

# Michal Czakon

## List of Publications by Year in descending order

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89  
papers

9,863  
citations

47006

47  
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49909

87  
g-index

89  
all docs

89  
docs citations

89  
times ranked

6844  
citing authors

#	ARTICLE	IF	CITATIONS
1	Complete collection of one-loop triple-collinear splitting operators for dimensionally-regulated QCD. Journal of High Energy Physics, 2022, 2022, .	4.7	13
2	Three-loop corrections to the muon and heavy quark decay rates. Physical Review D, 2021, 103, .	4.7	16
3	NNLO QCD predictions for W+c-jet production at the LHC. Journal of High Energy Physics, 2021, 2021, 1.	4.7	23
4	NNLO QCD corrections to diphoton production with an additional jet at the LHC. Journal of High Energy Physics, 2021, 2021, 1.	4.7	35
5	Exact Top-Quark Mass Dependence in Hadronic Higgs Production. Physical Review Letters, 2021, 127, 162002.	7.8	19
6	Next-to-Next-to-Leading Order Study of Three-Jet Production at the LHC. Physical Review Letters, 2021, 127, 152001.	7.8	38
7	Top quark pair production at complete NLO accuracy with NNLO+NNLL $\hat{\alpha}^2$ corrections in QCD *. Chinese Physics C, 2020, 44, 083104.	3.7	8
8	NNLO QCD corrections to three-photon production at the LHC. Journal of High Energy Physics, 2020, 2020, 1.	4.7	72
9	Exact quark-mass dependence of the Higgs-gluon form factor at three loops in QCD. Journal of High Energy Physics, 2020, 2020, 1.	4.7	31
10	Single-jet inclusive rates with exact color at $\mathcal{O}(\alpha_s^4)$ . Journal of High Energy Physics, 2019, 2019, 1.	4.7	47
11	Polarized double-virtual amplitudes for heavy-quark pair production. Journal of High Energy Physics, 2018, 2018, 1.	4.7	13
12	Top-quark charge asymmetry at the LHC and Tevatron through NNLO QCD and NLO EW. Physical Review D, 2018, 98, .	4.7	28
13	NNLO soft function for top quark pair production at small transverse momentum. Journal of High Energy Physics, 2018, 2018, 1.	4.7	20
14	Resummation for (boosted) top-quark pair production at NNLO+NNLL $\hat{\alpha}^2$ in QCD. Journal of High Energy Physics, 2018, 2018, 1.	4.7	34
15	Pinning down the large-x gluon with NNLO top-quark pair differential distributions. Journal of High Energy Physics, 2017, 2017, 1.	4.7	43
16	Dynamical scales for multi-TeV top-pair production at the LHC. Journal of High Energy Physics, 2017, 2017, 1.	4.7	103
17	Top-pair production at the LHC through NNLO QCD and NLO EW. Journal of High Energy Physics, 2017, 2017, 1.	4.7	121
18	Summary of the Topical Workshop on Top Quark Differential Distributions 2014. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 015004.	3.6	4

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19	High-Precision Differential Predictions for Top-Quark Pairs at the LHC. Physical Review Letters, 2016, 116, 082003.	7.8	154
20	NNLO QCD predictions for fully-differential top-quark pair production at the Tevatron. Journal of High Energy Physics, 2016, 2016, 1.	4.7	93
21	Updated Next-to-Next-to-Leading-Order QCD Predictions for the Weak Radiative $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle B \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -Meson Decays. Physical Review Letters, 2015, 114, 221801.	7.8	336
22	Resolving the Tevatron Top Quark Forward-Backward Asymmetry Puzzle: Fully Differential Next-to-Next-to-Leading-Order Calculation. Physical Review Letters, 2015, 115, 052001.	7.8	111
23	Matching the Nagy-Soper parton shower at next-to-leading order. Journal of High Energy Physics, 2015, 2015, 1.	4.7	35
24	The $(Q7, Q1,2)$ contribution to $B \hat{A}^{-} \hat{\alpha}^{\dagger} X s \hat{\Gamma}^3$ $\overline{B} o \{X\}_{sgamma}$ at $O \hat{\Gamma} \pm s^2$ $\mathcal{O} \left( \alpha_{\text{strong}}^2 \right)$ . Journal of High Energy Physics, 2015, 2015, 1.	4.7	66
25	Four-dimensional formulation of the sector-improved residue subtraction scheme. Nuclear Physics B, 2015, 890, 152-227.	2.5	76
26	Precision top-quark physics with applications. Nuclear and Particle Physics Proceedings, 2015, 261-262, 115-129.	0.5	0
27	Removing Gaps in the Exclusion of Top Squark Parameter Space. Physical Review Letters, 2014, 113, 201803.	7.8	47
28	The soft function for color octet production at threshold. Nuclear Physics B, 2014, 879, 236-255.	2.5	17
29	Virtual amplitudes and threshold behaviour of hadronic top-quark pair-production cross sections. Journal of High Energy Physics, 2014, 2014, 1.	4.7	64
30	Top++: A program for the calculation of the top-pair cross-section at hadron colliders. Computer Physics Communications, 2014, 185, 2930-2938.	7.5	782
31	Constraints on the gluon PDF from top quark pair production at hadron colliders. Journal of High Energy Physics, 2013, 2013, 1.	4.7	67
32	Quantifying quark mass effects at the LHC: a study of $pp \rightarrow \overline{b} b + X$ at next-to-leading order. Journal of High Energy Physics, 2013, 2013, 1.	4.7	11
33	Complete Nagy-Soper subtraction for next-to-leading order calculations in QCD. Journal of High Energy Physics, 2013, 2013, 1.	4.7	36
34	NNLO corrections to top pair production at hadron colliders: the quark-gluon reaction. Journal of High Energy Physics, 2013, 2013, 1.	4.7	378
35	HELAC-NLO. Computer Physics Communications, 2013, 184, 986-997.	7.5	168
36	Total Top-Quark Pair-Production Cross Section at Hadron Colliders Through $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mi} \text{mathvariant="script"} \rangle O \langle \text{mml:mi} \rangle \langle \text{mml:mo} \text{stretchy="false"} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:msubsup} \rangle \langle \text{mml:mi} \rangle \hat{\Gamma} \pm \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle S \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 4 \langle \text{mml:mn} \rangle \langle \text{mml:msubsup} \rangle \langle \text{mml:mi} \rangle$	7.8	933

