Leszek Grzanka

List of Publications by Year
in descending order

61 papers	2,046 citations	361413 20 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	4922 citing authors

#	Article	IF	Citations
1	First measurement of the total proton-proton cross-section at the LHC energy of chem{sqrt{s} = 7,TeV}. Europhysics Letters, 2011, 96, 21002.	2.0	236
2	Measurement of proton-proton elastic scattering and total cross-section at chem{sqrt {s} = 7,TeV}. Europhysics Letters, 2013, 101, 21002.	2.0	197
3	Luminosity-Independent Measurement of the Proton-Proton Total Cross Section at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msqrt><mml:mi>s</mml:mi></mml:msqrt><mml:mo>=</mml:mo><mml:mn>8</mml:mn><mml:mtext>a€‰<... Physical Review Letters, 2013, 111, 012001.	7.8	187
4	Luminosity-independent measurements of total, elastic and inelastic cross-sections at chem{sqrt {s} = 7,TeV}. Europhysics Letters, 2013, 101, 21004.	2.0	176
5	Proton-proton elastic scattering at the LHC energy of chem{sqrt{s} = 7,TeV}. Europhysics Letters, 2011, 95, 41001.	2.0	150
6	Evidence for non-exponential elastic proton€"proton differential cross-section at low |t| and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msqrt><mml:mi>s</mml:mi></mml:msqrt><mml:mo>=</mml:mo><mml:mn>8</mml:mn><mml:mspace width="0.25em" /><mml:mtext>TeV</mml:mtext></mml:math> by TOTEM. Nuclear Physics B, 2015, 899, 527-546.	2.5	111
7	Measurement of elastic pp scattering at $$sqrt{hbox {s}} = hbox {8}$$ s = 8 ÂTeV in the Coulomb€"nuclear interference region: determination of the $$mathbf {ho }$$ Ï•-parameter and the total cross-section. European Physical Journal C, 2016, 76, 1.	3.9	88
8	Measurement of proton-proton inelastic scattering cross-section at chem{sqrt {s} = 7,{mathrm {TeV}}}. Europhysics Letters, 2013, 101, 21003.	2.0	70
9	Relative biological effectiveness (RBE) and distal edge effects of proton radiation on early damage <i>in vivo</i>. Acta OncolÃ³gica, 2017, 56, 1387-1391.	1.8	64
10	Search for a Narrow Resonance Lighter than 200ÂGeV Decaying to a Pair of Muons in Proton-Proton Collisions at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msqrt><mml:mrow><mml:mi>s</mml:mi></mml:mrow></mml:msqrt><mml:mo>=</mml:mo><mm... Physical Review Letters, 2020, 124, 131802.	7.8	61
11	Measurement of pseudorapidity distributions of charged particles in proton€"proton collisions at $$sqrt{s} = 8$$ s = 8 ÂTeV by the CMS and TOTEM experiments. European Physical Journal C, 2014, 74, 1.	3.9	49
12	A systematic review on the usage of averaged LET in radiation biology for particle therapy. Radiotherapy and Oncology, 2021, 161, 211-221.	0.6	44
13	Facility for proton radiotherapy of eye cancer at IFJ PAN in Krakow. Radiation Measurements, 2010, 45, 1469-1471.	1.4	36
14	Measurement of the forward charged-particle pseudorapidity density in <i>pp</i> collisions at âˆš s = 7 TeV with the TOTEM experiment. Europhysics Letters, 2012, 98, 31002.	2.0	34
15	Double Diffractive Cross-Section Measurement in the Forward Region at the LHC. Physical Review Letters, 2013, 111, 262001.	7.8	34
16	Amorphous track models: A numerical comparison study. Radiation Measurements, 2010, 45, 1406-1409.	1.4	31
17	Search for direct pair production of supersymmetric partners to the $${uptau }_{}^{}$$ lepton in proton€"proton collisions at $$sqrt{s}=13,ext {TeV} $$. European Physical Journal C, 2020, 80, 189.	3.9	22
18	Observation of a New Excited Beauty Strange Baryon Decaying to <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msubsup><mml:mi mathvariant="normal">Îž</mml:mi><mml:mi>b</mml:mi><mml:mo>âˆ'</mml:mo></mml:msubsup><mml:msup><mml:mi>Ï€</mml:mi><... Physical Review Letters, 2021, 126, 252003.	7.8	22

