Benjamin Nachman

List of Publications by Year
in descending order

334 papers	13,716 citations	20759 60 h-index	34900 98 g-index
354 all docs	354 docs citations	354 times ranked	8886 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 protonâ€"proton collision data at $$sqrt{s}$$ s =13ÂTeV. European Physical Journal C, 2016, 76, 292.	1.4	453
3	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. European Physical Journal C, 2017, 77, 490.	1.4	325
4	Performance of pile-up mitigation techniques for jets in $$pp$$ p p collisions at $$sqrt{s}=8$$. European Physical Journal C, 2016, 76, 581.	1.4	298
5	Luminosity determination in pp collisions at $$sqrt{s}$$ s = 8 TeV using the ATLAS detector at the LHC. European Physical Journal C, 2016, 76, 653.	1.4	279
6	Jet substructure at the Large Hadron Collider: A review of recent advances in theory and machine learning. Physics Reports, 2020, 841, 1-63.	10.3	230
7	Jet-images â€" deep learning edition. Journal of High Energy Physics, 2016, 2016, 1.	1.6	222
8	Measurement of the W-boson mass in pp collisions at $$sqrt{s}=7, hbox {TeV}$$ s = 7 TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 110.	1.4	218
9	Search for an additional, heavy Higgs boson in the $$Hightarrow ZZ$$ H â†' Z Z decay channel at $$sqrt{s} = 8;ext{ TeV }$$ s = 8 TeV in $$pp$$ p p collision data with the ATLAS detector. European Physical Journal C, 2016, 76, 45.	1.4	197
10	Performance of missing transverse momentum reconstruction with the ATLAS detector using protonâ€"proton collisions at $$sqrt{s}=13~hbox {TeV}$$ s = 13 TeV. European Physical Journal C, 2018, 78, 903.	1.4	181
11	CaloGAN: Simulating 3D high energy particle showers in multilayer electromagnetic calorimeters with generative adversarial networks. Physical Review D, 2018, 97, .	1.6	177
12	Search for new high-mass phenomena in the dilepton final state using 36 fbâ^'1 of proton-proton collision data at s = 13 $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	168
13	Learning Particle Physics by Example: Location-Aware Generative Adversarial Networks for Physics Synthesis. Computing and Software for Big Science, 2017, 1, 1.	1.3	162
14	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	1.4	145
15	Precision measurement and interpretation of inclusive $$W^+$$ W + , $$W^-$$ W -. European Physical Journal C, 2017, 77, 367.	1.4	145
16	Accelerating Science with Generative Adversarial Networks: An Application to 3D Particle Showers in Multilayer Calorimeters. Physical Review Letters, 2018, 120, 042003.	2.9	139
17	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
18	Classification without labels: learning from mixed samples in high energy physics. Journal of High Energy Physics, 2017, 2017, 1.	1.6	138

