Gudrun Heinrich

List of Publications by Year
in descending order

76 papers	4,684 citations	66343 42 h-index	91884 69 g-index
77 all docs	77 docs citations	77 times ranked	4642 citing authors

#	Article	IF	Citations
1	Expansion by regions with pySecDec. Computer Physics Communications, 2022, 273, 108267.	7.5	20
2	Targeting multi-loop integrals with neural networks. SciPost Physics, 2022, 12, .	4.9	15
3	ZH production in gluon fusion: two-loop amplitudes with full top quark mass dependence. Journal of High Energy Physics, 2021, 2021, 1.	4.7	20
4	Collider physics at the precision frontier. Physics Reports, 2021, 922, 1-69.	25.6	89
5	Anomalous couplings in Higgs-boson pair production at approximate NNLO QCD. Journal of High Energy Physics, 2021, 2021, 1.	4.7	7
6	Trilinear Higgs boson coupling variations for di-Higgs production with full NLO QCD predictions in Powheg. Journal of Physics: Conference Series, 2020, 1525, 012009.	0.4	2
7	A non-linear EFT description of gg â†' H H at NLO interfaced to POWHEG. Journal of High Energy Physics, 2020, 2020, 1.	4.7	17
8	Exploring anomalous couplings in Higgs boson pair production through shape analysis. Journal of High Energy Physics, 2020, 2020, 1.	4.7	19
9	Photon pair production in gluon fusion: top quark effects at NLO with threshold matching. Journal of High Energy Physics, 2020, 2020, 1.	4.7	2
10	Analytic Form of the Full Two-Loop Five-Gluon All-Plus Helicity Amplitude. Physical Review Letters, 2019, 123, 071601.	7.8	59
11	Probing the trilinear Higgs boson coupling in di-Higgs production at NLO QCD including parton shower effects. Journal of High Energy Physics, 2019, 2019, 1.	4.7	36
12	A GPU compatible quasi-Monte Carlo integrator interfaced to pySecDec. Computer Physics Communications, 2019, 240, 120-137.	7.5	68
13	Double Higgs boson production at NLO: combining the exact numerical result and high-energy expansion. Journal of High Energy Physics, 2019, 2019, 1.	4.7	26
14	Loopedia, a database for loop integrals. Computer Physics Communications, 2018, 225, 1-9.	7.5	11
15	pySecDec: A toolbox for the numerical evaluation of multi-scale integrals. Computer Physics Communications, 2018, 222, 313-326.	7.5	174
16	Higgs boson pair production at NNLO with top quark mass effects. Journal of High Energy Physics, 2018, 2018, 1.	4.7	102
17	Higgs boson pair production in non-linear Effective Field Theory with full mt-dependence at NLO QCD. Journal of High Energy Physics, 2018, 2018, 1.	4.7	43
18	NLO and off-shell effects in top quark mass determinations. Journal of High Energy Physics, 2018, 2018, 1.	4.7	16