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19	Elastic Scattering and Total Cross-Section in p+p Reactions. Progress of Theoretical Physics Supplement, 2012, 193, 180-183.	0.1	21
20	Search for a Light Charged Higgs Boson Decaying to a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>W</mml:mi></mml:math> Boson and a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>C</mml:mi><mml:mi>P</mml:mi></mml:math> -Odd Higgs Boson in Final States with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>e	7.8	21
21	PERFORMANCE OF THE TOTEM DETECTORS AT THE LHC. International Journal of Modern Physics A, 2013, 28, 1330046.	1.5	20
22	Diamond detectors for the TOTEM timing upgrade. Journal of Instrumentation, 2017, 12, P03007-P03007.	1.2	20
23	Observation of the Production of Three Massive Gauge Bosons at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msqrt><mml:mi>s</mml:mi></mml:msqrt><mml:mo>=</mml:mo><mml:mn>13</mml:mn><mml:mtext>â€‰</mml:mtext> Physical Review Letters, 2020, 125, 151802.	7.8	20
24	Towards harmonizing clinical linear energy transfer (LET) reporting in proton radiotherapy: a European multi-centric study. Acta OncolÃ³gica, 2022, 61, 206-214.	1.8	18
25	Differential gene expression in primary fibroblasts induced by proton and cobalt-60 beam irradiation. Acta OncolÃ³gica, 2017, 56, 1406-1412.	1.8	17
26	Search for Long-Lived Particles Decaying in the CMS End Cap Muon Detectors in Proton-Proton Collisions at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msqrt><mml:mrow><mml:mi>s</mml:mi></mml:mrow></mml:msqrt><mml:mo>=</mml:mo><mml Physical Review Letters, 2021, 127, 261804.	7.8	17
27	Observation of Forward Neutron Multiplicity Dependence of Dimuon Acoplanarity in Ultraperipheral Pb-Pb Collisions at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msqrt><mml:mrow><mml:msub><mml:mrow><mml:mi>s</mml:mi></mml:mrow><mml:mrow><mml Physical Review Letters, 2021, 127, 122001.	7.8	16
28	MONTE CARLO SIMULATIONS OF SPATIAL LET DISTRIBUTIONS IN CLINICAL PROTON BEAMS. Radiation Protection Dosimetry, 2018, 180, 296-299.	0.8	15
29	Relative biological effectiveness of the 60-MeV therapeutic proton beam at the Institute of Nuclear Physics (IFJ PAN) in KrakÃ³w, Poland. Radiation and Environmental Biophysics, 2014, 53, 745-754.	1.4	14
30	Proton scanning and X-ray beam irradiation induce distinct regulation of inflammatory cytokines in a preclinical mouse model. International Journal of Radiation Biology, 2020, 96, 1238-1244.	1.8	14
31	Observation of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msubsup><mml:mrow><mml:mi>B</mml:mi></mml:mrow><mml:mrow><mml:mi>s</mml:mi></mml stretchy="false">â†’</mml:mo><mml:mi>X</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>3872</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 252 Td (stretchy=" Letters, 2020, 125, 152001.	7.8	14
32	LHC optics measurement with proton tracks detected by the Roman pots of the TOTEM experiment. New Journal of Physics, 2014, 16, 103041.	2.9	13
33	Measurement of the forward charged particle pseudorapidity density in pp collisions at $$sqrt{s} = 8$$ s = 8 ÂTeV using a displaced interaction point. European Physical Journal C, 2015, 75, 1.	3.9	13
34	Measurement of the Jet Mass Distribution and Top Quark Mass in Hadronic Decays of Boosted Top Quarks in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>p</mml:mi><mml:mi>p</mml:mi></mml:mrow></mml:math> Collisions at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msqrt><mml:mrow><mml:mi>s</mml:mi></mml:mrow></mml:msqrt><mml:mo>=</mml:mo><mml Physical Review Letters, 2020, 124, 202001.	7.8	13
35	Measurement of the WÎ³ Production Cross Section in Proton-Proton Collisions at s=13â€‰â€‰TeV and Constraints on Effective Field Theory Coefficients. Physical Review Letters, 2021, 126, 252002.	7.8	13
36	The TOTEM detector at LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 617, 62-66.	1.6	12