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19	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
20	Searching for long-lived particles beyond the Standard Model at the Large Hadron Collider. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 090501.	1.4	133
21	Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton–proton collisions at $$sqrt{s}=13,ext {TeV}$$ s = 13 TeV. European Physical Journal C, 2018, 78, 199.	1.4	132
22	ATLAS b-jet identification performance and efficiency measurement with $$t{ar{t}}$$ events in pp collisions at $$sqrt{s}=13$$ÂTeV. European Physical Journal C, 2019, 79, 1.	1.4	130
23	Jet substructure at the Large Hadron Collider. Reviews of Modern Physics, 2019, 91, .	16.4	128
24	Anomaly detection with density estimation. Physical Review D, 2020, 101, .	1.6	128
25	Anomaly Detection for Resonant New Physics with Machine Learning. Physical Review Letters, 2018, 121, 241803.	2.9	126
26	Search for electroweak production of supersymmetric particles in final states with two or three leptons at $$sqrt{s}=13hbox {TeV}$$ s = 13 TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 995.	1.4	125
27	Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $$sqrt{s}=13$$Â$$ext {TeV}$$ pp collisions using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	124
28	Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in 36 fbâ^1 of pp collisions at s = 13 $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	116
29	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $$sqrt{s}=8,~{mathrm {TeV}}$$ s = 8 TeV using the ATLAS detector. European Physical Journal C, 2016, 76, 538.	1.4	115
30	Search for heavy resonances decaying into WW in the $$eu mu u $$ e Î½ Î¼ Î½ final state in pp collisions at $$sqrt{s}=13$$ s = 13 $$,ext {TeV}$$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 24.	1.4	108
31	The Machine Learning landscape of top taggers. SciPost Physics, 2019, 7, .	1.5	106
32	Search for heavy ZZ resonances in the $$ell ^+ell ^-ell ^+ell ^-$$ â„" + â„" - â„" + â„" - and $$ell ^+ell ^-u ar{u }$$ â„" + â„" - Î½ Î½ Â¯ final states using proton–proton collisions at $$sqrt{s}= 13$$ s = 13 Â $$ext {TeV}$$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 293.	1.4	101
33	Extending the search for new resonances with machine learning. Physical Review D, 2019, 99, .	1.6	94
34	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	1.4	93
35	Electron efficiency measurements with the ATLAS detector using 2012 LHC proton–proton collision data. European Physical Journal C, 2017, 77, 195.	1.4	87
36	Measurement of multi-particle azimuthal correlations in pp, pÂ+ÂPb and low-multiplicity PbÂ+ÂPb collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 428.	1.4	86

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37	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
38	Zero-noise extrapolation for quantum-gate error mitigation with identity insertions. Physical Review A, 2020, 102, .	1.0	81
39	Search for dark matter at $$sqrt{s}=13~mathrm{TeV}$$ 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
40	Search for heavy particles decaying into top-quark pairs using lepton-plus-jets events in proton–proton collisions at $$sqrt{s} = 13$$ s = 13 Â $$ext {TeV}$$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 565.	1.4	79
41	Simulation assisted likelihood-free anomaly detection. Physical Review D, 2020, 101, .	1.6	78
42	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton–proton collision data at $$sqrt{s} = 13$$Â$$ext {TeV}$$. European Physical Journal C, 2019, 79, 1.	1.4	77
43	Angular analysis of B0 dâ€°â†'â€°Kâˆ—Î¼+Î¼âˆ’ decays in pp collisions at $$ sqrt{s}=8 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	76
44	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	1.4	75
45	Measurement of quarkonium production in proton–lead and proton–proton collisions at $$5.02~mathrm {TeV}$$ 5.02 TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 171.	1.4	75
46	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
47	Weakly supervised classification in high energy physics. Journal of High Energy Physics, 2017, 2017, 1.	1.6	72
48	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
49	The LHC Olympics 2020 a community challenge for anomaly detection in high energy physics. Reports on Progress in Physics, 2021, 84, 124201.	8.1	70
50	Pileup Mitigation with Machine Learning (PUMML). Journal of High Energy Physics, 2017, 2017, 1.	1.6	69
51	Search for new resonances in mass distributions of jet pairs using 139 fbâ‹1 of pp collisions at $$ sqrt{mathrm{s}} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	68
52	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
53	Quantum Algorithm for High Energy Physics Simulations. Physical Review Letters, 2021, 126, 062001.	2.9	67
54	A search for pair-produced resonances in four-jet final states at $$sqrt{s}=13$$ s = 13 $$ext {TeV}$$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 250.	1.4	66

