

Gudrun Heinrich

List of Publications by Year in descending order

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Version: 2024-02-01

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 |
|----|--|------|-----------|
| 19 | SecDec: A general program for sector decomposition. Computer Physics Communications, 2011, 182, 1566-1581. | 7.5 | 98 |
| 20 | Jet Rates in Electron-Positron Annihilation at $O(\alpha_s^3)$ | 7.8 | 97 |
| 21 | Collider physics at the precision frontier. Physics Reports, 2021, 922, 1-69. | 25.6 | 89 |
| 22 | Numerical evaluation of multi-loop integrals for arbitrary kinematics with SecDec 2.0. Computer Physics Communications, 2013, 184, 396-408. | 7.5 | 78 |
| 23 | Golem95C: A library for one-loop integrals with complex masses. Computer Physics Communications, 2011, 182, 2276-2284. | 7.5 | 73 |
| 24 | Determination of the strong coupling constant using matched NNLO+NLLA predictions for hadronic event shapes in $e^+e^- \rightarrow \hat{\sigma}$ annihilations. Journal of High Energy Physics, 2009, 2009, 036-036. | 4.7 | 72 |
| 25 | A GPU compatible quasi-Monte Carlo integrator interfaced to pySecDec. Computer Physics Communications, 2019, 240, 120-137. | 7.5 | 68 |
| 26 | 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 |
| 27 | Algebraic evaluation of rational polynomials in one-loop amplitudes. Journal of High Energy Physics, 2007, 2007, 013-013. | 4.7 | 63 |
| 28 | 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 |
| 29 | 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 |
| 30 | 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 |
| 31 | Analytic Form of the Full Two-Loop Five-Gluon All-Plus Helicity Amplitude. Physical Review Letters, 2019, 123, 071601. | 7.8 | 59 |
| 32 | NNLO moments of event shapes in $e^+e^- \rightarrow \hat{\sigma}$ annihilation. Journal of High Energy Physics, 2009, 2009, 106-106. | 4.7 | 56 |
| 33 | Tensorial reconstruction at the integrand level. Journal of High Energy Physics, 2010, 2010, 1. | 4.7 | 53 |
| 34 | Precise Determination of the Strong Coupling Constant at NNLO in QCD from the Three-Jet Rate in Electron-Positron Annihilation at LEP. Physical Review Letters, 2010, 104, 072002. | 7.8 | 49 |
| 35 | A numerical evaluation of the scalar hexagon integral in the physical region. Nuclear Physics B, 2003, 654, 277-300. | 2.5 | 48 |
| 36 | A numerical method for NNLO calculations. Nuclear Physics, Section B, Proceedings Supplements, 2003, 116, 368-372. | 0.4 | 46 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | 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 |
| 38 | EERAD3: Event shapes and jet rates in electron-positron annihilation at order α_s^2 . Computer Physics Communications, 2014, 185, 3331-3340. | 7.5 | 46 |
| 39 | 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 |
| 40 | NLO QCD corrections to the production of W^+W^- plus two jets at the LHC. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 713, 277-283. | 4.1 | 43 |
| 41 | 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 |
| 42 | Higgs boson pair production in non-linear Effective Field Theory with full m_t -dependence at NLO QCD. Journal of High Energy Physics, 2018, 2018, 1. | 4.7 | 43 |
| 43 | NLO QCD corrections to $W^+W^-b\bar{b}$ 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 |
| 44 | 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 |
| 45 | 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 |
| 46 | Precise QCD Predictions for the Production of a Photon Pair in Association with Two Jets. Physical Review Letters, 2013, 111, 222002. | 7.8 | 35 |
| 47 | Photon-jet correlations and constraints on fragmentation functions. Physical Review D, 2009, 79, . | 4.7 | 34 |
