

List of Publications in Refereed Journals

1. Arnd Behring, Michal Czakon, Alexander Mitov, Andrew S. Papanastasiou, Rene Poncelet, “Higher order corrections to spin correlations in top quark pair production at the LHC”, arXiv:1901.05407 [hep-ph].
2. J. de Blas et al, “The CLIC Potential for New Physics”, arXiv:1812.02093 [hep-ph].
3. Stefano Boselli, Ross Hunter, Alexander Mitov, “Prospects for the determination of the top-quark Yukawa coupling at future e+e- colliders”, arXiv:1805.12027 [hep-ph].
4. Herschel A. Chawdhry, Matthew A. Lim and Alexander Mitov, “Two-loop five-point massless QCD amplitudes within the IBP approach”, arXiv:1805.09182 [hep-ph].
5. Michal Czakon and Alexander Mitov, “A simplified expression for the one-loop soft-gluon current with massive fermions”, arXiv:1804.02069 [hep-ph].
6. Michal Czakon, Andrea Ferroglia, David Heymes, Alexander Mitov, Ben D. Pecjak, Darren J. Scott, Xing Wang and Li Lin Yang “Resummation for (boosted) top-quark pair production at NNLO+NNLL' in QCD”, JHEP 1805 (2018) 149, arXiv:1803.07623 [hep-ph].
7. Michal Czakon, David Heymes, Alexander Mitov, Davide Pagani, Ioannis Tsinikos and Marco Zaro “The top-quark charge asymmetry at the LHC and Tevatron through NNLO QCD and NLO EW”, arXiv:1711.03945 [hep-ph].
8. Valerio Bertone, Alexandre Glazov, Alexander Mitov, Andrew Papanastasiou and Maria Ubiali “Heavy-flavor parton distributions without heavy-flavor matching prescriptions”, arXiv:1711.03355 [hep-ph].
9. Michal Czakon, David Heymes, Alexander Mitov, Davide Pagani, Ioannis Tsinikos and Marco Zaro “Top-pair production at the LHC through NNLO QCD and NLO EW”, JHEP 1710 (2017) 186, arXiv:1705.04105 [hep-ph].
10. Michal Czakon, David Heymes and Alexander Mitov “fastNLO tables for NNLO top-quark pair differential distributions”, arXiv:1704.08551 [hep-ph].
11. Michal Czakon, Nathan Hartland, Alexander Mitov, Emanuele Nocera and Juan Rojo “Pinning down the large-x gluon with NNLO top-quark pair differential distributions”, JHEP 1704 (2017) 044, arXiv:1611.08609 [hep-ph].
12. The D0 collaboration and M.Czakon, P.Fiedler, D.Heymes and A.Mitov “Measurement of the pole mass of the top quark using differential tbar cross sections in ppbar collisions at $\sqrt{s} = 1.96$ TeV”, D0 Note 6473-CONF, Cavendish-HEP-16/15
[\[http://www-d0.fnal.gov/Run2Physics/WWW/results/prelim/TOP/T113/\]](http://www-d0.fnal.gov/Run2Physics/WWW/results/prelim/TOP/T113/).
13. Michal Czakon, David Heymes and Alexander Mitov, “Bump-hunting in LHC tbar events”, Phys. Rev. D94 (2016) no.11, 114033, arXiv:1608.00765 [hep-ph].
14. Michal Czakon, David Heymes and Alexander Mitov, “Dynamical scales for multi-TeV top-pair production at the LHC”, JHEP 1704 (2017) 071, arXiv:1606.03350 [hep-ph].
15. Michal Czakon, Paul Fiedler, David Heymes and Alexander Mitov, “NNLO QCD predictions for fully-differential top-quark pair production at the Tevatron”, JHEP 1605 (2016) 034, arXiv:1601.05375 [hep-ph].
16. Michal Czakon, David Heymes and Alexander Mitov, “High-precision differential predictions for top-quark pairs at the LHC”, Phys. Rev. Lett. 116, 082003 (2016), arXiv:1511.00549 [hep-ph].
17. M. Czakon, A. Mitov and J. Rojo, “Summary of the Topical Workshop on Top Quark Differential Distributions 2014”, J. Phys. G 43 (2016) 015004, arXiv:1501.01112 [hep-ph].
18. Michal Czakon, Paul Fiedler and Alexander Mitov, “Resolving the Tevatron top quark forward-backward asymmetry puzzle”, Phys. Rev. Lett. 115 (2015) 052001, arXiv:1411.3007 [hep-ph].
19. Stefano Frixione and Alexander Mitov, “Determination of the top quark mass from leptonic observables”, JHEP 1409 (2014) 012, arXiv:1407.2763 [hep-ph].
20. Michal Czakon, Alexander Mitov, Michele Papucci, Joshua T. Ruderman and Andreas Weiler, “Closing the stop gap”, Phys. Rev. Lett. 113 (2014) 201803, arXiv:1407.1043 [hep-ph].

21. Aurelio Juste, Sonny Mantry, Alexander Mitov, Alexander Penin, Peter Skands, Erich Varnes, Marcel Vos and Stephen Wimpenny, “Determination of the top quark mass circa 2013: methods, subtleties, perspectives”, *Eur. Phys. J. C* 74 (2014) 10, 3119, arXiv:1310.0799 [hep-ph].
22. Michal Czakon, Michelangelo L. Mangano, Alexander Mitov and Juan Rojo, “Constraints on the gluon PDF from top quark pair production at hadron colliders”, *JHEP* 1307 (2013) 167, arXiv:1303.7215[hep-ph].
23. Michal Czakon, Paul Fiedler and Alexander Mitov, “The total top quark pair production cross-section at hadron colliders through $O(\alpha_S^4)$ ”, *Phys. Rev. Lett.* 110 (2013) 252004, arXiv:1303.6254 [hep-ph].
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30. Isabella Bierenbaum, Michal Czakon, Alexander Mitov, “The singular behavior of one-loop massive QCD amplitudes with one external soft gluon”, *Nucl. Phys. B* 856 (2012) 228, arXiv:1107.4384 [hep-ph].
31. Alexander Mitov, “The like-sign dimuon charge asymmetry at the Tevatron: corrections from B meson fragmentation”, *Phys. Rev. D* 84 (2011) 014035, arXiv:1102.3148 [hep-ph].
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39. M. Czakon and A. Mitov “Inclusive Heavy Flavor Hadroproduction in NLO QCD: the Exact Analytic Result”, *Nucl. Phys. B* 824 (2010) 111 (arXiv:0811.4119 [hep-ph]).
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Conference Proceedings

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3. Michal Czakon, David Heymes, Alexander Mitov, Davide Pagani, Ioannis Tsinikos, Marco Zaro “Top-quark pair production at NNLO QCD + NLO EW accuracy: Tevatron results”, arXiv:1712.04842 [hep-ph].
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6. Michal Czakon, Paul Fiedler, Alexander Mitov and Juan Rojo, “Further exploration of top pair hadroproduction at NNLO”, Contribution to the proceedings of the twenty-seventh workshop "Les Rencontres de Physique de la Vallée d'Aoste", held 24 Feb.-02 Mar. 2013 in La Thuile, Aosta Valley, Italy, arXiv:1305.3892 [hep-ph].

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