

# Robert V Harlander

## List of Publications by Year in descending order

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61  
papers

4,601  
citations

147566

31  
h-index

110170

64  
g-index

67  
all docs

67  
docs citations

67  
times ranked

5779  
citing authors

#	ARTICLE	IF	CITATIONS
1	Next-to-Next-to-Leading Order Higgs Production at Hadron Colliders. Physical Review Letters, 2002, 88, 201801.	2.9	843
2	SusHi: A program for the calculation of Higgs production in gluon fusion and bottom-quark annihilation in the Standard Model and the MSSM. Computer Physics Communications, 2013, 184, 1605-1617.	3.0	288
3	NNLO QCD corrections to the Higgs-strahlung processes at hadron colliders. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 579, 149-156.	1.5	283
4	Physics with $e^+e^-$ linear colliders. Physics Reports, 1998, 299, 1-78.	10.3	274
5	Higgs boson production in bottom quark fusion at next-to-next-to-leading order. Physical Review D, 2003, 68, .	1.6	247
6	Higgs production and decay: analytic results at next-to-leading order QCD. Journal of High Energy Physics, 2005, 2005, 015-015.	1.6	174
7	Virtual corrections to $gg \rightarrow H$ to two loops in the heavy top limit. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 492, 74-80.	1.5	150
8	Finite top mass effects for hadronic Higgs production at next-to-next-to-leading order. Journal of High Energy Physics, 2009, 2009, 088-088.	1.6	146
9	Higgs production in gluon fusion at next-to-next-to-leading order QCD for finite top mass. European Physical Journal C, 2010, 66, 359-372.	1.4	142
10	Soft and virtual corrections to $pp \rightarrow H + X$ at next-to-next-to-leading order. Physical Review D, 2001, 64, .	1.6	132
11	Top-quark mediated effects in hadronic Higgs-Strahlung. European Physical Journal C, 2012, 72, 1.	1.4	120
12	SusHi Bento: Beyond NNLO and the heavy- top limit. Computer Physics Communications, 2017, 212, 239-257.	3.0	113
13	Production of a pseudo-scalar Higgs boson at hadron colliders at next-to-next-to-leading order. Journal of High Energy Physics, 2002, 2002, 017-017.	1.6	111
14	vh@nlo Higgs Strahlung at hadron colliders. Computer Physics Communications, 2013, 184, 998-1003.	3.0	108
15	Top mass effects in Higgs production at next-to-next-to-leading order QCD: Virtual corrections. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 679, 467-472.	1.5	106
16	Gluon-induced Higgs-strahlung at next-to-leading order QCD. Journal of High Energy Physics, 2013, 2013, 1.	1.6	99
17	Four-loop $\hat{\Gamma}^2$ function and mass anomalous dimension in dimensional reduction. Journal of High Energy Physics, 2006, 2006, 024-024.	1.6	82
18	Supersymmetric Higgs production in gluon fusion at next-to-leading order. Journal of High Energy Physics, 2004, 2004, 066-066.	1.6	77

#	ARTICLE	IF	CITATIONS
19	: A program for the evaluation of the hadronic R-ratio in the perturbative regime of QCD. Computer Physics Communications, 2003, 153, 244-274.	3.0	71
20	Quartic mass corrections to R at $\hat{\Gamma}(\pm)$ . Nuclear Physics B, 2000, 586, 56-72.	0.9	69
21	Top-mass effects in differential Higgs production through gluon fusion at $\mathcal{O}(\alpha_s^4)$ . Journal of High Energy Physics, 2014, 2014, 1.	1.6	62
22	Hadronic Higgs production and decay in supersymmetry at next-to-leading order. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 574, 258-268.	1.5	59
23	Soft gluon resummation for gluon-induced Higgs Strahlung. Journal of High Energy Physics, 2014, 2014, 1.	1.6	55
24	Automatic computation of Feynman diagrams. Progress in Particle and Nuclear Physics, 1999, 43, 167-228.	5.6	53
25	Dimensional reduction applied to QCD at three loops. Journal of High Energy Physics, 2006, 2006, 053-053.	1.6	46
26	Higgs Strahlung at the Large Hadron Collider in the 2-Higgs-doublet model. Journal of High Energy Physics, 2014, 2014, 1.	1.6	46
27	Probing the nature of the Higgs-gluon coupling. Physical Review D, 2013, 88, .	1.6	43
28	Higgs mass prediction in the MSSM at three-loop level in a pure $\overline{\text{DR}}$ context. European Physical Journal C, 2017, 77, 1.	1.4	36
29	Higgs plus jet production in bottom quark annihilation at next-to-leading order. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 269-273.	1.5	35
30	Effects of supersymmetric QCD in hadronic Higgs production at next-to-next-to-leading order. Physical Review D, 2003, 68, .	1.6	34
31	Pseudo-scalar Higgs production at next-to-leading order SUSY-QCD. Journal of High Energy Physics, 2006, 2006, 050-050.	1.6	33
32	Gluon-induced weak boson fusion. Physical Review D, 2008, 77, .	1.6	31
33	The perturbative QCD gradient flow to three loops. Journal of High Energy Physics, 2016, 2016, 1.	1.6	31
34	The SUSY-QCD $\hat{\Gamma}^2$ function to three loops. European Physical Journal C, 2009, 63, 383-390.	1.4	30
35	Higgs boson decay to top quarks at $\mathcal{O}(\hat{\Gamma}^2)$ . Physical Review D, 1997, 56, 3980-3990.	1.6	28
36	The two-loop energy-momentum tensor within the gradient-flow formalism. European Physical Journal C, 2018, 78, 1.	1.4	28