#	ARTICLE	IF	CITATIONS
55	Unfolding quantum computer readout noise. Npj Quantum Information, 2020, 6, .	2.8	65
56	Evidence for the H $\to$ b b $\bar{}$ $$ H$\to$ $\overline{b}$ $$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	64
57	Jet energy scale and resolution measured in proton–proton collisions at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	64
58	Bisection-based asymmetric M T2 computation: a higher precision calculator than existing symmetric methods. Journal of High Energy Physics, 2015, 2015, 1.	1.6	63
59	Identification of boosted, hadronically decaying W bosons and comparisons with ATLAS data taken at $$sqrt{s} = 8$$ s = 8 ÂTeV. European Physical Journal C, 2016, 76, 154.	1.4	62
60	Prompt and non-prompt $$J/psi $$ J / Ïˆ and $$psi (2mathrm {S})$$ Ïˆ (2 S) suppression at high transverse momentum in $$5.02~mathrm {TeV}$$ 5.02 TeV Pb+Pb collisions with the ATLAS experiment. European Physical Journal C, 2018, 78, 762.	1.4	61
61	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
62	Search for dark matter produced in association with bottom or top quarks in $$sqrt{s}=13$$s=13ÂTeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 18.	1.4	60
63	Measurement of longitudinal flow decorrelations in Pb+Pb collisions at $$sqrt{s_{ext {NN}}}=2.76$$ s NN = 2.76 and 5.0. European Physical Journal C, 2018, 78, 142.	1.4	59
64	Search for charged Higgs bosons decaying via H$\pm$ $\to$ Ï„$\pm$Î½Ï„ in the Ï„+jets and Ï„+lepton final states with 36 fbâˆ'1 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
65	Fiducial, total and differential cross-section measurements of t-channel single top-quark production in pp collisions at 8ÂTeV using data collected by the ATLAS detector. European Physical Journal C, 2017, 77, 531.	1.4	56
66	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
67	OmniFold: A Method to Simultaneously Unfold All Observables. Physical Review Letters, 2020, 124, 182001.	2.9	56
68	Mitigating Depolarizing Noise on Quantum Computers with Noise-Estimation Circuits. Physical Review Letters, 2021, 127, 270502.	2.9	56
69	Boosting $$ H$\to$ $\overline{b}$ $$ with machine learning. Journal of High Energy Physics, 2018, 2018, 1.	1.6	55
70	Search for pair production of Higgs bosons in the $$ $\overline{b}$$\overline{b}$ $$ final state using proton-proton collisions at $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	55
71	Search for Higgs boson pair production in the $$gamma gamma WW^*$$ Î³ Î³ W W â†— channel using $$pp$$ pp collision data recorded at $$sqrt{s}$$ s $$=13$$ = 13 TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 1007.	1.4	53
72	Search for the direct production of charginos and neutralinos in final states with tau leptons in $$sqrt{s} = 13,mathrm{TeV}$$ s = 13 TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 154.	1.4	52

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73	Measurement of the charged-particle multiplicity inside jets from $$\sqrt{s}=8$$ s = 8 $${\mathrm{TeV}}$$ TeV Âpp collisions with the ATLAS detector. European Physical Journal C, 2016, 76, 322.	1.4	51
74	Measurement of jet fragmentation in Pb+Pb and pp collisions at $$\sqrt{{s_\mathrm{NN}}} = 2.76$$ s NN = 2.76. European Physical Journal C, 2017, 77, 379.	1.4	51
75	Measurement of the azimuthal anisotropy of charged particles produced in $$\sqrt{s_{_\text{NN}}}$$ s NN = 5.02ÂTeV Pb+Pb collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 997.	1.4	51
76	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. European Physical Journal C, 2016, 76, 295.	1.4	50
77	Search for direct top squark pair production in final states with two leptons in $$\sqrt{s} = 13$$ s = 13 TeV pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 898.	1.4	50
78	Search for a new heavy gauge-boson resonance decaying into a lepton and missing transverse momentum in 36 fb $$^{-1}$$ - 1 of pp collisions at. European Physical Journal C, 2018, 78, 401.	1.4	50
79	Learning to classify from impure samples with high-dimensional data. Physical Review D, 2018, 98, .	1.6	50
80	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. Journal of High Energy Physics, 2019, 2019, 1.	1.6	50
81	Constraints on mediator-based dark matter and scalar dark energy models using $$ \sqrt{s} $$ = 13 TeV pp collision data collected by the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	49
82	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
83	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fbâ˜'1 of $$ \sqrt{s}=13 $$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	48
84	Measurement of the top quark mass in the $$\tar{t}\rightarrow $$ t t Â¯ â†'. European Physical Journal C, 2019, 79, 1.	1.4	47
85	Measurement of the Higgs boson coupling properties in the H â†' ZZâ—— â†' 4â„" decay channel at $$ \sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	46
86	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
87	Search for charged Higgs bosons decaying into a top quark and a bottom quark at $$ \sqrt{\mathrm{s}} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	46
88	Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at s = 13 $$ \sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	45
89	Performance of top-quark and $$\varvec{W}$$ W -boson tagging with ATLAS in Run 2 of the LHC. European Physical Journal C, 2019, 79, 1.	1.4	42
90	Measurement of $$W^{\pm }Z$$ production cross sections and gauge boson polarisation in pp collisions at $$\sqrt{s} = 13~\text {TeV}$$ with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	41