| 48 | NNLO predictions for Z-boson pair production at the LHC. Journal of High Energy Physics, 2018, 2018, 1. | 4.7 | 29 |
| 49 | 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 |
| 50 | Photon isolation effects at NLO in $\hat{\sigma}^3$ +jet final states in hadronic collisions. Journal of High Energy Physics, 2013, 2013, 1. | 4.7 | 28 |
| 51 | 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 |
| 52 | Light-cone gauge and the calculation of the two-loop splitting functions. Physical Review D, 1998, 58, . | 4.7 | 23 |
| 53 | SUSY-QCD corrections to neutralino pair production in association with a jet. European Physical Journal C, 2013, 73, 1. | 3.9 | 23 |
| 54 | Tools for NLO automation: Extension of the golem95C integral library. Computer Physics Communications, 2014, 185, 1828-1834. | 7.5 | 23 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Massive non-planar two-loop four-point integrals with SecDec 2.1. Computer Physics Communications, 2013, 184, 2552-2561. | 7.5 | 21 |
| 56 | 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 |
| 57 | Expansion by regions with pySecDec. Computer Physics Communications, 2022, 273, 108267. | 7.5 | 20 |
| 58 | Exploring anomalous couplings in Higgs boson pair production through shape analysis. Journal of High Energy Physics, 2020, 2020, 1. | 4.7 | 19 |
| 59 | A non-linear EFT description of $gg \rightarrow H H$ at NLO interfaced to POWHEG. Journal of High Energy Physics, 2020, 2020, 1. | 4.7 | 17 |
| 60 | NLO and off-shell effects in top quark mass determinations. Journal of High Energy Physics, 2018, 2018, 1. | 4.7 | 16 |
| 61 | Targeting multi-loop integrals with neural networks. SciPost Physics, 2022, 12, . | 4.9 | 15 |
| 62 | Recent Progress in the Golem Project. Nuclear Physics, Section B, Proceedings Supplements, 2010, 205-206, 67-73. | 0.4 | 11 |
| 63 | Loopedia, a database for loop integrals. Computer Physics Communications, 2018, 225, 1-9. | 7.5 | 11 |
| 64 | GoSam: A program for automated one-loop calculations. Journal of Physics: Conference Series, 2012, 368, 012056. | 0.4 | 10 |
| 65 | A NLO calculation of the hadron-jet cross section in photoproduction reactions. European Physical Journal C, 2002, 26, 209-218. | 3.9 | 9 |
| 66 | NLO QCD corrections to diphoton plus jet production through graviton exchange. Journal of High Energy Physics, 2013, 2013, 1. | 4.7 | 9 |
| 67 | Anomalous coupling, top-mass and parton-shower effects in $W + W \rightarrow$ production. Journal of High Energy Physics, 2016, 2016, 1. | 4.7 | 9 |
| 68 | Anomalous couplings in Higgs-boson pair production at approximate NNLO QCD. Journal of High Energy Physics, 2021, 2021, 1. | 4.7 | 7 |
| 69 | A NLO calculation of the large- p_T photon + photon + jet cross section. European Physical Journal C, 2002, 23, 503-511. | 3.9 | 6 |
| 70 | Numerical multi-loop calculations with SecDec. Journal of Physics: Conference Series, 2014, 523, 012048. | 0.4 | 2 |
| 71 | 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 |
| 72 | 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 |

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|----|--|-----|-----------|
| 73 | GoSam applications for automated NLO calculations. Journal of Physics: Conference Series, 2014, 523, 012056. | 0.4 | 1 |
| 74 | Numerical multi-loop calculations with the program SecDec. Journal of Physics: Conference Series, 2015, 608, 012062. | 0.4 | 1 |
| 75 | Numerical multi-loop calculations: tools and applications. Journal of Physics: Conference Series, 2016, 762, 012073. | 0.4 | 1 |
| 76 | Multi-loop calculations: numerical methods and applications. Journal of Physics: Conference Series, 2017, 920, 012003. | 0.4 | 1 |