

# Alvaro Lopez Solis

## List of Publications by Year in descending order

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Version: 2024-02-01

164  
papers

5,761  
citations

87888

38  
h-index

98798

67  
g-index

175  
all docs

175  
docs citations

175  
times ranked

6928  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	3.9	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.	3.9	453
3	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
4	Performance of missing transverse momentum reconstruction with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 903.	3.9	181
5	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	3.9	145
6	Precision measurement and interpretation of inclusive $W^+W^+$ , $W^+W^-$ . European Physical Journal C, 2017, 77, 367.	3.9	145
7	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.	3.9	130
8	Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	124
9	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	3.9	93
10	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
11	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
12	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
13	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	3.9	75
14	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
15	Search for new resonances in mass distributions of jet pairs using $139 \text{ fb}^{-1}$ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	68
16	Evidence for the $H \rightarrow b\bar{b}$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	64
17	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
18	Prompt and non-prompt $J/\psi$ and $\psi(2S)$ suppression at high transverse momentum in $5.02 \text{ TeV Pb+Pb}$ collisions with the ATLAS experiment. European Physical Journal C, 2018, 78, 762.	3.9	61

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19	Search for doubly charged scalar bosons decaying into same-sign W boson pairs with the ATLAS detector. European Physical Journal C, 2019, 79, 58.	3.9	61
20	Search for charged Higgs bosons decaying via $H^{\pm} \rightarrow \tau^{\pm} \nu_{\tau}$ , in the $\tau^{\pm} + \text{jets}$ and $\tau^{\pm} + \text{lepton}$ final states with $36 \text{ fb}^{-1}$ of pp collision data recorded at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	4.7	59
21	Search for charged Higgs bosons decaying into top and bottom quarks at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	56
22	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.	4.7	55
23	Measurement of the azimuthal anisotropy of charged particles produced in $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ Pb+Pb collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 997.	3.9	51
24	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.	3.9	50
25	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.	4.7	50
26	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.	4.7	49
27	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.	3.9	48
28	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using $36 \text{ fb}^{-1}$ of $\sqrt{s} = 13 \text{ TeV}$ pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	48
29	Measurement of the top quark mass in the $t \rightarrow t \bar{\nu}_e$ . European Physical Journal C, 2019, 79, 1.	3.9	47
30	Measurement of the Higgs boson coupling properties in the $H \rightarrow Z Z^* \rightarrow 4\tau$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	46
31	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.	3.9	46
32	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.	4.7	46
33	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
34	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.	3.9	41
35	Higgs boson production cross-section measurements and their EFT interpretation in the $4\ell$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	41
36	Measurements of b-jet tagging efficiency with the ATLAS detector using $t$ events at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2018, 2018, 1.	4.7	40

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37	Search for heavy resonances decaying into a pair of Z bosons in the $e^+e^- \rightarrow e^+e^- Z Z$ and $e^+e^- \rightarrow e^+e^- \gamma \gamma$ final states using 139 $\text{fb}^{-1}$ of proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	40
38	Search for heavy Majorana or Dirac neutrinos and right-handed W gauge bosons in final states with two charged leptons and two jets at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	39
39	Search for Higgs boson pair production in the $\gamma\gamma$ final state with 13 TeV pp collision data collected by the ATLAS experiment. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
40	Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ decay channel in pp collisions at $\sqrt{s} = 13, \text{TeV}$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	38
41	Electron and photon energy calibration with the ATLAS detector using 2015-2016 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P03017-P03017.	1.2	37
42	Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 $\text{fb}^{-1}$ of $\sqrt{s} = 13 \text{ TeV}$ pp collision data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	37
43	Measurement of flow harmonics correlations with mean transverse momentum in lead-lead and proton-lead collisions at $\sqrt{s_{NN}} = 5.02 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	36
44	Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $\sqrt{s} = 13 \text{ TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	36
45	Search for a scalar partner of the top quark in the all-hadronic $t\bar{t}$ plus missing transverse momentum final state at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	36
46	Measurements of top-quark pair differential and double-differential cross-sections in the $t\bar{t} + \text{jets}$ channel with pp collisions at $\sqrt{s} = 13 \text{ TeV}$ using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	34
47	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 $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	34
48	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the $H \rightarrow e^+e^-$ decay channel at $\sqrt{s} = 13 \text{ TeV}$ . European Physical Journal C, 2020, 80, 1.	3.9	32
49	Measurement of inclusive and differential cross sections in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
50	Search for new phenomena in events with same-charge leptons and b-jets in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	30
51	Searches for third-generation scalar leptoquarks in $\sqrt{s} = 13 \text{ TeV}$ pp collisions with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	30
52	Evidence for $t\bar{t}$ production in the multilepton final state in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	30
53	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.	3.9	29
54	Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29

