

# Eric Laenen

## Curriculum Vitae

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- 📍 Theory Group, Nikhef, Science Park 105, Amsterdam, The Netherlands.
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### Education

- 1992 Ph.D. theoretical physics *Theoretical and phenomenological aspects of quantum field theory.* Stony Brook University, USA. Advisor: J. Smith.
- 1987 Doctoraal (cum laude) Catholic University of Nijmegen (now Radboud University), The Netherlands. Advisors: J.J. de Swart, T. Rijken.

### Positions

- 2007– **Full Professor**, Institute for Theoretical Physics, University of Amsterdam, The Netherlands (0.8fte)
- 2001– **Full Professor**, Institute of Theoretical Physics, Utrecht University, The Netherlands (0.2fte)
- 1998– **Senior Scientist**, Theory Group, Nikhef, Amsterdam, The Netherlands.
- 1997 **Visiting scientist**, Stony Brook University, USA.
- 1994–1996 **Fellow**, CERN, Switzerland.
- 1992–1994 **Research Associate**, Fermi National Accelerator Laboratory, USA.

### Memberships and Associations

- Associate Member, Higgs Centre for Theoretical Physics, University of Edinburgh.  
*This means a standing invitation to visit any time, and to organize workshops using Higgs Centre support.*
- Member, Dutch Physical Society.

### Research

- My current research projects address topics in collider physics, perturbative quantum field theory, especially Quantum Chromodynamics. These range from essentially theoretical to directly relevant for LHC experiments.
- Since 1989 I have (co)-authored 97 papers. A list of these appears on pages 4–8. Not listed are numerous conference proceedings and working group reports.
- Metrics: h-index = 45, 8800 citations (inspire); h-index = 47, 12.700 citations (google scholar).

### Teaching

- I currently supervise two PhD students, and one post-doctoral fellows and three master students. I have previously supervised another 10 PhD students (one graduated cum laude), numerous postdocs and over 50 Masters students at the Universities of Amsterdam and Utrecht.
  - *Field Theory in Particle Physics*, Master course, University of Amsterdam and Utrecht University (joint course), since 2007.
  - *Quantum Physics II*, 2nd year Bachelor course, University of Amsterdam, 2011–2015; I initiated the honours extension for this course.
  - *Electrodynamics and Special Relativity*, 2nd year Bachelor course, University of Amsterdam, since 2016.
  - *Standard Model*, Master course, Utrecht University, 2001–2006.
  - *Quantum Chromodynamics*, special course, University of Iceland, spring 2001.
- For the Master Theoretical Physics program at the UvA I initiated and co-wrote an advertising brochure to show prospective students the teachers, courses of the program and its coherence.

### Lectures at international schools

- University of Mumbai, India, November 2020, GIAN India, lectures on recent advances in QCD.
- 58th Course of the International School of Subnuclear Physics, Erice, June 2020, lecture on LHC and perturbative QCD.

- SPARC Lecture series, Hyderabad, January 2020, lectures on QCD.
- University of Turin, October 2019, lectures on QCD for PhD students.
- Maria Laach School, September 2019, lectures on Standard Model precision physics.
- QCD Master Class (CNRS), St-Jacut, France, June 2017, lectures on resummation.
- University of Mumbai, India, November 2016, GIAN India, lectures on QCD.
- YETI school Durham, UK, January 2016, lecture on top quark physics.
- University of Freiburg Graduierten Kolleg, Gengenbach, Germany, September 2015, lectures on QCD.
- GGI lectures on QCD, Florence, Italy, September 2014.
- European CERN School of High-Energy Physics, Netherlands, June 2014, lectures on QCD.
- School for Analytical Computing in QCD, Atrani, Italy, October 2013, lectures on resummation in QCD.
- Cargese Summer School: Across the TeV frontier with the LHC (2012), lectures on top quark physics.
- Monte Carlo Network school: Heavy Flavour Production, Lund, Sweden, July 2009.
- PhD School of Dutch Research School for Theoretical Physics (Nijmegen 1998, 2005; Sao Paolo 2011, Dalfsen 2018).
- PhD School of Dutch Research School Subatomic Physics (2003, 2008).
- CTEQ School, St. Feliu de Guixols, Spain, May 2003.
- Jyvaskyla Summer School, Finland 2000.

