

## PHENOLNF: PHENOMENOLOGY OF FUNDAMENTAL INTERACTIONS AT PRESENT AND FUTURE COLLIDERS

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The research topics investigated within the PHENOLNF project concern the phenomenology of present and future colliders.

The main achievements are summarized in the following publications:

1. G. Corcella, *Interpretation of the top-quark mass measurements: a theory overview*, PoS TOP2015 (2016) 037.
2. G. Corcella, S. De Curtis, S. Moretti and G. Pancheri, *Physics Prospects for Linear and other Future Colliders after the Discovery of the Higgs (LFC15)*, Frascati Phys.Ser. 61 (2016) 1.
3. F. Moriello, R. Bonciani, V. Del Duca, H. Frellesvig, J.M. Henn and V.A. Smirnov, *Two-Loop integrals for precision Higgs boson phenomenology*, PoS LL2016 (2016) 025.
4. R. Bonciani, V. Del Duca, H. Frellesvig, J.M. Henn, F. Moriello, V.A. Smirnov, *Two-loop planar master integrals for Higgs3 partons with full heavy-quark mass dependence* JHEP 1612 (2016) 096.
5. V. Del Duca, S. Druc, J. Drummond, C. Duhr, F. Dulat, R. Marzucca, G. Papathanasiou and B. Verbeek, *Multi-Regge kinematics and the moduli space of Riemann spheres with marked points*, JHEP 1608 (2016) 152.
6. V. Del Duca, C. Duhr, A. Kardos, G. Somogyi, Z. Ször, Z. Trócsányi and Z. Tulipánt, *Jet production in the CoLoRFulNNLO method: event shapes in electron-positron collisions*, Phys. Rev. D94 (2016) 7 074019.
7. V. Del Duca, C. Duhr, A. Kardos, G. Somogyi and Z. Trócsányi, *Three-Jet Production in Electron-Positron Collisions at Next-to-Next-to-Leading Order Accuracy*, Phys. Rev. Lett. 117 (2016) 15 152004.
8. D.A. Fagundes, L. Jenkovszky, E.Q. Miranda, G. Pancheri, and P.V.R.G. Silva, *Fine structure of the diffraction cone: From the ISR to the LHC*, Int. J. Mod. Phys. A31 (2016) 28-29, 1645022
9. G. Pancheri, D. Fagundes, A. Grau, O. Shekhovtsova and Y.N. Srivastava, *Total Cross-sections at LHC and Cosmic ray Energies*, Frascati Phys. Ser. 61 (2016) 171