

Philip Bechtle

List of Publications by Year in descending order

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Version: 2024-02-01

336
papers

31,725
citations

4658

85
h-index

4645

170
g-index

344
all docs

344
docs citations

344
times ranked

11273
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 716, 1-29.	4.1	6,386
2	The ATLAS Simulation Infrastructure. European Physical Journal C, 2010, 70, 823-874.	3.9	1,187
3	Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s}=7$ and 8 TeV with the ATLAS and CMS Experiments. Physical Review Letters, 2015, 114, 191803.	7.8	1,062
4	Search for neutral MSSM Higgs bosons at LEP. European Physical Journal C, 2006, 47, 547.	3.9	592
5	HiggsBounds: Confronting arbitrary Higgs sectors with exclusion bounds from LEP and the Tevatron. Computer Physics Communications, 2010, 181, 138-167.	7.5	501
6	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	3.9	489
7	Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp collision data at $\sqrt{s}=7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	473
8	Muon reconstruction performance of the ATLAS detector in proton-proton collision data at $\sqrt{s}=13$ TeV. European Physical Journal C, 2016, 76, 292.	3.9	453
9	HiggsBounds-4: improved tests of extended Higgs sectors against exclusion bounds from LEP, the Tevatron and the LHC. European Physical Journal C, 2014, 74, 1.	3.9	412
10	HiggsBounds 2.0.0: Confronting neutral and charged Higgs sector predictions with exclusion bounds from LEP and the Tevatron. Computer Physics Communications, 2011, 182, 2605-2631.	7.5	408
11	HiggsSignals: Confronting arbitrary Higgs sectors with measurements at the Tevatron and the LHC. European Physical Journal C, 2014, 74, 1.	3.9	391
12	Combined search for the Standard Model Higgs boson using up to 4.9 fb^{-1} of pp collision data at $\sqrt{s}=7$ and 8 TeV with the ATLAS detector at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 710, 49-66.	4.1	307
13	Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1. European Physical Journal C, 2017, 77, 490.	3.9	325
14	Evidence for the spin-0 nature of the Higgs boson using ATLAS data. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 120-144.	4.1	307
15	Performance of pile-up mitigation techniques for jets in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2016, 76, 581.	3.9	298
16	Physics interplay of the LHC and the ILC. Physics Reports, 2006, 426, 47-358.	25.6	297
17	Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 88-119.	4.1	295
18	Luminosity determination in pp collisions at $\sqrt{s}=8$ TeV using the ATLAS detector at the LHC. European Physical Journal C, 2016, 76, 653.	3.9	279

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19	Measurements of the Higgs boson production and decay rates and coupling strengths using pp collision data at $\sqrt{s}=7$ s = 7 and 8 TeV in the ATLAS experiment. European Physical Journal C, 2016, 76, 6.	3.9	274
20	Jet energy measurement and its systematic uncertainty in proton-proton collisions at $\sqrt{s}=7$ s = 7 TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 17.	3.9	268
21	Performance of the ATLAS Trigger System in 2010. European Physical Journal C, 2012, 72, 1.	3.9	259
22	Combined measurements of Higgs boson production and decay using up to 80% of proton-proton collision data at $\sqrt{s}=8$ s = 8 TeV with the ATLAS detector. Physical Review D, 2020, 101, .	3.9	241
23	Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at $\sqrt{s}=8$ s = 8 TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 299.	3.9	238