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37	Constraints on the Υ_{c1} versus Υ_{c2} Polarizations in Proton-Proton Collisions at $\sqrt{s}$. Physical Review Letters, 2020, 124, ...	7.8	12
38	Using Z Boson Events to Study Parton-Medium Interactions in Pb-Pb Collisions. Physical Review Letters, 2022, 128, 122301.	7.8	11
39	Microdosimetric analysis of response of LiF:Mg,Cu,P (MCP-N) TL detectors for alpha-particles and ultra-high doses of gamma-rays. Radiation Measurements, 2011, 46, 1349-1352.	1.4	10
40	The principles of Katz's cellular track structure radiobiological model. Radiation Protection Dosimetry, 2015, 166, 49-55.	0.8	10
41	The very forward CASTOR calorimeter of the CMS experiment. Journal of Instrumentation, 2021, 16, P02010-P02010.	1.2	10
42	Search for a heavy vector resonance decaying to a ${\mathrm{Z}}_{\mathrm{}}^{\mathrm{}}$ boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13\,\text{TeV}$. European Physical Journal C, 2021, 81, 688.	3.9	9
43	RADIOTHERAPY PROTON BEAM PROFILOMETRY WITH scCVD DIAMOND DETECTOR IN SINGLE PARTICLE MODE. Radiation Protection Dosimetry, 2018, 180, 282-285.	0.8	8
44	FLUKA simulation of target fragmentation in proton therapy. Physica Medica, 2020, 80, 342-346.	0.7	8
45	Comparison of Coding Transcriptomes in Fibroblasts Irradiated With Low and High LET Proton Beams and Cobalt-60 Photons. International Journal of Radiation Oncology Biology Physics, 2019, 103, 1203-1211.	0.8	7
46	Evidence for Top Quark Production in Nucleus-Nucleus Collisions. Physical Review Letters, 2020, 125, 222001.	7.8	7
47	Validation of new 2D ripple filters in proton treatments of spherical geometries and non-small cell lung carcinoma cases. Physics in Medicine and Biology, 2018, 63, 245020.	3.0	6
48	Performance of the CMS muon trigger system in proton-proton collisions at $\sqrt{s} = 13$. Journal of Instrumentation, 2021, 16, P07001.	1.2	6
49	Measurements of the Electroweak Diboson Production Cross Sections in Proton-Proton Collisions at $\sqrt{s} =$ Using Leptonic Decays. Physical Review Letters, 2021, 127, 191801.	7.8	6
50	Optimal reference genes for normalization of qPCR gene expression data from proton and photon irradiated dermal fibroblasts. Scientific Reports, 2018, 8, 12688.	3.3	5
51	THE ROLE OF PARTICLE SPECTRA IN MODELING THE RELATIVE BIOLOGICAL EFFECTIVENESS OF PROTON RADIOTHERAPY BEAMS. Radiation Protection Dosimetry, 2019, 183, 251-254.	0.8	5
52	Constraints on the Initial State of Pb-Pb Collisions via Measurements of Z-Boson Yields and Azimuthal Anisotropy at $\sqrt{s_{}}$. Physical Review Letters, 2021, 127, 102002.	7.8	5
53	Biological Impact of Target Fragments on Proton Treatment Plans: An Analysis Based on the Current Cross-Section Data and a Full Mixed Field Approach. Cancers, 2021, 13, 4768.	3.7	5
54	Amorphous track predictions in "libamtrack" for alanine relative effectiveness in ion beams. Radiation Measurements, 2011, 46, 1551-1553.	1.4	3

#	Article	IF	Citations
55	The application of amorphous track models to study cell survival in heavy ions beams. Radiation Protection Dosimetry, 2011, 143, 232-236.	0.8	3
56	A TPS kernel for calculating survival vs. depth: distributions in a carbon radiotherapy beam, based on Katz's cellular Track Structure Theory. Radiation Protection Dosimetry, 2015, 166, 347-350.	0.8	3
57	A numerical method to optimise the spatial dose distribution in carbon ion radiotherapy planning. Radiation Protection Dosimetry, 2015, 166, 351-355.	0.8	2
58	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
59	Calculation of the Beam-Modulation Effect of the Lung in Carbon Ion and Proton Therapy With Deterministic Pencil Beam Algorithms. Frontiers in Physics, 2020, 8, .	2.1	1
60	Comment to the article â€œInactivation cross section induced by heavy ions of different energies in bacterial cells of E. coli: An analytical approachâ€•by Awad and Abu-Shady. Nuclear Instruments & Methods in Physics Research B, 2020, 473, 62-63.	1.4	0
61	Offline Software for the TOTEM Experiment at the LHC. , 2010, , .		0