

Marco Guzzi List of Publications

1. **“ tZ' production at hadron colliders”**
M. Guzzi, N. Kidonakis
arXiv:1904.10071 [hep-ph]
2. **“CTEQ-TEA parton distributions functions with intrinsic charm”**
M. Guzzi, T.J. Hou, S. Dulat, J. Gao, J.W. Huston, P. Nadolsky, C. Schmidt, J. Winter, K. Xie, and C.P. Yuan.
DOI: 10.1051/epjconf/201819200003
EPJ Web Conf. **192**, 00003 (2018).
3. **“Top tagging : an analytical perspective”**
M. Dasgupta, M. Guzzi, J. Rawling and G. Soyez.
arXiv:1807.04767 [hep-ph]
DOI:10.1007/JHEP09(2018)170
JHEP **1809**, 170 (2018)
MSUHEP-17-012
4. **“CTEQ-TEA parton distributions functions with intrinsic charm”**
M. Guzzi, T.J. Hou, S. Dulat, J. Gao, J.W. Huston, P. Nadolsky, C. Schmidt, J. Winter, K. Xie, and C.P. Yuan.
PoS(DIS2017) **030** (2018)
5. **“CT14 Intrinsic Charm Parton Distribution Functions from CTEQ-TEA Global Analysis”**
T. J. Hou S. Dulat, J. Gao, M. Guzzi, J.W. Huston, P. Nadolsky, C. Schmidt, J. Winter, K. Xie, and C.P. Yuan.
arXiv:1707.00657 [hep-ph]
DOI:10.1007/JHEP02(2018)059
JHEP **1802**, 059 (2018)
MSUHEP-17-012
6. **“Impact of the HERA I+II combined data on the CT14 QCD global analysis”**
M. Guzzi, S. Dulat, T.J. Hou, J. Gao, J. Huston, P. Nadolsky, J. Pumplin, C. Schmidt, D. Stump, C.P. Yuan.
DOI:10.1051/epjconf/201612900012
EPJ Web Conf. **129**, 00012 (2016).
7. **“CTEQ-TEA parton distribution functions and HERA Run I and II combined data”**
Tie-Jiun Hou, Sayipjamal Dulat, Jun Gao, Marco Guzzi, Joey Huston, Pavel Nadolsky, Jon Pumplin, Carl Schmidt, Daniel Stump, C. -P. Yuan.
arXiv:1609.07968 [hep-ph]
DOI:10.1103/PhysRevD.95.034003
Phys. Rev. D **95**, no. 3, 034003 (2017)
8. **“The structure of the proton: The CT14 QCD global analysis”**
M. Guzzi, S. Dulat, T.J. Hou, J. Gao, J. Huston, P. Nadolsky, J. Pumplin, C. Schmidt, D. Stump, C.P. Yuan.
DOI:10.1051/epjconf/201612007003
EPJ Web Conf. **120**, 07003 (2016).
9. **“Progress in CT PDF Analysis”**
Marco Guzzi, Sayipjamal Dulat, Tie-Jiun Hou, Jun Gao, Joey Huston, Pavel Nadolsky, Jon Pumplin,

- C.R. Schmidt, Dan Stump, C.P. Yuan.
PoS DIS **2015**, 059 (2015).
10. **“DIS2015 Heavy Flavours Working Group Summary”**
M. Guzzi, A. Geiser and F. Rizatdinova.
arXiv:1509.04582 [hep-ph]
PoS DIS **2015**, 009 (2015)
MAN-HEP-2015-16
 11. **“Extra Z' s and W' s in heterotic-string derived models”**
A. E. Faraggi and M. Guzzi.
arXiv:1507.07406 [hep-ph]
DOI:10.1140/epjc/s10052-015-3763-4
Eur. Phys. J. C **75**, no. 11, 537 (2015)
LTH-1052
 12. **“Heavy Flavors on CT14”**
Tie-Jiun Hou, Sayipjamal Dulat, Jun Gao, Marco Guzzi, Joey Walter Huston, Pavel Nadolsky, Jon Pumplin, C.R. Schmidt, Dan Stump, C.P. Yuan.
