

Johan Borg

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6088416/publications.pdf>

Version: 2024-02-01

91
papers

1,884
citations

279798

23
h-index

289244

40
g-index

94
all docs

94
docs citations

94
times ranked

5511
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraction and validation of a new set of CMS pythia8 tunes from underlying-event measurements. European Physical Journal C, 2020, 80, 4.	3.9	198
2	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$ in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
3	Search for high-mass resonances in dilepton final states in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	86
4	Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of Instrumentation, 2020, 15, P10017-P10017.	1.2	84
5	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2020, 80, 75.	3.9	78
6	Searches for physics beyond the standard model with the M_{T2} variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2020, 80, 3.	3.9	70
7	Measurement of the $\sigma(\text{pp} \rightarrow t\bar{t})$ production cross section, the top quark mass, and the strong coupling constant using dilepton events in pp collisions at $\sqrt{s} = 13 \text{ TeV}$. European Physical Journal C, 2019, 79, 368.	3.9	68
8	Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	62
9	Measurements of Higgs boson properties in the diphoton decay channel in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	57
10	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2021, 81, 378.	3.9	40
11	Measurement of differential cross sections for Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2018, 78, 965.	3.9	39
12	Evidence for associated production of a Higgs boson with a top quark pair in final states with electrons, muons, and hadronically decaying τ , leptons at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
13	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2021, 81, 488.	3.9	35
14	Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2021, 81, 13.	3.9	33
15	Search for top squark pair production using dilepton final states in collision data collected at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2021, 81, 3.	3.9	33
16	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s} = 13, \text{TeV}$. European Physical Journal C, 2019, 79, 280.	3.9	29
17	Search for $\text{H} \rightarrow \text{bb}$ production in the $\text{H} \rightarrow \text{bb}$ decay channel with leptonic $\text{H} \rightarrow \text{bb}$ decays in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
18	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28

#	ARTICLE	IF	CITATIONS
19	Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 291.	3.9	27
20	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of Instrumentation, 2020, 15, P02027-P02027.	1.2	27
21	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
22	Search for high-mass resonances in final states with a lepton and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	25
23	Measurements of $\mathcal{P} \rightarrow \mathcal{Z}$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 200.	3.9	24
24	An Ultrasonic Transducer Interface IC With Integrated Push-Pull 40 Vpp, 400 mA Current Output, 8-bit DAC and Integrated HV Multiplexer. IEEE Journal of Solid-State Circuits, 2011, 46, 475-484.	5.4	21
25	A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution. Computing and Software for Big Science, 2020, 4, 10.	2.9	21
26	Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. Journal of High Energy Physics, 2020, 2020, 1.	4.7	21
27	Search for $\overline{t}tH$ production in the all-jet final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
28	Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
29	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	20
30	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 723.	3.9	19
31	A Model for MOS Diodes With V_{th} Cancellation in RFID Rectifiers. IEEE Transactions on Circuits and Systems II: Express Briefs, 2012, 59, 761-765.	3.0	18
32	Measurement of the differential Drell-Yan cross section in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	18
33	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 629.	3.9	18
34	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 970.	3.9	18
35	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2022, 82, 290.	3.9	18
36	Search for Z^3 resonances using leptonic and hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	17

#	ARTICLE	IF	CITATIONS
37	Measurement of charged particle spectra in minimum-bias events from proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2018, 78, 697.	3.9	17
38	Search for dark matter produced in association with a single top quark or a top quark pair in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	17
39	Search for black holes and sphalerons in high-multiplicity final states in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	14
40	Measurements of the pp \rightarrow WZ inclusive and differential production cross sections and constraints on charged anomalous triple gauge couplings at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	14
41	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in $\sqrt{s_{NN}}=2.76$ and 5.02 TeV collisions at $\sqrt{s_{NN}}=2.76$ and 5.02 TeV. European Physical Journal C, 2020, 80, 534.	3.9	14
42	Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2020, 2020, 1.	4.7	14
43	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2022, 82, 153.	3.9	14
44	Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
45	Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	13
46	Search for decays of stopped exotic long-lived particles produced in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
47	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0$ or $\tilde{\chi}_1^\pm$ at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
48	Search for heavy resonances decaying into two Higgs bosons or into a Higgs boson and a W or Z boson in proton-proton collisions at 13 TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	12
49	Development and validation of HERWIG tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
50	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	12
51	Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos and b quarks at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	11
52	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u\bar{u}q\bar{q}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	4.7	10
53	A lab-on-a-chip for hypoxic patch clamp measurements combined with optical tweezers and spectroscopy- first investigations of single biological cells. BioMedical Engineering OnLine, 2015, 14, 36.	2.7	9
54	Search for a heavy vector resonance decaying to a $Z\gamma$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9