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91	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
92	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 fb⁻¹ of $$\sqrt{s}=13$$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	40
93	Measurements of b-jet tagging efficiency with the ATLAS detector using $$\overline{t}$$ events at $$\sqrt{s}=13$$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	1.6	40
94	Search for heavy resonances decaying into a pair of Z bosons in the $$\ell^+\ell^-\ell'^+\ell'^-$$ and $$\ell^+\ell^-\nu{\bar{\nu}}$$ final states using 139 $$\mathrm{fb}^{-1}$$ of proton–proton collisions at $$\sqrt{s} = 13,$$TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	40
95	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
96	Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in s = 13 $$\sqrt{s}=13$$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	38
97	Search for Higgs boson pair production in the $$\upgamma\upgamma b\overline{b}$$ final state with 13 TeV pp collision data collected by the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	1.6	38
98	Measurements of WH and ZH production in the $$H\rightarrow b\bar{b}$$ decay channel in pp collisions at $$13,\text {Te}\text {V}$$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	38
99	GANplifying event samples. SciPost Physics, 2021, 10, .	1.5	38
100	Measurement of the W boson polarisation in $$\bar{t}$$ t t $$\bar{t}$$ events from pp collisions at $$\sqrt{s}$$ s = 8 TeV in the lepton + jets channel with ATLAS. European Physical Journal C, 2017, 77, 264.	1.4	37
101	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
102	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
103	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
104	Jets from jets: re-clustering as a tool for large radius jet reconstruction and grooming at the LHC. Journal of High Energy Physics, 2015, 2015, 1.	1.6	36
105	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
106	Convolved substructure: analytically decorrelating jet substructure observables. Journal of High Energy Physics, 2018, 2018, 1.	1.6	36
107	Measurement of flow harmonics correlations with mean transverse momentum in lead–lead and proton–lead collisions at $$\sqrt{s_{\mathrm{NN}}} = 5.02~\hbox {TeV}$$ with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	36
108	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

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109	Search for a scalar partner of the top quark in the all-hadronic $$t\bar{t}$$ plus missing transverse momentum final state at $$\sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	36
110	Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector. European Physical Journal C, 2017, 77, 580.	1.4	35
111	Measurements of top-quark pair differential and double-differential cross-sections in the $$\ell$$+jets channel with pp collisions at $$\sqrt{s}=13$$ TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	34
112	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 $$\sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	34
113	Simulation-assisted decorrelation for resonant anomaly detection. Physical Review D, 2021, 104, .	1.6	34
114	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
115	Determination of the strong coupling constant $$\alpha_\mathrm{s}$$ Î± s from transverse energyâ€"energy correlations in multijet events at $$\sqrt{s} = 8~\hbox{TeV}$$. European Physical Journal C, 2017, 77, 872.	1.4	32
116	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the 4$$\ell$$ decay channel at $$\sqrt{s}$$ = 13 TeV. European Physical Journal C, 2020, 80, 1.	1.4	32
117	Neural networks for full phase-space reweighting and parameter tuning. Physical Review D, 2020, 101, .	1.6	32
118	Measurement of inclusive and differential cross sections in the H â†' ZZ * â†' 4â„" 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
119	Search for supersymmetry in final states with two same-sign or three leptons and jets using 36 fbâˆ'1 of $$\sqrt{s}=13$$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	31
120	Search for W W/W Z resonance production in â„"Î½qq 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
121	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
122	Machine learning in the search for new fundamental physics. Nature Reviews Physics, 2022, 4, 399-412.	11.9	31
123	Searches for the ZÎ³ decay mode of the Higgs boson and for new high-mass resonances in pp collisions at s = 13 $$\sqrt{s}=13$$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	30
124	Study of $$WW\gamma$$ W W Î³ and $$WZ\gamma$$ W Z. European Physical Journal C, 2017, 77, 646.	1.4	30
125	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
126	Searches for third-generation scalar leptoquarks in $$\sqrt{s}$$ = 13 TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	1.6	30