PoS DIS **2015**, 166 (2015).
 13. **“New parton distribution functions from a global analysis of quantum chromodynamics”**
Sayipjamal Dulat, Tie-Jiun Hou, Jun Gao, Marco Guzzi, Joey Huston, Pavel Nadolsky, Jon Pumplin, Carl Schmidt, Daniel Stump, C.P. Yuan.
arXiv:1506.07443 [hep-ph]
DOI:10.1103/PhysRevD.93.033006
Phys. Rev. D **93**, no. 3, 033006 (2016)
 14. **“Impact of heavy-flavour production cross sections measured by the LHCb experiment on parton distribution functions at low x ”**
O. Zenaiev *et al.* [PROSA Collaboration].
arXiv:1503.04581 [hep-ph]
DOI:10.1140/epjc/s10052-015-3618-z
Eur. Phys. J. C **75**, no. 8, 396 (2015)
DESY-15-034
 15. **“Developments in the parton distribution functions of the proton”**
M. Guzzi.
DOI:10.1051/epjconf/20148000023
EPJ Web Conf. **80**, 00023 (2014).
 16. **“HERAFitter”**
S. Alekhin *et al.*.
arXiv:1410.4412 [hep-ph]
DOI:10.1140/epjc/s10052-015-3480-z
Eur. Phys. J. C **75**, no. 7, 304 (2015)
DESY-14-188, DESY-REPORT-14-188, FERMILAB-PUB-14-603-CMS
 17. **“Differential cross sections for top pair production at the LHC”**
M. Guzzi, K. Lipka and S. O. Moch.
arXiv:1409.0444 [hep-ph]
DOI:10.1016/j.nuclphysbps.2015.09.354
Nucl. Part. Phys. Proc. **273-275**, 2177 (2016), [PoS DIS **2014**, 052 (2014)]
DESY-14-155
 18. **“Uncertainties on H and $t\bar{t}$ predictions at the LHC (and update on intrinsic charm)”**
C. Schmidt *et al.*.
PoS DIS **2014**, 146 (2014).

19. **“Top-quark pair production at hadron colliders: differential cross section and phenomenological applications with DiffTop”**
M. Guzzi, K. Lipka and S. O. Moch.
arXiv:1406.0386 [hep-ph]
DOI:10.1007/JHEP01(2015)082
JHEP **1501**, 082 (2015)
DESY-14-077, LPN-14-076, SFB-CPP-14-27
20. **“Measurement of the muon charge asymmetry in inclusive $pp \rightarrow W + X$ production at $\sqrt{s} = 7$ TeV and an improved determination of light parton distribution functions”**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1312.6283 [hep-ex]
DOI:10.1103/PhysRevD.90.032004
Phys. Rev. D **90**, no. 3, 032004 (2014)
CMS-SMP-12-021, CERN-PH-EP-2013-232
21. **“Nonperturbative contributions to a resummed leptonic angular distribution in inclusive neutral vector boson production”**
M. Guzzi, P. M. Nadolsky and B. Wang.
arXiv:1309.1393 [hep-ph]
DOI:10.1103/PhysRevD.90.014030
Phys. Rev. D **90**, no. 1, 014030 (2014)
22. **“Top-quark production at the LHC: differential cross section and phenomenological applications”**
M. Guzzi, K. Lipka and S. O. Moch.
arXiv:1308.1635 [hep-ph]
PoS DIS **2013**, 049 (2013)
DESY-13-141
23. **“Charm quark mass dependence in the CTEQ NNLO global QCD analysis”**
J. Gao, M. Guzzi and P. M. Nadolsky.
arXiv:1306.5319 [hep-ph]
PoS DIS **2013**, 302 (2013)