#	ARTICLE	IF	CITATIONS
37	Precision top pair production at hadron colliders. Journal of Physics: Conference Series, 2013, 452, 012026.	0.4	0
38	Percent-Level-Precision Physics at the Tevatron: Next-to-Next-to-Leading Order QCD Corrections to $q\bar{q}$ production. Physical Review Letters, 2012, 109, 131302.	4.7	369
39	NNLO corrections to top-pair production at hadron colliders: the all-fermionic scattering channels. Journal of High Energy Physics, 2012, 2012, 1.	4.7	369
40	The singular behavior of one-loop massive QCD amplitudes with one external soft gluon. Nuclear Physics B, 2012, 856, 228-246.	2.5	51
41	Top-pair production at hadron colliders with next-to-next-to-leading logarithmic soft-gluon resummation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 710, 612-622.	4.1	413
42	Hadronic top-quark pair production in association with two jets at next-to-leading order QCD. Physical Review D, 2011, 84, .	4.7	57
43	Double-real radiation in hadronic top quark pair production as a proof of a certain concept. Nuclear Physics B, 2011, 849, 250-295.	2.5	135
44	Complete off-shell effects in top quark pair hadroproduction with leptonic decay at next-to-leading order. Journal of High Energy Physics, 2011, 2011, 1.	4.7	148
45	Quest for precision in hadronic cross sections at low energy: Monte Carlo tools vs. experimental data. European Physical Journal C, 2010, 66, 585-686.	3.9	270
46	Threshold expansion of the $q\bar{q}$ production cross section at NNLO. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 259-268.	4.1	79
47	A novel subtraction scheme for double-real radiation at NNLO. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 259-268.	4.1	232
48	NLO QCD calculations with HELAC-NLO. Nuclear Physics, Section B, Proceedings Supplements, 2010, 205-206, 211-217.	0.4	11
49	Dominant QCD Backgrounds in Higgs Boson Analyses at the LHC: A Study of $pp \rightarrow t\bar{t} + b\bar{b}$ at Next-to-Leading Order. Physical Review Letters, 2010, 104, 162002.	4.7	194
50	Inclusive heavy flavor hadroproduction in NLO QCD: The exact analytic result. Nuclear Physics B, 2010, 824, 111-135.	2.5	73
51	Polarizing the dipoles. Journal of High Energy Physics, 2009, 2009, 085-085.	4.7	103
52	Assault on the NLO wishlist: $pp \rightarrow t\bar{t} + b\bar{b}$ . Journal of High Energy Physics, 2009, 2009, 109-109.	4.7	194
53	On the soft-gluon resummation in top quark pair production at hadron colliders. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 680, 154-158.	4.1	25
54	Threshold resummation for top-pair hadroproduction to next-to-next-to-leading log. Physical Review D, 2009, 80, .	4.7	89

