

Arthur Eugen Bolz

List of Publications by Year in descending order

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103
papers

3,963
citations

109321

35
h-index

138484

58
g-index

109
all docs

109
docs citations

109
times ranked

6650
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Search for new high-mass phenomena in the dilepton final state using 36 fb ⁻¹ of proton-proton collision data at $s = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	168
3	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.	4.7	136
4	Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 199.	3.9	132
5	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
6	Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in 36 fb ⁻¹ of pp collisions at $s = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	116
7	Search for heavy resonances decaying into $W\bar{W}$ in the $e^+e^-\mu^+\mu^-$ final state in pp collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 24.	3.9	108
8	Search for heavy ZZ resonances in the $e^+e^-\mu^+\mu^-$ 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
9	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	3.9	93
10	Measurement of multi-particle azimuthal correlations in pp, pPb and low-multiplicity PbPb collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 428.	3.9	86
11	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
12	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
13	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
14	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	3.9	75
15	Measurement of quarkonium production in proton-lead and proton-proton collisions at $\sqrt{s}=5.02$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 171.	3.9	75
16	A search for pair-produced resonances in four-jet final states at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2018, 78, 250.	3.9	66
17	Evidence for the $H \rightarrow b\bar{b}$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	64
18	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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19	Search for dark matter produced in association with bottom or top quarks in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 18.	3.9	60
20	Measurement of longitudinal flow decorrelations in Pb+Pb collisions at $\sqrt{s_{NN}}=2.76$ and 5.0. European Physical Journal C, 2018, 78, 142.	3.9	59
21	Search for the direct production of charginos and neutralinos in final states with tau leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2018, 78, 154.	3.9	52
22	Search for direct top squark pair production in final states with two leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C, 2017, 77, 898.	3.9	50
23	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.	4.7	49
24	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fb^{-1} of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	48
25	Measurement of the Higgs boson coupling properties in the $H \rightarrow ZZ \rightarrow 4\ell$ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	46
26	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
27	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
28	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
29	Higgs boson production cross-section measurements and their EFT interpretation in the 4ℓ decay channel at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	41
30	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.	4.7	40
31	Measurements of b-jet tagging efficiency with the ATLAS detector using $t\bar{t}$ events at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	40
32	Search for heavy resonances decaying into a pair of Z bosons in the $e^+e^- \rightarrow e^+e^- Z Z$ and $e^+e^- \rightarrow e^+e^- Z \gamma$ final states using 139 fb^{-1} of proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	40
33	Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in $s=13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	38
34	Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	38
35	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
36	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.	4.7	37

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37	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 $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	36
38	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.	4.7	36
39	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.	3.9	36
40	Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector. European Physical Journal C, 2017, 77, 580.	3.9	35
41	Measurements of top-quark pair differential and double-differential cross-sections in the $t\bar{t}+jets$ channel with pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	34
42	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.	3.9	34
43	Determination of the strong coupling constant α_s from transverse energy–energy correlations in multijet events at $\sqrt{s}=8$ TeV. European Physical Journal C, 2017, 77, 872.	3.9	32
44	Measurements of the Higgs boson inclusive and differential fiducial cross sections in the $t\bar{t}$ decay channel at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 1.	3.9	32
45	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.	4.7	31
46	Search for supersymmetry in final states with two same-sign or three leptons and jets using 36 fb ⁻¹ of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
47	Search for W W/Z resonance production in $t\bar{t}$ final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	31
48	Searches for the $Z\tilde{\chi}^0_3$ decay mode of the Higgs boson and for new high-mass resonances in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	30
49	Study of $WW\gamma$ and $WZ\gamma$ production. European Physical Journal C, 2017, 77, 646.	3.9	30
50	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.	4.7	30
51	Evidence for $t\bar{t}$ production in the multilepton final state in proton–proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	30
52	Searches for heavy ZZ and ZW resonances in the $t\bar{t}$, $t\bar{t}+q\bar{q}$ and $t\bar{t}+1/2q\bar{q}$ final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29
53	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
54	Measurement of lepton differential distributions and the top quark mass in $t\bar{t}$. European Physical Journal C, 2017, 77, 804.	3.9	28