24. **“Charm quark mass dependence in a global QCD analysis”**
J. Gao, M. Guzzi and P. M. Nadolsky.
arXiv:1304.3494 [hep-ph]
DOI:10.1140/epjc/s10052-013-2541-4
Eur. Phys. J. C **73**, no. 8, 2541 (2013)
SMU-HEP-13-09
25. **“CT10 next-to-next-to-leading order global analysis of QCD”**
Jun Gao, Marco Guzzi, Joey Huston, Hung-Liang Lai, Zhao Li, Pavel Nadolsky, Jon Pumplin, Daniel Stump, C.-P. Yuan
arXiv:1302.6246 [hep-ph]
DOI:10.1103/PhysRevD.89.033009
Phys. Rev. D **89**, no. 3, 033009 (2014)
SMU-HEP-12-23
26. **“Massive neutral gauge boson production as a probe of nuclear modifications of parton distributions at the LHC”**
V. Guzey, M. Guzzi, P. M. Nadolsky, M. Strikman and B. Wang.
arXiv:1212.5344 [hep-ph]
DOI:10.1140/epja/i2013-13035-6
Eur. Phys. J. A **49**, 35 (2013), [Eur. Phys. J. A **49**, 35 (2013)]
SMU-HEP-12-17
27. **“Nonperturbative contributions to a resummed leptonic angular distribution in inclusive Z/γ^* boson production”**

- M. Guzzi and P. M. Nadolsky.
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DOI:10.1142/S2010194512009324
Int. J. Mod. Phys. Conf. Ser. **20**, 274 (2012), [Int. J. Mod. Phys. Conf. Ser. **20**, 274 (2012)]
28. **“DIS heavy-flavor contributions at two loops in a general mass scheme”**
P. M. Nadolsky and M. Guzzi.
DOI:10.1016/j.nuclphysbps.2012.03.005
Nucl. Phys. Proc. Suppl. **222-224**, 35 (2012).
 29. **“Progress in CTEQ-TEA PDF Analysis”**
P. Nadolsky *et al.*
arXiv:1206.3321 [hep-ph]
DOI:10.3204/DESY-PROC-2012-02/301
 30. **“General-Mass Treatment for Deep Inelastic Scattering at Two-Loop Accuracy”**
M. Guzzi, P. M. Nadolsky, H. L. Lai and C.-P. Yuan.
arXiv:1108.5112 [hep-ph]
DOI:10.1103/PhysRevD.86.053005
Phys. Rev. D **86**, 053005 (2012)
SMU-HEP-11-21
 31. **“Heavy-flavor contributions at NNLO in CTEQ PDF analysis”**
M. Guzzi, P. M. Nadolsky, H. L. Lai and C.-P. Yuan.
arXiv:1108.4008 [hep-ph]
 32. **“Gluons and the quark sea at high energies: Distributions, polarization, tomography”**
D. Boer *et al.*
arXiv:1108.1713 [nucl-th]
SLAC-R-995, INT-PUB-11-034, BNL-96164-2011, JLAB-THY-11-1373
 33. **“CT10 parton distributions and other developments in the global QCD analysis”**
M. Guzzi, P. Nadolsky, E. Berger, H. L. Lai, F. Olness and C.-P. Yuan.
arXiv:1101.0561 [hep-ph]
SMU-HEP-10-11
 34. **“Relic Densities of Gauged Axions and Supersymmetry”**
C. Coriano, M. Guzzi and A. Mariano.
arXiv:1012.2420 [hep-ph]
DOI:10.1016/j.nuclphysbps.2011.04.073
Nucl. Phys. Proc. Suppl. **217**, 75 (2011)
 35. **“Constraints on color-octet fermions from a global parton distribution analysis”**
E. L. Berger, M. Guzzi, H. L. Lai, P. M. Nadolsky and F. I. Olness.
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DOI:10.1103/PhysRevD.82.114023
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ANL-HEP-PR-10-19, SMU-HEP-10-09
 36. **“Relic Densities of Dark Matter in the U(1)-Extended NMSSM and the Gauged Axion Supermultiplet”**