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37	Supersymmetric Higgs production in gluon fusion. <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	1.6	26
38	Towards precise predictions for Higgs-boson production in the MSSM. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	1.6	25
39	Jet-veto in bottom-quark induced Higgs production at next-to-next-to-leading order. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	1.6	23
40	Transverse momentum resummation for Higgs production via gluon fusion in the MSSM. <i>Journal of High Energy Physics</i> , 2014, 2014, 1.	1.6	21
41	FeynGame. <i>Computer Physics Communications</i> , 2020, 256, 107465.	3.0	21
42	Exact Top-Quark Mass Dependence in Hadronic Higgs Production. <i>Physical Review Letters</i> , 2021, 127, 162002.	2.9	19
43	Philosophical perspectives on ad hoc hypotheses and the Higgs mechanism. <i>Synthese</i> , 2014, 191, 3897-3917.	0.6	18
44	vh@nnlo-v2: new physics in Higgs Strahlung. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	18
45	Naturalness, Wilsonian renormalization, and "fundamental parameters" in quantum field theory. <i>Studies in History and Philosophy of Science Part B - Studies in History and Philosophy of Modern Physics</i> , 2019, 66, 118-134.	1.4	16
46	Supersymmetric Higgs production at the large hadron collider. <i>European Physical Journal C</i> , 2004, 33, s454-s456.	1.4	15
47	The light-fermion contribution to the exact Higgs-gluon form factor in QCD. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	15
48	Higgs production in heavy-quark annihilation through next-to-next-to-leading order QCD. <i>European Physical Journal C</i> , 2016, 76, 1.	1.4	14
49	Higgs production in bottom quark annihilation: Transverse momentum distribution at NNLO+NNLL. <i>Physical Review D</i> , 2014, 90, .	1.6	13
50	Higgs production at the Large Hadron Collider: theoretical status. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2008, 35, 033001.	1.4	12
51	Results and techniques for higher order calculations within the gradient-flow formalism. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	9
52	Feynman diagrams. <i>Synthese</i> , 2021, 199, 15087-15111.	0.6	7
53	Effective electroweak Hamiltonian in the gradient-flow formalism. <i>Physical Review D</i> , 2022, 105, .	1.6	5
54	Higgs Naturalness and Renormalized Parameters. <i>Foundations of Physics</i> , 2019, 49, 879-897.	0.6	4

#	ARTICLE	IF	CITATIONS
55	Standard and SUSY Higgs production at the LHC. Pramana - Journal of Physics, 2006, 67, 875-884.	0.9	3
56	Hadronic vacuum polarization using gradient flow. Journal of High Energy Physics, 2020, 2020, 1.	1.6	3
57	HIGGS PRODUCTION IN GLUON FUSION TO $\mathcal{O}(\alpha_s^4)$ . International Journal of Modern Physics A, 2001, 16, 305-307.	0.5	2
58	Wie Teilchen zu ihrer Masse kommen. Physik in Unserer Zeit, 2013, 44, 220-227.	0.0	2
59	Precise predictions for Higgs cross sections at the Large Hadron Collider. Nuclear Physics, Section B, Proceedings Supplements, 2004, 135, 30-34.	0.5	1
60	Verletzung der perfekten Symmetrie. Physik in Unserer Zeit, 2013, 44, 270-270.	0.0	1
61	Scalar and pseudo-scalar Higgs production at hadron colliders. Nuclear Physics, Section B, Proceedings Supplements, 2003, 116, 168-172.	0.5	0