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37	Applying exclusion likelihoods from LHC searches to extended Higgs sectors. European Physical Journal C, 2015, 75, 1.	3.9	170
38	Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 784, 173-191.	4.1	169
39	Scalar Diphoton Resonances in the Mass Range 6536-6000 GeV with the ATLAS Detector in $\sqrt{s} = 13$ TeV collisions. European Physical Journal C, 2017, 77, 1.	7.8	168
40	Measurements of Higgs boson production and couplings in the four-lepton channel in $\sqrt{s} = 13$ TeV collisions at center-of-mass energies of 7 and 8 TeV with the ATLAS detector. Physical Review D, 2015, 91, .	4.7	158
41	Jet energy scale measurements and their systematic uncertainties in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physical Review D, 2017, 96, .	4.7	157
42	Measurement of the top quark-pair production cross section with ATLAS in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2011, 71, 1.	3.9	146
43	Search for direct production of charginos, neutralinos and sleptons in final states with two leptons and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	145
44	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	3.9	145
45	Precision measurement and interpretation of inclusive W^+W^- , W^+W^0 , W^0W^- . European Physical Journal C, 2017, 77, 367.	3.9	145
46	Search for squarks and gluinos using final states with jets and missing transverse momentum with the ATLAS detector in $\sqrt{s} = 7$ TeV proton-proton collisions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 710, 67-85.	4.1	145
47	ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider. European Physical Journal C, 2015, 75, 510.	3.9	138
48	Observation of $H \rightarrow b\bar{b}$ decays and VH production with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 784, 173-191.	4.1	138
49	HiggsBounds-5: testing Higgs sectors in the LHC 13 TeV Era. European Physical Journal C, 2020, 80, 1.	3.9	138
50	Search for new phenomena in final states with an energetic jet and large missing transverse momentum in $\sqrt{s} = 13$ TeV collisions with the ATLAS Detector. European Physical Journal C, 2017, 77, 1.	4.7	137
51	Search for invisible Higgs boson decays in $\sqrt{s} = 7$ TeV collisions. Physical Review Letters, 2011, 106, 131802.	7.8	136
52	Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment. Physical Review Letters, 2019, 122, 231801.	7.8	133
53	Measurement of the $Z/\hat{1}^3$ * boson transverse momentum distribution in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	131
54	Search for Invisible Decays of a Higgs Boson Produced in Association with a $Z/\hat{1}^3$ * Boson in ATLAS. Physical Review Letters, 2014, 112, .	7.8	130

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55	ATLAS b-jet identification performance and efficiency measurement with $\sqrt{s}=13$ TeV events in pp collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	130
56	Search for squarks and gluinos with the ATLAS detector in final states with jets and missing transverse momentum using $\sqrt{s}=8$ TeV proton-proton collision data. Journal of High Energy Physics, 2014, 2014, 1.	4.7	128
57	Search for pair-produced third-generation squarks decaying via charm quarks or in compressed supersymmetric scenarios in $\sqrt{s}=8$ TeV proton-proton collision data at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	4.1	126
58	Search for charged Higgs bosons decaying via $H \rightarrow \tau^+ \tau^-$ in $\sqrt{s}=7$ TeV events using pp collision data at $\sqrt{s}=7$ TeV with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	4.7	126
59	Search for pair-produced third-generation squarks decaying via charm quarks or in compressed supersymmetric scenarios in $\sqrt{s}=8$ TeV proton-proton collision data at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2012, 2012, 1.	4.7	126
60	Electron and photon performance measurements with the ATLAS detector using the 2015–2017 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P12006-P12006.	1.2	124
61	Search for the Standard Model Higgs boson produced in association with top quarks and decaying into $b\bar{b}$ in $\sqrt{s}=8$ TeV pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. European Physical Journal C, 2015, 75, 1.	3.9	123
62	Measurement of the inclusive isolated prompt photon cross section in $\sqrt{s}=8$ TeV pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Physical Review D, 2011, 83, 1.	4.7	121
63	Evidence for the Higgs-boson Yukawa coupling to tau leptons with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	116
64	Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in $\sqrt{s}=13$ TeV of pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	116
65	HiggsSignals-2: probing new physics with precision Higgs measurements in the LHC 13 TeV era. European Physical Journal C, 2021, 81, 1.	3.9	116
66	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s}=8$ TeV using the ATLAS detector. European Physical Journal C, 2016, 76, 538.	3.9	115
67	Measurement of Higgs boson properties in the diphoton decay channel with $\sqrt{s}=8$ TeV pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Physical Review D, 2015, 92, 1.	4.7	115
68	Observation and measurement of Higgs boson decays to W^+W^- in $\sqrt{s}=8$ TeV pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Physical Review D, 2015, 92, 1.	4.7	110
69	Physics at the e^+e^- linear collider. European Physical Journal C, 2015, 75, 371.	3.9	110
70	Combined search for the Standard Model Higgs boson in $\sqrt{s}=8$ TeV pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 5.	4.7	109
71	Searches for scalar leptoquarks in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 5.	3.9	109
72	Constraints on new phenomena via Higgs boson couplings and invisible decays with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	108