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55	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.	3.9	29
56	Measurement of the Drell-Yan triple-differential cross section in pp collisions at $s = 8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	28
57	Search for the Higgs boson produced in association with a vector boson and decaying into two spin-zero particles in the $H \rightarrow \tau^+ \tau^- 4b$ channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	28
58	Search for long-lived neutral particles in pp collisions at $\sqrt{s} = 13$ TeV that decay into displaced hadronic jets in the ATLAS calorimeter. European Physical Journal C, 2019, 79, 1.	3.9	28
59	In situ calibration of large-radius jet energy and mass in $\sqrt{s}=13$ TeV proton-proton collisions with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	28
60	Fluctuations of anisotropic flow in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	28
61	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.	3.9	28
62	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.	3.9	28
63	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.	4.7	27
64	Measurement of the top-quark mass in $\overline{t}t + 1$ -jet events collected with the ATLAS detector in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	27
65	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a $\tau$ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
66	Measurements of electroweak $W_{jj} W_{jj}$ production and constraints on anomalous gauge couplings with the ATLAS detector. European Physical Journal C, 2017, 77, 474.	3.9	26
67	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.	3.9	26
68	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.	3.9	24
69	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.	3.9	24
70	Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	24
71	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.	4.7	23
72	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.	4.7	23

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73	AtlFast3: The Next Generation of Fast Simulation in ATLAS. Computing and Software for Big Science, 2022, 6, 1.	2.9	23
74	Search for pair production of heavy vector-like quarks decaying into high-pT W bosons and top quarks in the lepton-plus-jets final state in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	22
75	Measurements of top-quark pair spin correlations in the $\mu\mu$ channel at $\sqrt{s} = 13$ TeV using pp collisions in the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	22
76	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.	4.7	22
77	The performance of the jet trigger for the ATLAS detector during 2011 data taking. European Physical Journal C, 2016, 76, 526.	3.9	21
78	Search for the Standard Model Higgs boson decaying into $b\bar{b}$ produced in association with top quarks decaying hadronically in pp collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2016, 2016, 1.	4.7	21
79	Search for Higgs boson pair production in the $WW^{(*)}WW^{(*)}$ decay channel using ATLAS data recorded at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	21
80	Identification of boosted Higgs bosons decaying into b-quark pairs with the ATLAS detector at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, .	3.9	21
81	Search for light long-lived neutral particles produced in pp collisions at $\sqrt{s} = 13$ TeV and decaying into collimated leptons or light hadrons with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	21
82	Search for diboson resonances in hadronic final states in $139 \text{ fb}^{-1}$ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	20
83	Prompt and non-prompt $J/\psi$ elliptic flow in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 784.	3.9	19
84	Search for top-quark decays $t \rightarrow Hq$ with $36 \text{ fb}^{-1}$ of pp collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	19
85	Search for squarks and gluinos in final states with same-sign leptons and jets using $139 \text{ fb}^{-1}$ of data collected with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	19
86	Measurement of light-by-light scattering and search for axion-like particles with $2.2 \text{ nb}^{-1}$ of Pb+Pb data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	19
87	Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	18
88	Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	18
89	Search for new phenomena in final states with b-jets and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	18
90	Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17



