

Saranya Ghosh

List of Publications by Year in descending order

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76
papers

3,655
citations

147801

31
h-index

128289

60
g-index

77
all docs

77
docs citations

77
times ranked

6127
citing authors

#	ARTICLE	IF	CITATIONS
1	Precise determination of the mass of the Higgs boson and tests of compatibility of its couplings with the standard model predictions using proton collisions at 7 and 8 TeV. European Physical Journal C, 2015, 75, 212.	3.9	541
2	Event generator tunes obtained from underlying event and multiparton scattering measurements. European Physical Journal C, 2016, 76, 155.	3.9	499
3	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

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#	ARTICLE	IF	CITATIONS
19	Search for the associated production of the Higgs boson with a top-quark pair. Journal of High Energy Physics, 2014, 2014, 1.	4.7	51
20	Identification techniques for highly boosted W bosons that decay into hadrons. Journal of High Energy Physics, 2014, 2014, 1.	4.7	43
21	Search for natural and split supersymmetry in proton-proton collisions at $\sqrt{s}=13$ TeV in final states with jets and missing transverse momentum. Journal of High Energy Physics, 2018, 2018, 1.	4.7	43
22	Measurement of the Higgs boson production rate in association with top quarks in final states with electrons, muons, and hadronically decaying tau leptons at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 378.	3.9	40
23	Measurement of differential cross sections for Z boson production in association with jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2018, 78, 965.	3.9	39
24	Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2017, 77, 636.	3.9	38
25	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 $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	38
26	Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 488.	3.9	35
27	Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 13.	3.9	33
28	Search for top squark pair production using dilepton final states in collision data collected at $\sqrt{s}=13$ TeV. European Physical Journal C, 2021, 81, 3.	3.9	33
29	Measurements of the Z production cross sections in the 2μ channel in proton-proton collisions at $\sqrt{s} = 7$ and 8 . European Physical Journal C, 2015, 75, 511.	3.9	32
30	Searches for pair production of third-generation squarks in $\sqrt{s}=13$ TeV pp collisions. European Physical Journal C, 2017, 77, 327.	3.9	32
31	Search for top squark pair production in pp collisions at $\sqrt{s}=13$ TeV using single lepton events. Journal of High Energy Physics, 2017, 2017, 1.	4.7	31
32	A multi-dimensional search for new heavy resonances decaying to boosted W , Z , or Z boson pairs in the dijet final state at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 237.	3.9	31
33	Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	29
34	Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2019, 79, 280.	3.9	29
35	Search for $t\bar{t}H$ production in the $H \rightarrow b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	28
36	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

#	ARTICLE	IF	CITATIONS
37	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
38	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
39	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
40	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
41	Measurements of $\text{pp} \rightarrow \text{ZZ}$ 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
42	Search for direct production of supersymmetric partners of the top quark in the all-jets final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2017, 2017, 1.	4.7	22
43	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
44	Search for $\text{t}\overline{\text{t}}\text{H}$ 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
45	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
46	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
47	Measurement of differential and integrated fiducial cross sections for Higgs boson production in the four-lepton decay channel in pp collisions at $\sqrt{s} = 7$ and 8 TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
48	Search for a very light NMSSM Higgs boson produced in decays of the 125 GeV scalar boson and decaying into $l\bar{l}$, leptons in pp collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	19
49	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
50	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
51	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
52	Probing color coherence effects in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2014, 74, 2901.	3.9	17
53	Search for $Z\tilde{1}^3$ 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
54	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

#	ARTICLE	IF	CITATIONS
55	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
56	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
57	Search for the associated production of a Higgs boson with a single top quark in proton-proton collisions at $s = 8 \sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	13
58	Measurement of the underlying event activity in inclusive Z boson production in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
59	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
60	Jet properties in PbPb and pp collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
61	Comparing transverse momentum balance of b jet pairs in pp and PbPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
62	Search for dark matter produced in association with a Higgs boson decaying to $\tilde{\chi}_1^0$ or $\tilde{\chi}_1^\pm, \tilde{\chi}_2^0$ at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	12
63	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
64	Development and validation of HERWIG ⁷ tunes from CMS underlying-event measurements. European Physical Journal C, 2021, 81, 312.	3.9	12
65	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
66	Search for a heavy resonance decaying to a pair of vector bosons in the lepton plus merged jet final state at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	11
67	Search for a heavy resonance decaying into a Z boson and a vector boson in the $u \overline{u} \mathcal{Q} \overline{\mathcal{Q}}$ final state. Journal of High Energy Physics, 2018, 2018, 1.	4.7	10
68	Search for lepton-flavor violating decays of heavy resonances and quantum black holes to $e\tau$ final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	9
69	Search for a heavy vector resonance decaying to a $Z_{\text{eff}}^{\text{Higgs}}$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13, \sqrt{s} = 13, \sqrt{s} = 13$ TeV. European Physical Journal C, 2021, 81, 688.	3.9	9
70	Search for a heavy resonance decaying into a Z boson and a Z or W boson in $2q, 2q$ final states at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2018, 2018, 1.	4.7	8
71	Search for direct pair production of scalar top quarks in the single- and dilepton channels in proton-proton collisions at $s = 8 \sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2016, 2016, 1.	4.7	7
72	Search for the associated production of the Higgs boson with a top-quark pair. , 2014, 2014, 1.		6

#	ARTICLE	IF	CITATIONS
73	Search for the pair production of light top squarks in the $e^{\pm} \mu^{\pm}$ final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	5
74	Measurements of the $(\text{pp}) \rightarrow \text{ZZ}$ production cross section and the $(\text{ZZ}) \rightarrow 4\ell$ branching fraction, and constraints on anomalous triple gauge couplings at $(\sqrt{s} = 13, \text{TeV})$. , 2018, 78, 1.		3
75	Measurements of angular distance and momentum ratio distributions in three-jet and ZZ + two-jet final states in pp collisions. European Physical Journal C, 2021, 81, 852.	3.9	2
76	Highlights from the Compact Muon Solenoid (CMS) Experiment. Universe, 2019, 5, 28.	2.5	1