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73	Search for heavy resonances decaying into WW in the $e^+e^- \rightarrow \gamma^*/Z \rightarrow W^+W^-$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 24.	3.9	108
74	Constrained supersymmetry after two years of LHC data: a global view with Fittino. Journal of High Energy Physics, 2012, 2012, 1.	4.7	103
75	Search for direct third-generation squark pair production in final states with missing transverse momentum and two b-jets in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2013, 2013, 1.	4.7	102
76	Searches for Higgs boson pair production in the $h \rightarrow \gamma\gamma$ final state using proton-proton collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 293.	4.7	101
77	Search for heavy ZZ resonances in the $e^+e^- \rightarrow e^+e^- \gamma^*/Z \rightarrow Z\gamma$ final states using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 293.	3.9	101
78	Search for Higgs Boson Pair Production in the $h \rightarrow \gamma\gamma$ Final State Using pp Collision Data from the ATLAS Detector. Physical Review Letters, 2015, 114, 081802.	7.8	98
79	Search for a CP-odd Higgs boson decaying to Zh in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 744, 163-167.	4.7	98
80	Search for new phenomena in events with at least three photons collected in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 210.	3.9	95
81	Search for new phenomena in events with at least three photons collected in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 210.	3.9	95
82	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	3.9	93
83	Search for the $b\bar{b} \rightarrow H$ decay of the Standard Model Higgs boson in associated (W/Z)H production with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	89
84	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	88
85	Measurement of WAZ and Z-boson production cross sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 759, 601-607.	4.7	88
86	MSSM interpretations of the LHC discovery: light or heavy Higgs?. European Physical Journal C, 2013, 73, 1.	3.9	82
87	Search for neutral Higgs bosons of the minimal supersymmetric standard model in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	82
88	Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 1.	3.9	82
89	Search for dark matter at $\sqrt{s} = 13$ TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector. European Physical Journal C, 2017, 77, 393.	3.9	80
90	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton-proton collision data at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2019, 79, 1.	3.9	77

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91	Fittino, a program for determining MSSM parameters from collider observables using an iterative method. Computer Physics Communications, 2006, 174, 47-70.	7.5	75
92	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	3.9	75
93	Measurement of the inclusive and dijet cross-sections of b-jets in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. European Physical Journal C, 2011, 71, 1.	3.9	73
94	Search for squarks and gluinos in final states with jets and missing transverse momentum at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2016, 76, 392.	3.9	73
95	Search for Higgs boson decays to a photon and a Z boson in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 732, 8-27.	4.7	72
96	Search for supersymmetry at $\sqrt{s}=13$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector. European Physical Journal C, 2016, 76, 259.	3.9	72
97	Search for a high-mass Higgs boson decaying to a W boson pair in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2016, 2016, 1.	4.7	71
98	Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC. European Physical Journal C, 2017, 77, 332.	3.9	71
99	Identification and energy calibration of hadronically decaying tau leptons with the ATLAS experiment in pp collisions at $\sqrt{s}=8$ TeV. European Physical Journal C, 2015, 75, 303.	3.9	70
100	Search for Resonant and Nonresonant Higgs Boson Pair Production in the $b\bar{b}$ Decay Channel in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. Physical Review Letters, 2018, 121, 191801.	7.8	70
101	Search for new phenomena in high-mass diphoton final states using 37.1 fb ⁻¹ of proton-proton collisions collected at $\sqrt{s}=13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 775, 105-125.	4.7	66
102	ATLAS data quality operations and performance for 2015-2018 data-taking. Journal of Instrumentation, 2020, 15, P04003-P04003.	1.2	68
103	Search for top squark pair production in final states with one isolated lepton, jets, and missing transverse momentum in $\sqrt{s}=8$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	66
104	Killing the cMSSM softly. European Physical Journal C, 2016, 76, 1.	3.9	66
105	Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using $\sqrt{s}=7$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2011, 2011, 1.	4.7	65
106	Evidence for the $H \rightarrow b\bar{b}$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	64
107	Search for new phenomena in events with an energetic jet and missing transverse momentum in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. Physical Review D, 2021, 103, 1.	4.7	64
108	Jet energy scale and resolution measured in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	64

