

Jan Kaspar

List of Publications by Year in descending order

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94
papers

2,513
citations

257450

24
h-index

197818

49
g-index

98
all docs

98
docs citations

98
times ranked

5837
citing authors

#	ARTICLE	IF	CITATIONS
1	First measurement of the total proton-proton cross-section at the LHC energy of $\sqrt{s} = 7, \text{TeV}$. Europhysics Letters, 2011, 96, 21002.	2.0	236
2	Measurement of proton-proton elastic scattering and total cross-section at $\sqrt{s} = 7, \text{TeV}$. Europhysics Letters, 2013, 101, 21002.	2.0	197
3	Luminosity-Independent Measurement of the Proton-Proton Total Cross Section at $\sqrt{s} = 7, \text{TeV}$. Physical Review Letters, 2013, 111, 012001.	7.8	187
4	Luminosity-independent measurements of total, elastic and inelastic cross-sections at $\sqrt{s} = 7, \text{TeV}$. Europhysics Letters, 2013, 101, 21004.	2.0	176
5	Proton-proton elastic scattering at the LHC energy of $\sqrt{s} = 7, \text{TeV}$. Europhysics Letters, 2011, 95, 41001.	2.0	150
6	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
7	Evidence for non-exponential elastic proton-proton differential cross-section at low $ t $ and $\sqrt{s} = 13, \text{TeV}$ by TOTEM. Nuclear Physics B, 2015, 899, 527-546.	3.9	108
8	The TOTEM Experiment at the CERN Large Hadron Collider. Journal of Instrumentation, 2008, 3, S08007-S08007.	1.2	108
9	Measurement of elastic pp scattering at $\sqrt{s} = 8 \text{ TeV}$ in the Coulomb-nuclear interference region: determination of the ρ -parameter and the total cross-section. European Physical Journal C, 2016, 76, 1.	3.9	88
10	Measurement of proton-proton inelastic scattering cross-section at $\sqrt{s} = 7, \text{TeV}$. Europhysics Letters, 2013, 101, 21003.	2.0	70
11	First measurement of elastic, inelastic and total cross-section at $\sqrt{s} = 13 \text{ TeV}$ by TOTEM and overview of cross-section data at LHC energies. European Physical Journal C, 2019, 79, 1.	3.9	70
12	First determination of the ρ parameter at $\sqrt{s} = 13 \text{ TeV}$: probing the existence of a colourless C-odd three-gluon compound state. European Physical Journal C, 2019, 79, 1.	3.9	69
13	Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum. Journal of High Energy Physics, 2019, 2019, 1.	4.7	54
14	Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at $\sqrt{s} = 8 \text{ TeV}$ by the CMS and TOTEM experiments. European Physical Journal C, 2014, 74, 1.	3.9	49
15	Elastic differential cross-section measurement at $\sqrt{s} = 13 \text{ TeV}$ by TOTEM. European Physical Journal C, 2019, 79, 1.	3.9	46
16	Odderon Exchange from Elastic Scattering Differences between $p p$ and $p \bar{p}$ at $\sqrt{s} = 1.96 \text{ TeV}$ and from $p p$ Data at 1.96 TeV and from $p \bar{p}$ Data at 1.96 TeV . Physical Review Letters, 2013, 111, 012001.	7.8	37
17	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
18	Measurement of the forward charged-particle pseudorapidity density in $p p$ collisions at $\sqrt{s} = 7 \text{ TeV}$ with the TOTEM experiment. Europhysics Letters, 2012, 98, 31002.	2.0	34

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19	Double Diffractive Cross-Section Measurement in the Forward Region at the LHC. Physical Review Letters, 2013, 111, 262001.	7.8	34
20	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
21	Observation of proton-tagged, central (semi)exclusive production of high-mass lepton pairs in pp collisions at 13 TeV with the CMS-TOTEM precision proton spectrometer. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29
22	Elastic differential cross-section $d\sigma/dt$ at $\sqrt{s}=2.76$ TeV and implications on the existence of a colourless C-odd three-gluon compound state. European Physical Journal C, 2020, 80, 1.	3.9	29
23	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
24	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
25	Search for physics beyond the standard model in events with jets and two same-sign or at least three charged leptons in proton-proton collisions at $\sqrt{s}=13$ TeV. European Physical Journal C, 2020, 80, 752.	3.9	23
26	Phenomenological models of elastic nucleon scattering and predictions for LHC. Nuclear Physics B, 2011, 843, 84-106.	2.5	22
27	Elastic Scattering and Total Cross-Section in p+p Reactions. Progress of Theoretical Physics Supplement, 2012, 193, 180-183.	0.1	21
28	PERFORMANCE OF THE TOTEM DETECTORS AT THE LHC. International Journal of Modern Physics A, 2013, 28, 1330046.	1.5	20
29	Diamond detectors for the TOTEM timing upgrade. Journal of Instrumentation, 2017, 12, P03007-P03007.	1.2	20
30	DEEP-ELASTIC pp SCATTERING AT LHC FROM LOW-x GLUONS. Modern Physics Letters A, 2009, 24, 485-496.	1.2	19
31	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
32	Final size planar edgeless silicon detectors for the TOTEM experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 563, 41-44.	1.6	18
33	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
34	Relation between the extreme angular and areal distortion in cartographic representation. Studia Geophysica Et Geodaetica, 1981, 25, 132-151.	0.5	16
35	Search for anomalous triple gauge couplings in WW and WZ production in lepton + jet events in proton-proton collisions at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	15
36	Characteristics of edgeless silicon detectors for the Roman Pots of the TOTEM experiment at the LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 242-245.	1.6	14