#	Article	IF	Citations
19	NNLO predictions for Z-boson pair production at the LHC. Journal of High Energy Physics, 2018, 2018, 1.	4.7	29
20	Multi-loop calculations: numerical methods and applications. Journal of Physics: Conference Series, 2017, 920, 012003.	0.4	1
21	NLO predictions for Higgs boson pair production with full top quark mass dependence matched to parton showers. Journal of High Energy Physics, 2017, 2017, 1.	4.7	63
22	Numerical multi-loop calculations: tools and applications. Journal of Physics: Conference Series, 2016, 762, 012073.	0.4	1
23	Anomalous coupling, top-mass and parton-shower effects in W + W â˜’ production. Journal of High Energy Physics, 2016, 2016, 1.	4.7	9
24	Higgs Boson Pair Production in Gluon Fusion at Next-to-Leading Order with Full Top-Quark Mass Dependence. Physical Review Letters, 2016, 117, 012001.	7.8	141
25	Full top quark mass dependence in Higgs boson pair production at NLO. Journal of High Energy Physics, 2016, 2016, 1.	4.7	118
26	Renormalization scheme dependence of the two-loop QCD corrections to the neutral Higgs-boson masses in the MSSM. European Physical Journal C, 2015, 75, 424.	3.9	43
27	Numerical multi-loop calculations with the program SecDec. Journal of Physics: Conference Series, 2015, 608, 012062.	0.4	1
28	SecDec-3.0: Numerical evaluation of multi-scale integrals beyond one loop. Computer Physics Communications, 2015, 196, 470-491.	7.5	141
29	Tools for NLO automation: Extension of the golem95C integral library. Computer Physics Communications, 2014, 185, 1828-1834.	7.5	23
30	Update of the Binoth Les Houches Accord for a standard interface between Monte Carlo tools and one-loop programs. Computer Physics Communications, 2014, 185, 560-571.	7.5	65
31	EERAD3: Event shapes and jet rates in electronâ€"positron annihilation at order α_s^3. Computer Physics Communications, 2014, 185, 3331-3340.	7.5	46
32	Momentum-dependent two-loop QCD corrections to the neutral Higgs-boson masses in the MSSM. European Physical Journal C, 2014, 74, 1.	3.9	59
33	GoSam-2.0: a tool for automated one-loop calculations within the Standard Model and beyond. European Physical Journal C, 2014, 74, 1.	3.9	140
34	NLO QCD corrections to W + W â˜’ b b Â¯ $$ {W}^{+}{W}^{-} \boverline{b} $$ production with leptonic decays in the light of top quark mass and asymmetry measurements. Journal of High Energy Physics, 2014, 2014, 1.	4.7	42
35	GoSam applications for automated NLO calculations. Journal of Physics: Conference Series, 2014, 523, 012056.	0.4	1
36	Numerical multi-loop calculations with SecDec. Journal of Physics: Conference Series, 2014, 523, 012048.	0.4	2

#	Article	IF	Citations
37	Photon isolation effects at NLO in Î³Î³+jet final states in hadronic collisions. Journal of High Energy Physics, 2013, 2013, 1.	4.7	28
38	Massive non-planar two-loop four-point integrals with SecDec 2.1. Computer Physics Communications, 2013, 184, 2552-2561.	7.5	21
39	SUSY-QCD corrections to neutralino pair production in association with a jet. European Physical Journal C, 2013, 73, 1.	3.9	23
40	NLO QCD corrections to diphoton plus jet production through graviton exchange. Journal of High Energy Physics, 2013, 2013, 1.	4.7	9
41	Numerical evaluation of multi-loop integrals for arbitrary kinematics with SecDec 2.0. Computer Physics Communications, 2013, 184, 396-408.	7.5	78
42	Precise QCD Predictions for the Production of a Photon Pair in Association with Two Jets. Physical Review Letters, 2013, 111, 222002.	7.8	35
43	GoSam: A program for automated one-loop calculations. Journal of Physics: Conference Series, 2012, 368, 012056.	0.4	10
44	NLO QCD corrections to the production of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>W</mml:mi></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:r plus two jets at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 713, 277-283.	4.0	43
45	Automated one-loop calculations with GoSam. European Physical Journal C, 2012, 72, 1.	3.9	217
46	SecDec: A general program for sector decomposition. Computer Physics Communications, 2011, 182, 1566-1581.	7.5	98
47	Golem95C: A library for one-loop integrals with complex masses. Computer Physics Communications, 2011, 182, 2276-2284.	7.5	73
48	Tensorial reconstruction at the integrand level. Journal of High Energy Physics, 2010, 2010, 1.	4.7	53
49	Recent Progress in the Golem Project. Nuclear Physics, Section B, Proceedings Supplements, 2010, 205-206, 67-73.	0.4	11
50	A proposal for a standard interface between Monte Carlo tools and one-loop programs. Computer Physics Communications, 2010, 181, 1612-1622.	7.5	100
51	Precise Determination of the Strong Coupling Constant at NNLO in QCD from the Three-Jet Rate in Electronâ€"Positron Annihilation at LEP. Physical Review Letters, 2010, 104, 072002.	7.8	49
52	Photon-jet correlations and constraints on fragmentation functions. Physical Review D, 2009, 79, .	4.7	34
53	NNLO moments of event shapes in<i>e</i>⁺<i>e</i>^{â^'}annihilation. Journal of High Energy Physics, 2009, 2009, 106-106.	4.7	56
54	golem95: A numerical program to calculate one-loop tensor integrals with up to six external legs. Computer Physics Communications, 2009, 180, 2317-2330.	7.5	105

