.	1.4	21
147	Search for the Standard Model Higgs boson decaying into $b\bar{b}$ produced in association with top quarks decaying hadronically in pp collisions at $\sqrt{s}=8\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2016, 2016, 1.	1.6	21
148	Search for charged Higgs bosons through the violation of lepton universality in t events using pp collision data at $\sqrt{s}=7\text{--}\text{TeV}$ with the ATLAS experiment. Journal of High Energy Physics, 2013, 2013, 1.	1.6	19
149	Measurement of k_T splitting scales in $W\hat{t}^{\prime}\hat{t}^{\prime}/2$ events at $\sqrt{s}=7\text{--}\text{TeV}$ with the ATLAS detector. European Physical Journal C, 2013, 73, 2432.	1.4	19
150	Search for squarks and gluinos in final states with same-sign leptons and jets using $139\text{--}\text{fb}^{-1}$ of data collected with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	19
151	Measurement of light-by-light scattering and search for axion-like particles with $2.2\text{--}\text{nb}^{-1}$ of Pb+Pb data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	19
152	Search for an excess of events with an identical flavour lepton pair and significant missing transverse momentum in $\sqrt{s}=7\text{--}\text{TeV}$ proton-proton collisions with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	18
153	Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s}=13\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	18
154	Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in proton-proton collisions at $\sqrt{s}=13\text{--}\text{TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	18
155	Search for new phenomena in final states with b-jets and missing transverse momentum in $\sqrt{s}=13\text{--}\text{TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	18
156	Search for anomalous production of prompt like-sign lepton pairs at $\sqrt{s}=7\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	17
157	Measurement of the top quark charge in pp collisions at $\sqrt{s}=7\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	17
158	Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at $\sqrt{s}=13\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	17
159	Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking. Journal of High Energy Physics, 2020, 2020, 1.	1.6	17
160	Search for the $HH\hat{t}^{\prime}\hat{t}^{\prime}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s}=13\text{--}\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	17
161	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. European Physical Journal C, 2021, 81, 1.	1.4	17
162	Search for a fermiophobic Higgs boson in the diphoton decay channel with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	16

#	ARTICLE	IF	CITATIONS
163	Measurement of differential cross sections and $W^+/W^{\bar{0}}$ 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.	1.6	16
164	Search for diphoton events with large missing transverse energy with 36 pb^{-1} of 7 TeV proton-proton collision data with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	1.4	15
165	Measurements of the pseudorapidity dependence of the total transverse energy in proton-proton collisions at $\sqrt{s}=7$ TeV with ATLAS. Journal of High Energy Physics, 2012, 2012, 1.	1.6	15
166	Search for decays of stopped, long-lived particles from 7 TeV pp collisions with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	15
167	Search for direct chargino production in anomaly-mediated supersymmetry breaking models based on a disappearing-track signature in pp collisions at $\sqrt{s}=7 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	1.6	15
168	Measurement of the flavour composition of dijet events in pp collisions at $\sqrt{s}=7 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2013, 73, 1.	1.4	15
169	Search for WH production with a light Higgs boson decaying to prompt electron-jets in proton-proton collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. New Journal of Physics, 2013, 15, 043009.	1.2	15
170	Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions. European Physical Journal C, 2021, 81, 1.	1.4	15
171	Determination of jet calibration and energy resolution in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	15
172	Search for a heavy neutral particle decaying into an electron and a muon using 1 fb^{-1} of ATLAS data. European Physical Journal C, 2011, 71, 1.	1.4	14
173	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.	1.6	14
174	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.	1.6	14
175	Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $\sqrt{s}=13 \text{ TeV}$. European Physical Journal C, 2021, 81, 1.	1.4	14
176	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.	1.6	14
177	Search for $\overline{t}t$ 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.	1.6	14
178	Measurement of the c-jet mistagging efficiency in $t\bar{t}$ events using pp collision data at $\sqrt{s}=13 \text{ TeV}$ collected with the ATLAS detector. European Physical Journal C, 2022, 82, .	1.4	14
179	Energy Loss for Heavy Quarks in Relation to Light Partons: Is Radiative Energy Loss for Heavy Quarks Anomalous?. Physical Review Letters, 2009, 103, 142302.	2.9	13
180	Search for R-parity-violating supersymmetry in events with four or more leptons in $\sqrt{s}=7 \text{ TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	1.6	13

