Thomas Malte Spieker

List of Publications by Year
in descending order

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96 papers	3,267 citations	147786 31 h-index	168376 53 g-index
102 all docs	102 docs citations	102 times ranked	6166 citing authors

#	Article	IF	Citations
1	Performance of the ATLAS Level-1 topological trigger in RunÂ2. European Physical Journal C, 2022, 82, 1.	3.9	6
2	Measurement of the c-jet mistagging efficiency in $$tar{t}$$Âevents using pp collision data at $$sqrt{s}=13$$Â$$ext {TeV}$$ collected with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	14
3	Search for exotic decays of the Higgs boson into b$$ overline{b} $$ 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
4	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 13Â$$ext {TeV}$$ with the ATLAS detector. European Physical Journal C, 2022, 82, 1.	3.9	8
5	Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with 139 fbâˆ’1 of pp collision data at $$ sqrt{s} $$ = 13 TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	10
6	AtlFast3: The Next Generation of Fast Simulation in ATLAS. Computing and Software for Big Science, 2022, 6, 1.	2.9	23
7	Measurement of the energy response of the ATLASÂcalorimeter to chargedÂpions from $$W^{pm }ightarrow au ^{pm }(ightarrow pi ^{pm }u _{au })u _{au }$$ events in RunÂ2 data. European Physical Journal C, 2022, 82, 1.	3.9	4
8	The ATLAS inner detector trigger performance in pp collisions at 13ÂTeV during LHC Run 2. European Physical Journal C, 2022, 82, 1.	3.9	5
9	Search for flavour-changing neutral-current interactions of a top quark and a gluon in pp collisions at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2022, 82, .	3.9	7
10	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
11	Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fbâˆ’1 of $$ sqrt{s} $$ = 13 TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	37
12	Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in protonâ€“proton collisions at ATLAS. European Physical Journal C, 2021, 81, 1.	3.9	12
13	Measurements of WH and ZH production in the $$H ightarrow bar{b}$$ decay channel in pp collisions at $$13,ext {Te}ext {V}$$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	38
14	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
15	Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $$ sqrt{s} = 13,{ext {TeV}} $$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	17
16	Measurement of light-by-light scattering and search for axion-like particles with 2.2 nbâˆ’1 of Pb+Pb data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	19
17	Search for Higgs boson production in association with a high-energy photon via vector-boson fusion with decay into bottom quark pairs at $$ sqrt{s} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	6
18	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

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19	Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum in pp collisions at $$ sqrt{mathrm{s}} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	22
20	Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in protonâ€“proton collisions at $$sqrt{s}$$ = 13ÂTeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	18
21	Optimisation of large-radius jet reconstruction for the ATLAS detector in 13ÂTeV protonâ€“proton collisions. European Physical Journal C, 2021, 81, 1.	3.9	15
22	Search for heavy resonances decaying into a pair of Z bosons in the $$ell ^+ell ^-ell '^+ell '^-$$ and $$ell ^+ell ^-u {{ar{u }}}$$ final states using 139 $$mathrm {fb}^{-1}$$ of protonâ€“proton collisions at $$sqrt{s} = 13,$$TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	40
23	Search for new phenomena in final states with b-jets and missing transverse momentum in $$ sqrt{mathrm{s}} $$ = 13 TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	18
24	Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $$ell ell bb$$ and $$ell ell WW$$ final states in pp collisions at $$sqrt{s}=13$$Â$$ext {TeV}$$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	26
25	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 $$ sqrt{mathrm{s}} $$ = 13 TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	23
26	Measurements of W+Wâˆ’+ â‰¥ 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
27	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.	4.7	46
28	Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $$sqrt{s}=13,ext {TeV}$$. European Physical Journal C, 2021, 81, 1.	3.9	14
29	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.	4.7	27
30	Search for supersymmetry in events with four or more charged leptons in 139 fbâˆ’1 of $$ sqrt{s} $$ = 13 TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	12
31	Determination of the parton distribution functions of the proton from ATLAS measurements of differential WÂ± and Z boson production in association with jets. Journal of High Energy Physics, 2021, 2021, 1.	4.7	10
32	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
33	A search for the decays of stopped long-lived particles at $$ sqrt{mathrm{s}} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	5
34	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
35	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
36	Measurement of single top-quark production in association with a W boson in the single-lepton channel at $$sqrt{s} = 8,ext {TeV}$$ with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	3