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55	Measurement of $WW/WZ \rightarrow \ell \ell' q \bar{q}'$ production with the hadronically decaying boson reconstructed as one or two jets in pp collisions at $\sqrt{s} = 8$ TeV with ATLAS, and constraints on anomalous gauge couplings. European Physical Journal C, 2017, 77, 563.	3.9	28
56	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.	4.7	28
57	Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a τ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
58	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell \ell' \gamma \gamma$ and $\ell \ell' \gamma W$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	26
59	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
60	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
61	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.	3.9	22
62	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
63	Measurement of differential cross-sections of a single top quark produced in association with a W boson at $\sqrt{s} = 13$ TeV with ATLAS. European Physical Journal C, 2018, 78, 186.	3.9	20
64	Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector. European Physical Journal C, 2017, 77, 765.	3.9	19
65	Search for squarks and gluinos in final states with same-sign leptons and jets using 139 fb ⁻¹ of data collected with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	19
66	Measurement of light-by-light scattering and search for axion-like particles with 2.2 nb ⁻¹ of Pb+Pb data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	19
67	Search for top quark decays $t \rightarrow qH$, with $H \rightarrow \tau\tau$, in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	18
68	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
69	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
70	Search for supersymmetry in events with b-tagged jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	17
71	Direct top-quark decay width measurement in the $t \rightarrow \tau \bar{\nu}_\tau$ lepton+jets channel at $\sqrt{s} = 8$ TeV with the ATLAS experiment. European Physical Journal C, 2018, 78, 129.	3.9	17
72	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

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73	Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	16
74	Measurement of differential cross sections and $W+/W\hat{+}$ 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
75	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
76	Studies of $Z\hat{+}^3$ production in association with a high-mass dijet system in pp collisions at $s = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	14
77	Measurement of VH , $\mathit{H}o\overline{\mathit{H}}\mathit{b}$ 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
78	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
79	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
80	Search for \overline{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
81	Search for new phenomena in high-mass final states with a photon and a jet from pp collisions at \sqrt{s} s. European Physical Journal C, 2018, 78, 102.	3.9	13
82	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
83	Search for new phenomena in a lepton plus high jet multiplicity final state with the ATLAS experiment using $s = 13$ TeV proton-proton collision data. Journal of High Energy Physics, 2017, 2017, 1.	4.7	12
84	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
85	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
86	Search for supersymmetry in events with four or more charged leptons in 139 fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
87	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
88	Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1.	3.9	12
89	Search for new phenomena with large jet multiplicities and missing transverse momentum using large-radius jets and flavour-tagging at ATLAS in 13 TeV pp collisions. Journal of High Energy Physics, 2017, 2017, 1.	4.7	11
90	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

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91	Measurement of the $\overline{t}\gamma$ production cross section in proton-proton collisions at $\sqrt{s}=8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	9
92	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
93	Search for direct top squark pair production in events with a Higgs or Z boson, and missing transverse momentum in $s = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	8
94	Measurement of b-hadron pair production with the ATLAS detector in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	8
95	Analysis of the Wtb vertex from the measurement of triple-differential angular decay rates of single top quarks produced in the t-channel at $s = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	8
96	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
97	Reconstruction and identification of boosted $d\bar{t}$ 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
98	Measurement of $\sigma_{\text{au}} \bar{t}$, polarisation in $Z/\gamma \rightarrow \text{au} \text{au} Z/\bar{t}$. European Physical Journal C, 2018, 78, 163.	3.9	7
99	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
100	Measurement of hadronic event shapes in high- p_T multijet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	4
101	Search for top squarks in events with a Higgs or Z boson using 139 fb $^{-1}$ of pp collision data at $\sqrt{s}=13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	4
102	Measurement of the k_t splitting scales in $Z \rightarrow \bar{t}t, \bar{t}t, \bar{t}t$ events in pp collisions at $s = 8$ TeV with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	3
103	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $\sqrt{s} = 8, \sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	3