#	ARTICLE	IF	CITATIONS
55	3J-3 Reciprocal Operation of Ultrasonic Transducers: Experimental Results. , 2006, , .		8
56	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2q$ final states at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	8
57	An active MOS diode with V_{th} -cancellation for RFID rectifiers. , 2012, , .		7
58	Performance and Spatial Sensitivity Variations of Single-Photon Avalanche Diodes Manufactured in an Image Sensor CMOS Process. IEEE Electron Device Letters, 2015, 36, 1118-1120.	3.9	7
59	High-temperature characterisation and analysis of leakage-current-compensated, low-power bandgap temperature sensors. Analog Integrated Circuits and Signal Processing, 2017, 93, 137-147.	1.4	7
60	Time-to-digital converter based on analog time expansion for 3D time-of-flight cameras. , 2014, , .		6
61	Leakage current compensation for a 450 nW, high-temperature, bandgap temperature sensor. , 2015, , .		6
62	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	6
63	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	6
64	Simulation of post-ADC digital beamforming for large aperture array radars. Radio Science, 2010, 45, n/a-n/a.	1.6	5
65	Evaluation of a Surface-Channel CCD Manufactured in a Pinned Active-Pixel-Sensor CMOS Process. IEEE Transactions on Electron Devices, 2011, 58, 2660-2664.	3.0	5
66	A Measurement System for the Position and Phase Errors of the Elements in an Antenna Array Subject to Mutual Coupling. International Journal of Antennas and Propagation, 2012, 2012, 1-8.	1.2	5
67	Single chip wireless condition monitoring of power semiconductor modules. , 2015, , .		5
68	Search for the pair production of light top squarks in the $e^+e^- \rightarrow t\bar{t}$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
69	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	3.9	5
70	Search for flavor-changing neutral current interactions of the top quark and the Higgs boson decaying to a bottom quark-antiquark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5
71	Search for long-lived particles decaying into muon pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV collected with a dedicated high-rate data stream. Journal of High Energy Physics, 2022, 2022, .	4.7	5
72	Measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5

#	ARTICLE	IF	CITATIONS
73	Search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	5
74	A CMOS front-end for RFID transponders using multiple coil antennas. Analog Integrated Circuits and Signal Processing, 2015, 83, 149-159.	1.4	4
75	Search for higgsinos decaying to two Higgs bosons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	4.7	4
76	Design of Voltage Multipliers for Maximized DC Generation in Inductively Coupled RFID Tags. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 3309-3317.	5.4	3
77	Maximal Q Factor for an On-Chip, Fuse-Based Trimmable Capacitor. Electronics (Switzerland), 2019, 8, 62.	3.1	3
78	High frequency limitations of active rectifier circuits for RFID applications. , 2016, , .		2
79	Development of a Gas-Tight Microfluidic System for Raman Sensing of Single Pulmonary Arterial Smooth Muscle Cells Under Normoxic/Hypoxic Conditions. Sensors, 2018, 18, 3238.	3.8	2
80	Chip-coil design for wireless power transfer in power semiconductor modules. , 2018, , .		2
81	Measurements of angular distance and momentum ratio distributions in three-jet and $\{Z\}$ + two-jet final states in $\{p\}\{p\}$ collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
82	Search for a heavy resonance decaying into a top quark and a W boson in the lepton+jets final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
83	Measurement of the inclusive $\overline{\text{t}}\text{t}$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
84	Search for heavy resonances decaying to a pair of Lorentz-boosted Higgs bosons in final states with leptons and a bottom quark pair at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2022, 2022, .	4.7	2
85	Simulation of Post-ADC Digital Beam-Forming for Large Area Radar Receiver Arrays. , 2006, , .		1
86	Study of dijet events with large rapidity separation in proton-proton collisions at $\sqrt{s} = 2.76$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	1
87	Observation of $B^0 \rightarrow \text{Supsi}(2S)K^0_{\text{uppi}} + \text{uppi}^-$ and $B^0_{\text{uppi}} \rightarrow \text{Supsi}(2S)K^0_{\text{uppi}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1
88	Design considerations for the EISCAT_3D phased array antenna. , 2014, , .		0
89	Time stretcher for a time-to-digital converter with a precisely matched current mirror. , 2014, , .		0
90	Delay Insensitive Signal-Injection Calibration for Large Antenna Arrays Using Passive Hierarchical Networks. IEEE Transactions on Antennas and Propagation, 2017, 65, 190-195.	5.1	0

#	ARTICLE	IF	CITATIONS
91	Load-dependent power transfer efficiency for on-chip coils. Analog Integrated Circuits and Signal Processing, 2021, 109, 611-624.	1.4	0