#	ARTICLE	IF	CITATIONS
55	Determination of the strong coupling constant using matched NNLO+NLLA predictions for hadronic event shapes in e⁺e[−] annihilations. Journal of High Energy Physics, 2009, 2009, 036-036.	4.7	72
56	Master integrals for fermionic contributions to massless three-loop form factors. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 662, 344-352.	4.1	43
57	SECTOR DECOMPOSITION. International Journal of Modern Physics A, 2008, 23, 1457-1486.	1.5	124
58	Loop induced interference effects in Higgs boson plus two jet production at the LHC. Journal of High Energy Physics, 2008, 2008, 057-057.	4.7	46
59	Jet Rates in Electron-Positron Annihilation at $O(\alpha_s^3)$	7.8	97
60	Infrared structure of $e^+e^- \to$ 3 jets at NNLO. Journal of High Energy Physics, 2007, 2007, 058-058.	4.7	108
61	NNLO corrections to event shapes in e^+e^- annihilation. Journal of High Energy Physics, 2007, 2007, 094-094.	4.7	166
62	Algebraic evaluation of rational polynomials in one-loop amplitudes. Journal of High Energy Physics, 2007, 2007, 013-013.	4.7	63
63	Master integrals for massless three-loop form factors: One-loop and two-loop insertions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 640, 252-259.	4.1	39
64	An algebraic/numerical formalism for one-loop multi-leg amplitudes. Journal of High Energy Physics, 2005, 2005, 015-015.	4.7	134
65	Analytical evaluation of dimensionally regularized massive on-shell double boxes. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 598, 55-66.	4.1	61
66	Numerical evaluation of multi-loop integrals by sector decomposition. Nuclear Physics B, 2004, 680, 375-388.	2.5	151
67	Four-particle phase space integrals in massless QCD. Nuclear Physics B, 2004, 682, 265-288.	2.5	119
68	Numerical evaluation of phase space integrals by sector decomposition. Nuclear Physics B, 2004, 693, 134-148.	2.5	130
69	A numerical method for NNLO calculations. Nuclear Physics, Section B, Proceedings Supplements, 2003, 116, 368-372.	0.4	46
70	A numerical evaluation of the scalar hexagon integral in the physical region. Nuclear Physics B, 2003, 654, 277-300.	2.5	48
71	A NLO calculation of the large-p $_T$ photon + photon o photon + jet cross section. European Physical Journal C, 2002, 23, 503-511.	3.9	6
72	A NLO calculation of the hadron-jet cross section in photoproduction reactions. European Physical Journal C, 2002, 26, 209-218.	3.9	9

#	Article	IF	Citations
73	Is a large intrinsic k_{T} needed to describe photon + jet photoproduction at HERA?. European Physical Journal C, 2001, 22, 303-315.	3.9	28
74	Reduction formalism for dimensionally regulated one-loop N-point integrals. Nuclear Physics B, 2000, 572, 361-386.	2.5	111
75	An automatized algorithm to compute infrared divergent multi-loop integrals. Nuclear Physics B, 2000, 585, 741-759.	2.5	362
76	Light-cone gauge and the calculation of the two-loop splitting functions. Physical Review D, 1998, 58, .	4.7	23