

Benjamin Jäger

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

2,010
citations

293460

24
h-index

355658

38
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105
all docs

105
docs citations

105
times ranked

5331
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Performance of the ATLAS Level-1 topological trigger in Run 2. European Physical Journal C, 2022, 82, 1. | 1.4 | 6 |
| 2 | 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, . | 1.4 | 14 |
| 3 | 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. | 1.6 | 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 $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2022, 82, 1. | 1.4 | 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 fb^{-1} of pp collision data at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1. | 1.6 | 10 |
| 6 | AtlFast3: The Next Generation of Fast Simulation in ATLAS. Computing and Software for Big Science, 2022, 6, 1. | 1.3 | 23 |
| 7 | Measurement of the energy response of the ATLAS calorimeter to charged pions from $W^{\pm} \rightarrow \mu^{\pm} \nu_{\mu} (\rightarrow \pi^{\pm} \nu_{\pi}) \nu_{\tau}$ events in Run 2 data. European Physical Journal C, 2022, 82, 1. | 1.4 | 4 |
| 8 | The ATLAS inner detector trigger performance in pp collisions at $\sqrt{s} = 13$ TeV during LHC Run 2. European Physical Journal C, 2022, 82, 1. | 1.4 | 5 |
| 9 | 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, . | 1.4 | 7 |
| 10 | 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, . | 1.4 | 2 |
| 11 | 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. | 1.4 | 12 |
| 12 | 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. | 1.6 | 4 |
| 13 | Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fb^{-1} of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 37 |
| 14 | 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. | 1.4 | 12 |
| 15 | Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ decay channel in pp collisions at $\sqrt{s} = 13, 8$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1. | 1.4 | 38 |
| 16 | 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. | 1.6 | 18 |
| 17 | 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. | 1.4 | 17 |
| 18 | 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. | 1.6 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | 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. | 1.6 | 6 |
| 20 | 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. | 1.6 | 14 |
| 21 | 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. | 1.6 | 22 |
| 22 | 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. | 1.4 | 18 |
| 23 | Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions. European Physical Journal C, 2021, 81, 1. | 1.4 | 15 |
| 24 | Search for heavy resonances decaying into a pair of Z bosons in the $e^+e^- \rightarrow e^+e^- Z Z$ and $e^+e^- \rightarrow e^+e^- u \bar{u}$ 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. | 1.4 | 40 |
| 25 | 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. | 1.6 | 18 |
| 26 | Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $e^+e^- \rightarrow b\bar{b} H$ and $e^+e^- \rightarrow W W H$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2021, 81, 1. | 1.4 | 26 |
| 27 | 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. | 1.6 | 23 |
| 28 | Measurements of $W+W\gamma+1$ jet production cross-sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 8 |
| 29 | 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. | 1.6 | 46 |
| 30 | 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. | 1.4 | 14 |
| 31 | Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a \bar{l}_τ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 27 |
| 32 | 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. | 1.6 | 12 |
| 33 | 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. | 1.6 | 10 |
| 34 | 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. | 1.6 | 8 |
| 35 | 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. | 1.6 | 5 |
| 36 | Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 1. | 1.4 | 82 |

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|----|--|-----|-----------|
| 37 | 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. | 1.4 | 13 |
| 38 | 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. | 1.4 | 3 |
| 39 | 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. | 1.4 | 64 |
| 40 | 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. | 1.4 | 12 |
| 41 | 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. | 1.4 | 9 |
| 42 | 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. | 1.6 | 14 |
| 43 | 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. | 1.4 | 5 |
| 44 | 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. | 1.6 | 12 |
| 45 | 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. | 1.4 | 7 |
| 46 | Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 10 |
| 47 | 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. | 1.6 | 10 |
| 48 | 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. | 1.6 | 4 |
| 49 | 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. | 1.6 | 4 |
| 50 | 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. | 1.4 | 28 |
| 51 | Configuration and performance of the ATLAS b-jet triggers in Run 2. European Physical Journal C, 2021, 81, 1. | 1.4 | 7 |
| 52 | Measurement of b-quark fragmentation properties in jets using the decay $B \rightarrow \tau^+ J/\psi K^{\pm}$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 3 |
| 53 | Measurements of inclusive and differential cross-sections of combined $t\bar{t}\gamma$ and tW production in the $e\bar{\nu}_e$ channel at 13 TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 3 |
| 54 | Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 17 |

