

# Christoph Garbers

## List of Publications by Year in descending order

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39  
papers

875  
citations

430874

18  
h-index

477307

29  
g-index

40  
all docs

40  
docs citations

40  
times ranked

4668  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Search for long-lived particles decaying to leptons with large impact parameter in proton-proton collisions at $\sqrt{s} = 13$ , ext {TeV} ext {V}. European Physical Journal C, 2022, 82, 153.	3.9	14
4	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
5	Search for low-mass dilepton resonances in Higgs boson decays to four-lepton final states in proton-proton collisions at $\sqrt{s} = 13$ , ext {TeV}. European Physical Journal C, 2022, 82, 290.	3.9	18
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	Observation of $B^0 \rightarrow \text{supersymmetry}(2S)K^0_{\text{lepton}} \text{uppi}^+ \text{uppi}^-$ and $B^0_{\text{lepton}} \rightarrow \text{supersymmetry}(2S)K^0_{\text{lepton}}$ decays. European Physical Journal C, 2022, 82, .	3.9	1
17	Search for dark matter produced in association with a leptonically decaying $Z$ boson in proton-proton collisions at $\sqrt{s} = 13$ , ext {TeV} ext {V}. European Physical Journal C, 2021, 81, 13.	3.9	33
18	Search for top squark pair production using dilepton final states in $\text{pp} \rightarrow \text{pp}$ collision data collected at $\sqrt{s} = 13$ , ext {TeV}. European Physical Journal C, 2021, 81, 3.	3.9	33

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19	Measurements of $\sigma(\text{pp} \rightarrow \text{ZZ})$ production cross sections and constraints on anomalous triple gauge couplings at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 200.	3.9	24
20	Development and validation of HERWIG tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
21	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 378.	3.9	40
22	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 488.	3.9	35
23	Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2021, 2021, 1.	4.7	27
24	MUSIC: a model-unspecific search for new physics in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 629.	3.9	18
25	Search for a heavy vector resonance decaying to a $\text{ZZ}$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 688.	3.9	9
26	Search for charged Higgs bosons produced in vector boson fusion processes and decaying into vector boson pairs in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 723.	3.9	19
27	Measurements of angular distance and momentum ratio distributions in three-jet and $\text{ZZ} + \text{two-jet}$ final states in $\text{pp}$ collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
28	Precision luminosity measurement in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ in 2015 and 2016 at CMS. European Physical Journal C, 2021, 81, 800.	3.9	123
29	Combined searches for the production of supersymmetric top quark partners in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2021, 81, 970.	3.9	18
30	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
31	Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . Journal of Instrumentation, 2020, 15, P02027-P02027.	1.2	27
32	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
33	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
34	Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13 \text{ TeV}$ . Journal of High Energy Physics, 2020, 2020, 1.	4.7	20
35	Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in $\text{PbPb}$ collisions at $\sqrt{s_{NN}} = 2.76$ and $5.02, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2020, 80, 534.	3.9	14
36	Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13, \text{ext } \{\text{TeV}\}$ . European Physical Journal C, 2020, 80, 75.	3.9	78

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37	Searches for physics beyond the standard model with the $M_{\mathrm{T}2}$ variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 3.	3.9	70
38	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
39	Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28