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91	Measurements of W and Z boson production in pp collisions at $\sqrt{s} = 5.02$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	17
92	Measurement of $W^{\pm}$ boson production in Pb+Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	17
93	Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking. Journal of High Energy Physics, 2020, 2020, 1.	4.7	17
94	Search for the HH $\rightarrow$ $b\bar{b}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	17
95	Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	17
96	Measurement of differential cross sections and $W^+ / W^+$ cross-section ratios for W boson production in association with jets at $\sqrt{s} = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	16
97	Search for scalar resonances decaying into $\tau^+ \tau^-$ in events with and without b-tagged jets produced in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	15
98	Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions. European Physical Journal C, 2021, 81, 1.	3.9	15
99	Determination of jet calibration and energy resolution in proton-proton collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	15
100	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.	4.7	14
101	Measurements of inclusive and differential fiducial cross-sections of $t\bar{t}\gamma$ production in leptonic final states at $\sqrt{s} = 13$ TeV in ATLAS. European Physical Journal C, 2019, 79, 1.	3.9	14
102	Search for bottom-quark pair production with the ATLAS detector in final states containing Higgs bosons, b-jets and missing transverse momentum. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
103	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.	4.7	14
104	Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 1.	3.9	14
105	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.	4.7	14
106	Search for $t\bar{t}$ 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.	4.7	14
107	Measurement of the c-jet mistagging efficiency in $t\bar{t}$ events using pp collision data at $\sqrt{s} = 13$ TeV collected with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	14
108	Measurement of jet-substructure observables in top quark, W boson and light jet production in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	13

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109	Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	13
110	Observation of the associated production of a top quark and a Z boson in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
111	Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using $\sqrt{s}=13$ TeV proton-proton collisions recorded by ATLAS in Run 2 of the LHC. Journal of High Energy Physics, 2020, 2020, 1.	4.7	12
112	Transverse momentum and process dependent azimuthal anisotropies in $\sqrt{s_{\text{NN}}}=8.16$ TeV p+Pb collisions with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	12
113	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.	3.9	12
114	Search for supersymmetry in events with four or more charged leptons in $139 \text{ fb}^{-1}$ of $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
115	Measurements of the inclusive and differential production cross sections of a top-quark-antiquark pair in association with a Z boson at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	12
116	Search for dark matter in events with missing transverse momentum and a Higgs boson decaying into two photons in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
117	Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1.	3.9	12
118	Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s}=7, 8$ and $13$ TeV. European Physical Journal C, 2022, 82, 1.	3.9	12
119	Measurements of the production cross-section for a Z boson in association with b-jets in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	11
120	Measurement of the $Z\gamma \rightarrow u\bar{u}\gamma$ production cross section in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector and limits on anomalous triple gauge-boson couplings. Journal of High Energy Physics, 2018, 2018, 1.	4.7	10
121	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.	4.7	10
122	Measurement of $J/\psi$ production in association with a $W^{\pm}$ boson with pp data at 8 TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	10
123	Measurement of the $t\bar{t}\gamma$ production cross section in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
124	Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with $139 \text{ fb}^{-1}$ of pp collision data at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	10
125	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. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
126	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. European Physical Journal C, 2019, 79, 1.	3.9	9