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|----|--|-----|-----------|
| 55 | Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 24 |
| 56 | Measurements of the Higgs boson inclusive and differential fiducial cross sections in the 4ℓ decay channel at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2020, 80, 1. | 1.4 | 32 |
| 57 | 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. | 1.6 | 8 |
| 58 | 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. | 1.6 | 3 |
| 59 | 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. | 1.6 | 11 |
| 60 | 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. | 1.6 | 17 |
| 61 | 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. | 1.6 | 12 |
| 62 | Measurement of the transverse momentum distribution of Drell-Yan lepton pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. European Physical Journal C, 2020, 80, 1. | 1.4 | 28 |
| 63 | 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. | 1.6 | 4 |
| 64 | 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. | 1.6 | 12 |
| 65 | 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. | 1.4 | 41 |
| 66 | Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 36 |
| 67 | 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. | 1.6 | 19 |
| 68 | 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. | 1.6 | 7 |
| 69 | Measurement of the $Z(\tau^+\tau^-, \tau^+\tau^0, \tau^0\tau^0)$ production cross-section in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 9 |
| 70 | Transverse momentum and process dependent azimuthal anisotropies in $\sqrt{s} = 8.16$ TeV p+Pb collisions with the ATLAS detector. European Physical Journal C, 2020, 80, 1. | 1.4 | 12 |
| 71 | Search for new resonances in mass distributions of jet pairs using 139 fb ⁻¹ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2020, 2020, 1. | 1.6 | 68 |
| 72 | Search for $\overline{t}t$ 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. | 1.6 | 14 |

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|----|--|-----|-----------|
| 73 | Reconstruction and identification of boosted di- τ 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. | 1.6 | 8 |
| 74 | Performance of electron and photon triggers in ATLAS during LHC Run 2. European Physical Journal C, 2020, 80, 1. | 1.4 | 93 |
| 75 | 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. | 1.4 | 124 |
| 76 | 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. | 1.4 | 4 |
| 77 | 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. | 1.4 | 30 |
| 78 | 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. | 1.4 | 29 |
| 79 | 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. | 1.4 | 21 |
| 80 | 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. | 1.4 | 36 |
| 81 | Alignment of the ATLAS Inner Detector in Run 2. European Physical Journal C, 2020, 80, 1. | 1.4 | 12 |
| 82 | Search for diboson resonances in hadronic final states in 139 fb $^{-1}$ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1. | 1.6 | 20 |
| 83 | Identification of boosted Higgs bosons decaying into b-quark pairs with the ATLAS detector at 13 TeV. European Physical Journal C, 2019, 79, . | 1.4 | 21 |
| 84 | 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. | 1.4 | 3 |
| 85 | Measurement of the top-quark mass in $\overline{t} + 1$ -jet events collected with the ATLAS detector in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1. | 1.6 | 27 |
| 86 | 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. | 1.4 | 8 |
| 87 | 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. | 1.4 | 9 |
| 88 | Search for heavy neutral leptons in decays of W bosons produced in 13 TeV pp collisions using prompt and displaced signatures with the ATLAS detector. Journal of High Energy Physics, 2019, 2019, 1. | 1.6 | 50 |
| 89 | 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. | 1.4 | 17 |
| 90 | 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. | 1.4 | 130 |

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|----|---|-----|-----------|
| 91 | Measurement of flow harmonics correlations with mean transverse momentum in lead–lead and proton–lead collisions at $\sqrt{s_{\mathrm{NN}}} = 5.02$ – $hbox {TeV}$ with the ATLAS detector. European Physical Journal C, 2019, 79, 1. | 1.4 | 36 |
| 92 | 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. | 1.4 | 34 |
| 93 | Search for bottom-squark 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. | 1.6 | 14 |
| 94 | Measurement of the inclusive isolated-photon cross section in pp collisions at $\sqrt{s} = 13$ TeV using 36 fb^{-1} of ATLAS data. Journal of High Energy Physics, 2019, 2019, 1. | 1.6 | 5 |
| 95 | Measurement of K_S^0 and Λ^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. | 1.4 | 4 |