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55	Two-loop electroweak fermionic corrections to. Nuclear Physics B, 2009, 813, 174-187.	2.5	28
56	Tops from light quarks: Full mass dependence at two-loops in QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 664, 307-314.	4.1	108
57	Heavy-quark production in gluon fusion at two loops in QCD. Nuclear Physics B, 2008, 798, 210-250.	2.5	87
58	Virtual hadronic and heavy-fermion $O(\epsilon^2)$ corrections to Bhabha scattering. Physical Review D, 2008, 78, .	4.7	20
59	Virtual Hadronic and Leptonic Contributions to Bhabha Scattering. Physical Review Letters, 2008, 100, 131602.	7.8	32
60	NNLO fermionic corrections to the charm quark mass dependent matrix elements in $B_c \rightarrow \pi^+ X_s^0$ . Journal of High Energy Physics, 2007, 2007, 072-072.	4.7	39
61	Estimate of $B(B_c \rightarrow \pi^+ X_s^0)$ at $O(\epsilon^2)$ . Physical Review Letters, 2007, 98, 022002.	7.8	564
62	Two-loop fermionic corrections to massive Bhabha scattering. Nuclear Physics B, 2007, 786, 26-51.	2.5	27
63	Four-loop anomalous dimensions for radiative flavour-changing decays. Journal of High Energy Physics, 2007, 2007, 008-008.	4.7	70
64	Heavy-quark production in massless quark scattering at two loops in QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 651, 147-159.	4.1	76
65	The planar four-point master integrals for massive two-loop Bhabha scattering. Nuclear Physics B, 2006, 751, 1-17.	2.5	35
66	Single scale tadpoles and corrections to the $\bar{\theta}$ -parameter. Nuclear Physics B, 2006, 755, 221-238.	2.5	83
67	ZFITTER: a semi-analytical program for fermion pair production in annihilation, from version 6.21 to version 6.42. Computer Physics Communications, 2006, 174, 728-758.	7.5	116
68	Automatized analytic continuation of Mellin-Barnes integrals. Computer Physics Communications, 2006, 175, 559-571.	7.5	300
69	Corrections to the effective weak mixing angle at $O(\epsilon^2)$ . Nuclear Physics, Section B, Proceedings Supplements, 2006, 157, 16-20.	4.1	25
70	Differential equations and massive two-loop Bhabha scattering: the $B_{5l2m3}$ case. Nuclear Physics, Section B, Proceedings Supplements, 2006, 157, 16-20.	0.4	7
71	Four-Loop Tadpoles: Applications in QCD. Nuclear Physics, Section B, Proceedings Supplements, 2006, 160, 160-164.	0.4	43
72	Bosonic corrections to the effective leptonic weak mixing angle at the two-loop level. Nuclear Physics, Section B, Proceedings Supplements, 2006, 157, 58-62.	0.4	9

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73	Planar two-loop master integrals for massive Bhabha scattering: $N_f = 1$ and $N_f = 2$ . Nuclear Physics, Section B, Proceedings Supplements, 2006, 160, 91-100.	0.4	7
74	Harmonic polylogarithms for massive Bhabha scattering. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 265-268.	1.6	5
75	Electroweak two-loop corrections to the effective weak mixing angle. Journal of High Energy Physics, 2006, 2006, 048-048.	4.7	91
76	Two-Loop Iteration of Five-Point $N=4$ Super-Yang-Mills Amplitudes. Physical Review Letters, 2006, 97, 181601.	7.8	105
77	Master integrals for massive two-loop Bhabha scattering in QED. Physical Review D, 2005, 71, .	4.7	55
78	The four-loop QCD $\hat{\Gamma}^2$ -function and anomalous dimensions. Nuclear Physics B, 2005, 710, 485-498.	2.5	405
79	Complete Two-Loop Electroweak Fermionic Corrections to the Effective Leptonic Weak Mixing Angle and Indirect Determination of the Higgs Boson Mass. Physical Review Letters, 2004, 93, 201805.	7.8	93
80	Precise prediction for the $W$ -boson mass in the standard model. Physical Review D, 2004, 69, .	4.7	219
81	Two-loop Fermionic Electroweak Corrections to the Effective Leptonic Weak Mixing Angle in the Standard Model. Nuclear Physics, Section B, Proceedings Supplements, 2004, 135, 119-123.	0.4	16
82	A complete set of scalar master integrals for massive 2-loop Bhabha scattering: where we are. Nuclear Physics, Section B, Proceedings Supplements, 2004, 135, 83-87.	0.4	26
83	Complete two loop electroweak contributions to the muon lifetime in the Standard Model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 568, 48-54.	4.1	76
84	Bosonic corrections to $\tau$ at the two-loop level. Physical Review D, 2003, 68, .	4.7	60
85	Complete Two Loop Bosonic Contributions to the Muon Lifetime in the Standard Model. Physical Review Letters, 2002, 89, 241801.	7.8	84
86	Muon decay to one loop order in the left-right symmetric model. Nuclear Physics B, 2002, 642, 157-172.	2.5	17
87	Seesaw mechanism and four light neutrino states. Physical Review D, 2001, 64, .	4.7	3
88	Confronting electroweak precision measurements with New Physics models. European Physical Journal C, 2000, 13, 275-281.	3.9	35
89	Confronting electroweak precision measurements with New Physics models. European Physical Journal C, 2000, 13, 275.	3.9	4