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37	LHC optics measurement with proton tracks detected by the Roman pots of the TOTEM experiment. <i>New Journal of Physics</i> , 2014, 16, 103041.	2.9	13
38	Measurement of the forward charged particle pseudorapidity density in pp collisions at $\sqrt{s} = 8\text{ TeV}$ using a displaced interaction point. <i>European Physical Journal C</i> , 2015, 75, 1.	3.9	13
39	Search for dark photons in decays of Higgs bosons produced in association with Z bosons in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	13
40	Search for supersymmetry in final states with two or three soft leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	13
41	The TOTEM detector at LHC. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 617, 62-66.	1.6	12
42	Measurement of the average very forward energy as a function of the track multiplicity at central pseudorapidities in proton-proton collisions at $\sqrt{s}=13\text{ TeV}$. <i>European Physical Journal C</i> , 2019, 79, 893.	3.9	12
43	Search for a right-handed W boson and a heavy neutrino in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	12
44	Search for the production of four top quarks in the single-lepton and opposite-sign dilepton final states in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	11
45	Effect of energy scale imperfections on results of neutrino mass measurements from \hat{I}^2 -decay. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 527, 423-431.	1.6	10
46	Search for resonances decaying to a pair of Higgs bosons in the $b\bar{q}q$ final state in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	10
47	Reducing Beam-Related Background on Forward Physics Detectors Using Crystal Collimation at the Large Hadron Collider. <i>Physical Review Applied</i> , 2020, 14, .	3.8	9
48	Les formes différentielles extérieures dans la géométrie II: Courbure moyenne. <i>Studia Geophysica Et Geodaetica</i> , 1971, 15, 106-112.	0.5	7
49	A contribution to the migration of gold in the biosphere of the humid mild zone. <i>Chemical Geology</i> , 1972, 10, 299-305.	3.3	6
50	On the stochastic relations between the points of a geodetic network. <i>Studia Geophysica Et Geodaetica</i> , 1974, 18, 19-32.	0.5	6
51	Inclusive and differential cross section measurements of single top quark production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	6
52	Characterisation of the dip-bump structure observed in proton-proton elastic scattering at $\sqrt{s} = 8\text{ TeV}$. <i>European Physical Journal C</i> , 2022, 82, 1.	3.9	6
53	Search for heavy resonances decaying to ZZ or ZW and axion-like particles mediating nonresonant ZZ or ZH production at $\sqrt{s} = 13\text{ TeV}$. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	6
54	The problem of the system of height reference in determining the settling of foundations and buildings. <i>Studia Geophysica Et Geodaetica</i> , 1974, 18, 33-46.	0.5	5