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37	Jet energy scale and resolution measured in protonâ€“proton collisions at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	64
38	Measurements of the inclusive and differential production cross sections of a top-quarkâ€“antiquark pair in association with a ZÂboson at $$sqrt{s} = 13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	12
39	Search for dark matter produced in association with a single top quark in $$sqrt{s}=13$$ÂTeV $$pp$$ collisions with the ATLAS detector. European Physical Journal C, 2021, 81, 1.	3.9	9
40	Measurements of top-quark pair single- and double-differential cross-sections in the all-hadronic channel in pp collisions at $$ sqrt{mathrm{s}} $$ = 13 TeV using the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	14
41	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
42	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
43	Search for R-parity-violating supersymmetry in a final state containing leptons and many jets with the ATLAS experiment using $$sqrt{s} = 13hbox { TeV}$$ protonâ€“proton collision data. European Physical Journal C, 2021, 81, 1.	3.9	7
44	Measurement of the t$$ overline{t} $$t$$ overline{t} $$ 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
45	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
46	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
47	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
48	Search for charginoâ€“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.	3.9	28
49	Configuration and performance of the ATLAS b-jet triggers in Run 2. European Physical Journal C, 2021, 81, 1.	3.9	7
50	Measurement of b-quark fragmentation properties in jets using the decay BÂ± â†' J/ÎˆKÂ± in pp collisions at $$ sqrt{s} $$ = 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1.	4.7	3
51	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
52	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
53	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.	3.9	32
54	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.	3.9	34

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55	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
56	Search for the HH â†' $$ boverline{b}boverline{b} $$ 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
57	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
58	Measurements of top-quark pair spin correlations in the $$emu $$ channel at $$sqrt{s} = 13$$ TeV using pp collisions in the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	22
59	Higgs boson production cross-section measurements and their EFT interpretation in the $$4ell $$ decay channel at $$sqrt{s}=$$13ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	41
60	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
61	Search for squarks and gluinos in final states with same-sign leptons and jets using 139 fbâˆ'1 of data collected with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1.	4.7	19
62	Search for $$ toverline{t} $$ 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
63	Reconstruction and identification of boosted di-Ï„ 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
64	Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1.	3.9	93
65	Search for top squarks in events with a Higgs or Z boson using 139Âfb$$^{-1}$$ of pp collision data at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	4
66	Evidence for $$tar{t}tar{t}$$ production in the multilepton final state in protonâ€"proton collisions at $$sqrt{s}=13$$Â$$ext {TeV}$$ with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	30
67	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.	3.9	29
68	Search for a scalar partner of the top quark in the all-hadronic $$t{ar{t}}$$ plus missing transverse momentum final state at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	36
69	Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1.	3.9	12
70	Determination of jet calibration and energy resolution in protonâ€"proton collisions at $$sqrt{s} = 8–hbox {TeV}$$ using the ATLAS detector. European Physical Journal C, 2020, 80, 1.	3.9	15
71	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
72	Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC protonâ€"proton collision data at $$sqrt{s} = 13$$Â$$ext {TeV}$$. European Physical Journal C, 2019, 79, 1.	3.9	77

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73	Measurement of VH, $$ mathrm{H}o mathrm{b}overline{mathrm{b}} $$ 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
74	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.	3.9	42
75	Electron and photon energy calibration with the ATLAS detector using 2015â€“2016 LHC proton-proton collision data. Journal of Instrumentation, 2019, 14, P03017-P03017.	1.2	37
76	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
77	Search for pair production of Higgs bosons in the $$ boverline{b}boverline{b} $$ 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
78	Measurement of fiducial and differential $$W^+W^-$$ production cross-sections at $$sqrt{s}=13$$ÂTeV with the ATLAS detector. European Physical Journal C, 2019, 79, 1.	3.9	24
79	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.	3.9	130
80	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.	3.9	34
81	Measurement of the Higgs boson coupling properties in the H â†' ZZâˆ— â†' 4â„“ decay channel at $$ sqrt{s}=13 $$ TeV with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	46
82	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
83	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.	3.9	181
84	Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fbâˆ'1 of $$ sqrt{s}=13 $$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2018, 2018, 1.	4.7	48
85	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.	3.9	61
86	Measurements of b-jet tagging efficiency with the ATLAS detector using $$ toverline{t} $$ events at $$ sqrt{s}=13 $$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	40
87	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
88	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.	3.9	26
89	Jet reconstruction and performance using particle flow with the ATLAS Detector. European Physical Journal C, 2017, 77, 466.	3.9	145
90	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.	4.7	31

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91	Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2. European Physical Journal C, 2017, 77, 673.	3.9	75
92	Performance of the ATLAS trigger system in 2015. European Physical Journal C, 2017, 77, 317.	3.9	489
93	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.	3.9	80
94	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.	3.9	50
95	Search for direct top squark pair production in events with a Higgs or Z boson, 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.	4.7	8
96	Evidence for the H â†' b b Â¯ $$ Ho boverline{b} $$ decay with the ATLAS detector. Journal of High Energy Physics, 2017, 2017, 1.	4.7	64