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109	Measurement of the Higgs boson mass in the $H \rightarrow \tau\tau$ channels with $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 108, 181802.	8.0	13
110	Cross-section measurements of the Higgs boson decaying into a pair of τ -leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physical Review D, 2019, 99, .	4.7	63
111	Airborne wind energy resource analysis. Renewable Energy, 2019, 141, 1103-1116.	8.9	63
112	Performance of the ATLAS muon triggers in Run 2. Journal of Instrumentation, 2020, 15, P09015-P09015.	1.2	62
113	Search for Scalar Bottom Quark Pair Production with the ATLAS Detector in pp Collisions at $\sqrt{s} = 7$ TeV. Physical Review Letters, 2012, 108, 181802.	7.8	61
114	Search for a Charged Higgs Boson Produced in the Vector-Boson Fusion Mode with Decay to WZ Collisions at $\sqrt{s} = 13$ TeV. Physical Review Letters, 2012, 108, 181802.	7.8	61
115	Prompt and non-prompt J/ψ and $\psi(2S)$ suppression at high transverse momentum in $\sqrt{s} = 5.02$ TeV Pb+Pb collisions with the ATLAS experiment. European Physical Journal C, 2018, 78, 762.	3.9	61
116	A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 812, 135980.	4.1	61
117	Search for direct top-squark pair production in final states with two leptons in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	59
118	Search for charged Higgs bosons decaying via $H^{\pm} \rightarrow \tau^{\pm} \bar{\nu}_{\tau}$, in the $\tau^{\pm}, +$ jets and $\tau^{\pm}, +$ lepton final states with 36 fb $^{-1}$ of pp collision data recorded at $\sqrt{s} = 13$ TeV with the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	4.7	59
119	Search for the Standard Model Higgs boson decay to $\tau\tau$ with the ATLAS detector using final states with two leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.1	58
120	Search for supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 738, 68-86.	4.1	58
121	Search for supersymmetry in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2015, 75, 318.	3.9	56
122	The light and heavy Higgs interpretation of the MSSM. European Physical Journal C, 2017, 77, 1.	3.9	56
123	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.	4.7	56
124	Search for direct top squark pair production in events with a Z boson, b -jets and missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2014, 74, 2883.	3.9	55
125	Search for pair production of Higgs bosons in the $b\bar{b}$ final state using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	55
126	Search for supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 738, 68-86.	4.1	54