C. Coriano, M. Guzzi and A. Mariano.
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DOI:10.1103/PhysRevD.85.095008
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 37. **“Gauged Axions and their QCD Interactions”**
C. Coriano, M. Guzzi and A. Mariano.
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38. **“New parton distributions for collider physics”**
H. L. Lai, M. Guzzi, J. Huston, Z. Li, P. M. Nadolsky, J. Pumplin and C.-P. Yuan.
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DOI:10.1103/PhysRevD.82.074024
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MSUHEP-100707, SMU-HEP-10-10
39. **“Cosmological Properties of a Gauged Axion”**
C. Coriano, M. Guzzi, G. Lazarides and A. Mariano.
arXiv:1005.5441 [hep-ph]
DOI:10.1103/PhysRevD.82.065013
Phys. Rev. D **82**, 065013 (2010)
40. **“The Effective Actions of Pseudoscalar and Scalar Particles in Theories with Gauge and Conformal Anomalies”**
R. Armillis, C. Coriano, L. Delle Rose, M. Guzzi and A. Mariano.
arXiv:1001.5240 [hep-ph]
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41. **“Axions from Intersecting Branes and Decoupled Chiral Fermions at the Large Hadron Collider”**
C. Coriano and M. Guzzi.
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42. **“Searching for an Axion-like Particle at the Large Hadron Collider”**
C. Coriano, M. Guzzi and A. Mariano.
arXiv:0905.4416 [hep-ph]
DOI:10.1393/ncc/i2009-10434-4
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43. **“Anomalous U(1) Models in Four and Five Dimensions and their Anomaly Poles”**
R. Armillis, C. Coriano, L. Delle Rose and M. Guzzi.
arXiv:0905.0865 [hep-ph]
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44. **“Proceedings, Workshop on Monte Carlo’s, Physics and Simulations at the LHC. Part I : Frascati, Italy, 2006”**
F. Ambroglini *et al.*
arXiv:0902.0293 [hep-ph]
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45. **“Proceedings, Workshop on Monte Carlo’s, Physics and Simulations at the LHC. Part II : Frascati. Italy, 2006”**
F. Ambroglini *et al.*
arXiv:0902.0180 [hep-ph]
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46. **“A Light Supersymmetric Axion in an Anomalous Abelian Extension of the Standard Model”**
C. Coriano, M. Guzzi, A. Mariano and S. Morelli.
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47. **“Axion and Neutralinos from Supersymmetric Extensions of the Standard Model with anomalous U(1)’s”**

- C. Coriano, M. Guzzi, N. Irges and A. Mariano.
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48. **“An Anomalous Extra Z Prime from Intersecting Branes with Drell-Yan and Direct Photons at the LHC”**
R. Armillis, C. Coriano, M. Guzzi and S. Morelli.
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49. **“Axions and Anomaly-Mediated Interactions: The Green-Schwarz and Wess-Zumino Vertices at Higher Orders and g-2 of the muon”**
R. Armillis, C. Coriano, M. Guzzi and S. Morelli.
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50. **“Z-prime searches at the LHC: Some QCD precision studies in Drell-Yan”**
C. Coriano, A. E. Faraggi and M. Guzzi.
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51. **“Precision Studies of the NNLO DGLAP Evolution at the LHC with CANDIA”**
A. Cafarella, C. Coriano and M. Guzzi.
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DOI:10.1016/j.cpc.2008.06.004
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52. **“Searching for Extra Z-prime from Strings and Other Models at the LHC with Lepto-production”**
C. Coriano, A. E. Faraggi and M. Guzzi.
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DOI:10.1103/PhysRevD.78.015012
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LTH-780
53. **“Unitarity Bounds for Gauged Axionic Interactions and the Green-Schwarz Mechanism”**