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55	Measurement of single-diffractive dijet production in proton-proton collisions at $\sqrt{s} = 8, \sqrt{s} = 13$ TeV with the CMS and TOTEM experiments. European Physical Journal C, 2020, 80, 1164.	3.9	5
56	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
57	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
58	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
59	Les formes différentielles extérieures dans la géométrie I: Courbure de Gauss. Studia Geophysica Et Geodaetica, 1971, 15, 1-6.	0.5	4
60	The development of a super-stable datum point for monitoring the energy scale of electron spectrometers in the energy range up to 20 keV. Measurement Techniques, 2010, 53, 305-312.	0.6	4
61	Feasibility of photoelectron sources with sharp lines of stable energy between 20 and 80keV. Applied Radiation and Isotopes, 2011, 69, 672-677.	1.5	4
62	Elegant "An elastic event generator. Computer Physics Communications, 2014, 185, 1081-1084.	7.5	4
63	Declarative Big Data Analysis for High-Energy Physics: TOTEM Use Case. Lecture Notes in Computer Science, 2019, , 241-255.	1.3	4
64	Search for supersymmetry using Higgs boson to diphoton decays at $\sqrt{s} = 13$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	4
65	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
66	La fonction d'appui dans les formules de la géométrie mathématique. Studia Geophysica Et Geodaetica, 1971, 15, 241-245.	0.5	3
67	Soft diffraction at LHC. EPJ Web of Conferences, 2018, 172, 06005.	0.3	3
68	Study of the $\mathcal{B}(\text{B}^+ \rightarrow \text{J}/\psi \overline{\Lambda} \text{p})$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV. Journal of High Energy Physics, 2019, 2019, 1.	4.7	3
69	Konforme Abbildung einer Fläche auf eine Andere unter Wählbaren Bedingungen. Studia Geophysica Et Geodaetica, 1962, 6, 105-139.	0.5	2
70	Performance of almost edgeless silicon detectors in CTS and 3D-planar technologies. Journal of Instrumentation, 2013, 8, P06009-P06009.	1.2	2
71	Big Data Tools and Cloud Services for High Energy Physics Analysis in TOTEM Experiment. , 2018, , .		2
72	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

#	ARTICLE	IF	CITATIONS
73	Measurement of the inclusive $\sigma(\text{t}\overline{\text{t}})$ production cross section in proton-proton collisions at $\sqrt{s} = 5.02$ TeV. Journal of High Energy Physics, 2022, 2022, 1.	4.7	2
74	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
75	Anwendung der Abbildung einer Rotationsfläche auf eine Kugel für die Übertragung von Koordinaten bei Größeren Entfernungen Zwischen den Punkten. Studia Geophysica Et Geodaetica, 1957, 1, 197-224.	0.5	1
76	Entwurf eines zweckmäßigen Koordinatensystems auf der Approximativen Geoidfläche zur Bestimmung ihres Verlaufes. Studia Geophysica Et Geodaetica, 1965, 9, 178-185.	0.5	1
77	On the method of determining the external gravity field on a limited territory. Studia Geophysica Et Geodaetica, 1970, 14, 226-242.	0.5	1
78	Adjustment of a spatial network according to conditional observations when various kinds of corrections are introduced. Studia Geophysica Et Geodaetica, 1972, 16, 209-220.	0.5	1
79	Some methods of adjusting a terrestrial spatial network (Part 1). Studia Geophysica Et Geodaetica, 1973, 17, 81-99.	0.5	1
80	La classe des projections équidistantes dans les méridiens et dans les parallèles. Studia Geophysica Et Geodaetica, 1977, 21, 118-126.	0.5	1
81	Status of the TOTEM experiment at LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 718, 21-25.	1.6	1
82	Beam-Background Tests with TOTEM Roman Pot Detectors at the LHC Injection Energy. Instruments, 2018, 2, 20.	1.8	1
83	Elastic Scattering at the LHC. Acta Physica Polonica B, Proceedings Supplement, 2015, 8, 797.	0.1	1
84	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
85	Observation of $B^0 \rightarrow \psi(2S) K^0_{\text{S}} \mu^+ \mu^-$ and $B^0_{\text{S}} \rightarrow \psi(2S) K^0_{\text{S}} \mu^+ \mu^-$ decays. European Physical Journal C, 2022, 82, .	3.9	1
86	Zur Anwendung der Raumabbildung in der Geodäsie. Studia Geophysica Et Geodaetica, 1971, 15, 254-262.	0.5	0
87	Volles Gewicht einer im Refraktionsmilieu gemessenen Größe (Teil II). Studia Geophysica Et Geodaetica, 1971, 15, 263-274.	0.5	0
88	Volles Gewicht einer im Refraktionsmilieu gemessenen Größe (Teil I). Studia Geophysica Et Geodaetica, 1971, 15, 132-140.	0.5	0
89	The effect of initial data in adjusting conditional observations. Studia Geophysica Et Geodaetica, 1973, 17, 100-105.	0.5	0
90	Some methods of adjusting a terrestrial spatial network (part 2). Studia Geophysica Et Geodaetica, 1975, 19, 330-349.	0.5	0

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91	Tests of A Roman Pot Prototype for the Totem Experiment. , 0, , .		0
92	Evaluation of low-count spectra without binning. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 594, 97-101.	1.6	0
93	The TOTEM experiment at LHC. , 2011, , .		0
94	Offline Software for the TOTEM Experiment at the LHC. , 2010, , .		0