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127	Search for the electroweak production of supersymmetric particles in pp collisions with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1. $\sqrt{s} = 13 \text{ TeV}$	4.7	53
128	Search for Higgs boson pair production in the $\gamma\gamma WW^* \rightarrow W W^* \rightarrow \gamma\gamma$ channel using pp collision data recorded at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>European Physical Journal C</i> , 2018, 78, 1007.	3.9	53
129	Search for the Decay of the Higgs Boson to Charm Quarks with the ATLAS Experiment. <i>Physical Review Letters</i> , 2018, 120, 211802.	7.8	53
130	Observation of Electroweak Production of a Same-Sign W^+W^- Boson Pair in Association with Two Jets in pp Collisions at $\sqrt{s} = 13 \text{ TeV}$. <i>Physical Review Letters</i> , 2018, 120, 211802.	7.8	53
131	Search for the production of a Higgs boson in association with a top quark and a W boson in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Physics Letters B</i> , 2018, 800, 135103.	4.1	53
132	Search for stable hadronising squarks and gluinos with the ATLAS experiment at the LHC. <i>Physics Letters B</i> , Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 701, 1-19.	4.1	52
133	Performance of jet substructure techniques for large- R jets in proton-proton collisions at $\sqrt{s} = 7 \text{ TeV}$ using the ATLAS detector. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	52
134	Measurement of the top quark mass in the $t\bar{t}$ channel from pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Physical Review D</i> , 2018, 97, .	4.1	52
135	Evidence for the associated production of the Higgs boson and a top quark pair with the ATLAS detector. <i>Physical Review D</i> , 2018, 97, .	4.7	51
136	Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment. <i>European Physical Journal C</i> , 2016, 76, 295.	3.9	50
137	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. <i>European Physical Journal C</i> , 2017, 77, 898.	3.9	50
138	Search for the standard model Higgs boson produced in association with top quarks and decaying into a $b\bar{b}$ pair in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Physical Review D</i> , 2018, 97, .	4.7	49
139	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. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	49
140	Test of CP invariance in vector-boson fusion production of the Higgs boson using the Optimal Observable method in the ditau decay channel with the ATLAS detector. <i>European Physical Journal C</i> , 2016, 76, 658.	3.9	48
141	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. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	48
142	Measurement of the Higgs boson coupling properties in the $H \rightarrow ZZ^* \rightarrow 4\mu$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	46
143	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.	3.9	46
144	Measurements of gluon-gluon fusion and vector-boson fusion Higgs boson production cross-sections in the $H \rightarrow \tau\tau$ decay channel in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. <i>Physics Letters B</i> , Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 508-529.	4.1	46

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145	Search for charged Higgs bosons decaying into a top quark and a bottom quark at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	46
146	Measurement of the top quark pair production cross section in pp collisions at $\sqrt{s} = 7$ TeV in dilepton final states with ATLAS. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 707, 459-477.	4.7	45
147	Single hadron response measurement and calorimeter jet energy scale uncertainty with the ATLAS detector at the LHC. European Physical Journal C, 2013, 73, 1.	3.9	45
148	Search for supersymmetry at $\sqrt{s} = 8$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector. Journal of High Energy Physics, 2014, 2014, 1.	4.7	45
149	Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at $s = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	45
150	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the bb final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 783, 392-414.	4.1	43
151	Constraints on off-shell Higgs boson production and the Higgs boson total width in $ZZ\gamma\gamma$ and $ZZ\gamma\gamma$ final states with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 223-244.	4.1	43
152	Constraining SUSY models with Fittino using measurements before, with and beyond the LHC. European Physical Journal C, 2010, 66, 215-259.	3.9	42
153	Search for squarks and gluinos in events with isolated leptons, jets and missing transverse momentum at $s = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2015, 2015, 1.	4.7	42
154	Combined measurement of differential and total cross sections in the $H\gamma\gamma$ and the $H\gamma\gamma$ decay channels at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 114-133.	4.1	41
155	Performance of top-quark and W -boson tagging with ATLAS in Run 2 of the LHC. European Physical Journal C, 2019, 79, 1.	3.9	42
156	Search for heavy long-lived charged particles with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 114-133.	4.1	41
157	Search for supersymmetric particles in events with lepton pairs and large missing transverse momentum in $\sqrt{s} = 7$ TeV proton-proton collisions with the ATLAS experiment. European Physical Journal C, 2011, 71, 1.	3.9	41
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