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127	Evidence for $$\bar{t}\bar{t}$$ production in the multilepton final state in proton–proton collisions at $$\sqrt{s}=13$$Â$$\text {TeV}$$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	30
128	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
129	Measurement of the inclusive cross-sections of single top-quark and top-antiquark t-channel production in pp collisions at s = 13 $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	29
130	Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	29
131	Searches for heavy ZZ and ZW resonances in the â„“â„“qq and ν½Î½½qq final states in pp collisions at $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	29
132	Search for heavy diboson resonances in semileptonic final states in pp collisions at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	29
133	A guide for deploying Deep Learning in LHC searches: How to achieve optimality and account for uncertainty. SciPost Physics, 2020, 8, .	1.5	29
134	Measurement of lepton differential distributions and the top quark mass in $$\bar{t}$$ t t Â⁻. European Physical Journal C, 2017, 77, 804.	1.4	28
135	Measurement of $$WW/WZ \rightarrow ell u q q^{prime }$$ W W / W Z â†’ â„“ Î½ q q â€² production with the hadronically decaying boson reconstructed as one or two jets in pp collisions at $$sqrt{s} =8~ext {TeV}$$ s = 8 TeV with ATLAS, and constraints on anomalous gauge couplings. European Physical Journal C, 2017, 77, 563.	1.4	28
136	Measurement of the Drell-Yan triple-differential cross section in pp collisions at s = 8 $$ sqrt{s}=8 $$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	1.6	28
137	Search for the Higgs boson produced in association with a vector boson and decaying into two spin-zero particles in the H â†’ aa â†’ 4b channel in pp collisions at $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	1.6	28
138	Search for long-lived neutral particles in pp collisions at $${sqrt{s}} = 13~{ext { TeV}}$$ that decay into displaced hadronic jets in the ATLAS calorimeter. European Physical Journal C, 2019, 79, 1.	1.4	28
139	In situ calibration of large-radius jet energy and mass in 13ÂTeVÂproton–proton collisions with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	1.4	28
140	Fluctuations of anisotropic flow in Pb+Pb collisions at $$ sqrt{{mathrm{s}}_{mathrm{NN}}} $$ = 5.02 TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	1.6	28
141	Measurement of the transverse momentum distribution of Drell–Yan lepton pairs in proton–proton collisions at $$sqrt{s}=13,$$TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	1.4	28
142	Simulating Collider Physics on Quantum Computers Using Effective Field Theories. Physical Review Letters, 2021, 127, 212001.	2.9	28
143	Search for chargino–neutralino pair production in final states with three leptons and missing transverse momentum in $$sqrt{s} = 13$$ÂTeV pp collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	1.4	28
144	Measurements of top-quark pair differential cross-sections in the $$emu $$ e ¼ channel in pp collisions at $$sqrt{s} = 13$$ s = 13 ÂTeV using the ATLAS detector. European Physical Journal C, 2017, 77, 292.	1.4	27

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145	Search for new phenomena using the invariant mass distribution of same-flavour opposite-sign dilepton pairs in events with missing transverse momentum in $$sqrt{s}=13$$ s = 13 Â $$ext {Te}ext {V}$$ Te pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 625.	1.4	27
146	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
147	Measurement of the top-quark mass in $$ toverline{t} $$ + 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
148	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a Ï„-lepton in pp collisions at $$ sqrt{s} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	1.6	27
149	Measurements of electroweak $$Wjj $$ W j j production and constraints on anomalous gauge couplings with the ATLAS detector. European Physical Journal C, 2017, 77, 474.	1.4	26
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