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127	Measurement of the $Z(\hat{t}^* \hat{t}, \hat{t}^* \hat{t}, \hat{t}^* \hat{t})^3$ production cross-section in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	9
128	Search for dark matter produced in association with a single top quark in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	9
129	Search for direct top squark pair production in events with a Higgs or Z boson, and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	8
130	Search for large missing transverse momentum in association with one top-quark in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1.	4.7	8
131	Measurement of $W^{\pm}$ -boson and Z-boson production cross-sections in pp collisions at $\sqrt{s} = 2.76$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	8
132	Measurement of differential cross sections for single diffractive dissociation in $\sqrt{s} = 8$ TeV pp collisions using the ATLAS ALFA spectrometer. Journal of High Energy Physics, 2020, 2020, 1.	4.7	8
133	Measurements of $W+W^* + \text{at least } 1$ jet production cross-sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
134	Measurements of differential cross-sections in four-lepton events in 13 TeV proton-proton collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	8
135	Reconstruction and identification of boosted $di\text{-}l_{\tau}$ systems in a search for Higgs boson pairs using 13 TeV proton-proton collision data in ATLAS. Journal of High Energy Physics, 2020, 2020, 1.	4.7	8
136	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 $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2022, 82, 1.	3.9	8
137	Search for dijet resonances in events with an isolated charged lepton using $\sqrt{s} = 13$ TeV proton-proton collision data collected by the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	7
138	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. European Physical Journal C, 2021, 81, 1.	3.9	7
139	Configuration and performance of the ATLAS b-jet triggers in Run 2. European Physical Journal C, 2021, 81, 1.	3.9	7
140	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. European Physical Journal C, 2022, 82, 1.	3.9	7
141	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. Journal of High Energy Physics, 2019, 2019, 1.	4.7	6
142	Measurement of ZZ production in the $\hat{t}, \hat{t}^*, \hat{t}^* \hat{t}^*$ final state with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	6
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144	Performance of the ATLAS Level-1 topological trigger in Run 2. European Physical Journal C, 2022, 82, 1.	3.9	6

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145	Measurement of long-range two-particle azimuthal correlations in Z-boson tagged pp collisions at $\sqrt{s} = 8$ and $13$ TeV. European Physical Journal C, 2020, 80, 1.	3.9	5
146	A search for the decays of stopped long-lived particles at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	5
147	Search for phenomena beyond the Standard Model in events with large b-jet multiplicity using the ATLAS detector at the LHC. European Physical Journal C, 2021, 81, 1.	3.9	5
148	Measurement of the inclusive isolated-photon cross section in pp collisions at $\sqrt{s} = 13$ TeV using $36 \text{ fb}^{-1}$ of ATLAS data. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
149	The ATLAS inner detector trigger performance in pp collisions at $13$ TeV during LHC Run 2. European Physical Journal C, 2022, 82, 1.	3.9	5
150	Search for excited electrons singly produced in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS experiment at the LHC. European Physical Journal C, 2019, 79, 1.	3.9	4
151	Search for direct production of electroweakinos in final states with missing transverse momentum and a Higgs boson decaying into photons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	4
152	Measurement of hadronic event shapes in high-pT multijet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
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154	Measurement of $K_S^0$ and $\Lambda^0$ production in $t\bar{t}$ dileptonic events in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	4
155	Measurement of the energy response of the ATLAS calorimeter to charged pions from $W \rightarrow \mu \nu$ events in Run 2 data. European Physical Journal C, 2022, 82, 1.	3.9	4
156	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.	4.7	4
157	Search for exotic decays of the Higgs boson into long-lived particles in pp collisions at $\sqrt{s} = 13$ TeV using displaced vertices in the ATLAS inner detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
158	Measurement of distributions sensitive to the underlying event in inclusive Z boson production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	3
159	Measurements of inclusive and differential cross-sections of combined $t\bar{t}\gamma$ and $tW^3$ production in the $e^+e^-$ channel at 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	3
160	Measurement of isolated-photon plus two-jet production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	3
161	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $\sqrt{s} = 8$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	3
162	Measurement of b-quark fragmentation properties in jets using the decay $B^{\pm} \rightarrow J/\psi K^{\pm}$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	3

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163	Search for exotic decays of the Higgs boson into $b\bar{b}$ and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
164	Measurement of the energy asymmetry in $t\bar{t}$ production at $\sqrt{s} = 13$ TeV with the ATLAS experiment and interpretation in the SMEFT framework. European Physical Journal C, 2022, 82, .	3.9	2