C. Coriano, M. Guzzi and S. Morelli.
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54. **“Trilinear Anomalous Gauge Interactions from Intersecting Branes and the Neutral Currents Sector”**
R. Armillis, C. Coriano and M. Guzzi.
arXiv:0711.3424 [hep-ph]
DOI:10.1088/1126-6708/2008/05/015
JHEP **0805**, 015 (2008)
55. **“NNLO logarithmic expansions and high precision determinations of the QCD background at the LHC: The Case of the Z resonance”**
A. Cafarella, C. Coriano and M. Guzzi.
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DOI:10.1063/1.2823851
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56. **“The Search for extra neutral currents at the LHC: QCD and anomalous gauge interactions”**
R. Armillis, C. Coriano and M. Guzzi.
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57. **“A Novel string derived Z-prime with stable proton, light-neutrinos and R-parity violation”**
C. Coriano, A. E. Faraggi and M. Guzzi.
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58. **“NNLO Logarithmic Expansions and Precise Determinations of the Neutral Currents near the Z Resonance at the LHC: The Drell-Yan case”**
A. Cafarella, C. Coriano and M. Guzzi.
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JHEP **0708**, 030 (2007)
59. **“QCD Studies at Hadron Colliders and in Deeply Virtual Neutrino Scattering”**
M. Guzzi.
hep-ph/0612355
60. **“Deeply Virtual Neutrino Scattering at Leading Twist”**
C. Coriano and M. Guzzi.
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DOI:10.1016/j.nuclphysbps.2007.02.076
Nucl. Phys. Proc. Suppl. **168**, 179 (2007)
61. **“NNLO evolution of the PDF’s and their errors: Benchmarks and predictions for Drell-Yan”**
A. Cafarella, C. Coriano and M. Guzzi.
Frascati Phys. Ser. **49**, 388 (2009).
62. **“Double transverse-spin asymmetries in Drell-Yan and J / psi production from proton-antiproton collisions”**
M. Guzzi, V. Barone, A. Cafarella, C. Coriano and P. Ratcliffe.
hep-ph/0604176
DOI:10.1142/9789812773272_0036
63. **“Parton distributions, logarithmic expansions and kinetic evolution”**
A. Cafarella, C. Coriano and M. Guzzi.
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64. **“Double transverse-spin asymmetries in Drell-Yan processes with antiprotons”**
V. Barone, A. Cafarella, C. Coriano, M. Guzzi and P. Ratcliffe.
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DOI:10.1016/j.physletb.2006.07.012
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65. **“Nnlo logarithmic expansions and exact solutions of the DGLAP equations from x-space: New algorithms for precision studies at the lhc”**
A. Cafarella, C. Coriano and M. Guzzi.
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LTH-679

66. **“On the scale variation of the total cross section for Higgs production at the LHC and at the Tevatron”**
A. Cafarella, C. Coriano, M. Guzzi and J. Smith.
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67. **“Antiproton-proton scattering experiments with polarization”**
V. Barone *et al.* [PAX Collaboration].
hep-ex/0505054
68. **“Leading twist amplitudes for exclusive neutrino interactions in the deeply virtual limit”**
C. Coriano and M. Guzzi.
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69. **“Deeply virtual neutrino scattering (DVNS)”**
P. Amore, C. Coriano and M. Guzzi.
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JHEP **0502**, 038 (2005)
70. **“Using and constraining nonforward parton distributions: Deeply virtual neutrino scattering in cosmic rays and light dark matter searches”**
C. Coriano, G. Chirilli and M. Guzzi.
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eConf C **030614**, 023 (2003)
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71. **“An x-space analysis of evolution equations: Soffer’s inequality and the nonforward evolution”**
A. Cafarella, C. Coriano and M. Guzzi.
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72. **“Solving renormalization group equations by recursion relations”**
A. Cafarella, C. Coriano and M. Guzzi.
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73. **“Superstring relics, supersymmetric fragmentation and UHECR”**
A. Cafarella, C. Coriano, M. Guzzi and D. Martello.
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