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181	Search for anomaly-mediated supersymmetry breaking with the ATLAS detector based on a disappearing-track signature in pp collisions at $\sqrt{s} = 7\text{-TeV}$. European Physical Journal C, 2012, 72, 1.	1.4	13
182	Search for supersymmetry in events with large missing transverse momentum, jets, and at least one tau lepton in 7 TeV proton-proton collision data with the ATLAS detector. European Physical Journal C, 2012, 72, 1.	1.4	13
183	Search for lepton flavour violation in the $e\tau$ continuum with the ATLAS detector in $\sqrt{s} = 7\text{-TeV}$ pp collisions at the LHC. European Physical Journal C, 2012, 72, 2040.	1.4	13
184	The differential production cross section of the $\phi(1020)$ meson in $\sqrt{s} = 7\text{TeV}$ pp collisions measured with the ATLAS detector. European Physical Journal C, 2014, 74, 2895.	1.4	13
185	Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	13
186	Measurement of inclusive two-particle angular correlations in pp collisions with the ATLAS detector at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	1.6	12
187	Observation of the associated production of a top quark and a Z boson in pp collisions at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	12
188	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.	1.4	12
189	Search for supersymmetry in events with four or more charged leptons in 139fb^{-1} of $\sqrt{s} = 13\text{TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	12
190	Measurements of the inclusive and differential production cross sections of a top-quark-antiquark pair in association with a Z boson at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	12
191	Search for dark matter in events with missing transverse momentum and a Higgs boson decaying into two photons in pp collisions at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	12
192	Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1.	1.4	12
193	Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s} = 7, 8$ and 13TeV . European Physical Journal C, 2022, 82, 1.	1.4	12
194	Measurement of $W^{\pm}Z$ and $Z^{\pm}Z$ production in proton-proton collisions at $\sqrt{s} = 7\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2011, 2011, 1.	1.6	11
195	Measurements of the production cross-section for a Z boson in association with b-jets in proton-proton collisions at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	11
196	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.	1.6	10
197	Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s} = 13\text{TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	10
198	Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with 139fb^{-1} of pp collision data at $\sqrt{s} = 13\text{TeV}$. Journal of High Energy Physics, 2022, 2022, 1.	1.6	10

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199	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.	1.6	10
200	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.	1.4	9
201	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.	1.4	9
202	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.	1.6	8
203	Measurements of $W+W^{\ast}+1$ 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.	1.6	8
204	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.	1.6	8
205	Reconstruction and identification of boosted di- τ 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.	1.6	8
206	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.	1.4	8
207	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.	1.4	7
208	Configuration and performance of the ATLAS b-jet triggers in Run 2. <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	7
209	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. <i>European Physical Journal C</i> , 2022, 82, .	1.4	7
210	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.	1.6	6
211	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.	1.6	6
212	Performance of the ATLAS Level-1 topological trigger in Run 2. <i>European Physical Journal C</i> , 2022, 82, 1.	1.4	6
213	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.	1.6	5
214	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.	1.4	5
215	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.	1.4	5
216	Measurement of hadronic event shapes in high-pT multijet final states at $\sqrt{s}=13$ TeV with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	1.6	4

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217	Search for top squarks in events with a Higgs or Z boson using 139 fb^{-1} of pp collision data at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	4
218	Measurement of the energy response of the ATLAS calorimeter to charged pions from $W^{\pm} \rightarrow \mu^{\pm} \nu_{\mu} (\rightarrow \pi^{\pm} \nu_{\mu}) \nu_{\tau}$ events in Run 2 data. European Physical Journal C, 2022, 82, 1.	1.4	4
219	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.	1.6	4
220	Search for exotic decays of the Higgs boson into long-lived particles in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ using displaced vertices in the ATLAS inner detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	4
221	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $\sqrt{s} = 8, \text{ext } \{ \text{TeV} \}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	3
222	Measurement of the inclusive jet cross-section in proton-proton collisions at $(\sqrt{s} = 7) \text{ TeV}$ using 4.5 fb^{-1} of data with the ATLAS detector. , 2015, 2015, 1.		3
223	Measurement of b-quark fragmentation properties in jets using the decay $B^{\pm} \rightarrow \mu^{\pm} J/\psi K^{\pm}$ in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	3
224	Search for exotic decays of the Higgs boson into $b \overline{b}$ and missing transverse momentum in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2022, 2022, 1.	1.6	2
225	Measurement of the energy asymmetry in $t\bar{t}$ production at $13, \text{TeV}$ with the ATLAS experiment and interpretation in the SMEFT framework. European Physical Journal C, 2022, 82, .	1.4	2