## Leadership positions and advisory board membership

### Leadership and coordination:

- Chair of Working Group on Young Scientist Careers as part of European Strategy Update, 2019-2020
- Head of the Nikhef theory group, 2005 - 2018.  
*At the time I took over it had 10 members; when I stepped down it had over 40 members (10 staff, 15 postdocs, 13 PhD Students, plus Master and Bachelor students). Group members have in that time obtained 3 ERC Advanced Grants, 2 ERC Starting Grants, 4 Marie Curie Fellowships, 6 Vidi grants, 4 Veni Grants, 2 FOM programmes, 2 EU ITN networks, 6 Projectruimte grants.*
- Scientific Delegate to the CERN Council for The Netherlands, since 2016.  
*To help oversee the strategy, governance and operations of CERN, and maintain the strong influence of the Netherlands. A present focus area is to increase return for the Netherlands in internships from MBO and HBO, as well as contracts for Dutch industry (esp. MKB).*
- Chair of the KNAW CERN Contact Committee for The Netherlands, since 2016.
- Member of Institute for Physics and Astronomy (VU and UvA) visitor committee, since 2016.
- Member of 2011 “Ambassadeursklas” of FNWI faculty, University of Amsterdam.
- Among first pilot group for BKO qualification for experienced lecturers at the FNWI, 2012.
- Chair of High Energy Theory network, the Netherlands, since 2008.

### Advisory boards:

- Member of Strategy Group for European Strategy for Particle Physics Update, 2018-2020. *This group is tasked to write the draft strategy document, for approval by the CERN Council.*
- Scientific Advisory Committee for CERN Theory Group, 2018-2020.
- Chair of internal evaluation board for EDM experiment at Groningen University.
- Member of Evaluation Committee of Talent Stars programme at University of Padova, Italy, 2018.
- Member of Panel for Quality Assessment of Physics and Astronomy education at Free University of Brussels, 2017.
- Member of Plenary ECFA (European Committee for Future Accelerators), since 2015.
- Member of the scientific advisory board for the Institute of Research in Mathematics and Physics, UCL Louvain-la-Neuve, Belgium, 2011 – 2019.
- Member of FNWI committee “Tien-punten plan”, working group Education and Research, 2015.
- Member of Works Council of the Faculty of Science, University of Amsterdam, 2011–2015. Chair of research and education Works Council subcommittee. *Besides the regular proceedings this involved interviewing prospective Institute directors; conducting many interviews regarding the AFS; discussions concerning the IvI “do-centengroep”; research underpinning the establishment of the tenure track protocol at the UvA; organizing meetings with SILS groups slated to move to the Zuidas, and much more.*
- Member of midterm evaluation committee of Helmholtz Association Alliance “Physics at the TeraScale”, 2010.
- Member of Governing Board of Dutch Research School for Theoretical Physics (DRSTP), 2009–2015.
- Member of Educational Board of Dutch Research School for Subatomic Physics (OSAF), 2005–2015.

- ▶ Member of jury for Utrecht University Excellence Scholarships for master students, 2003–2005.

Other committees:

- ▶ Member/chair of many hiring committees at Nikhef, University of Amsterdam, Nijmegen University, CERN.
- ▶ Tenure review committees and promotion to full professor evaluations at the universities of Amsterdam, Free University, Groningen, Leiden; also at Durham University, Queen Mary University of London, Grenoble University; University of Iowa, University at Buffalo; IIT Bombay.
- ▶ Grant evaluation committees of FOM, NWO; FWO and FRNS (Belgium); STFC (UK); DFG (Germany); CNRS (France); Ramon y Cajal (Spain); SNF (Switzerland), and REA of European Commission.

## Organization of conferences and schools

Conference organization:

- ▶ Standard Model at the LHC, 120 participants, 2017, Amsterdam, conference chair.
- ▶ Stress-testing the Standard Model at the LHC, 120 participants, Santa Barbara, 2016, co-chair.
- ▶ Threshold Logarithms Beyond Leading Power, 30 participants, 2016, co-chair.
- ▶ JosFest, in honor of Jos Vermaseren's 66th Birthday, 2015. co-chair.
- ▶ Amsterdam Particle Physics Symposium (APPS), 100 participants, 2011, Amsterdam, co-chair.
- ▶ TiniFest, in honor of Martinus Veltman 80th Birthday, 2011, co-chair.
- ▶ Advanced Computing and Analysis Techniques (ACAT) 2007, 80 participants, Amsterdam, member of LOC.
- ▶ International Conference for High Energy Physics (ICHEP), Amsterdam, 2002, 900 participants, member of LOC.

In addition I been convener at many conferences and workshops.

Schools:

- ▶ Annual Winterschool for the Dutch Research School of Theoretical Physics: 2005 (Nijmegen), 2011 (Sao Paolo, Brazil).

## Grants

I have acquired (in part jointly) over €5.5 million in external research grants since 2005.

2019	E. Laenen, W. Waalewijn, A. Tripathi, et al., "Perturbative QCD for Precision Physics at the LHC". <i>SPARC grant of Indian Government.</i>	€100,000
2016	E. Laenen, M. Vreeswijk, "Topspin". <i>FOM Projectruimte.</i>	€468,000
2016	E. Laenen, W. Waalewijn, <i>Delta-ITP PhD Fellowship.</i>	€220,000
2014	E. Laenen (Principal Investigator) et al., "Higgs as Probe and Portal" <i>National FOM program</i> <i>A consortium of Nikhef and 5 universities, with 13 staff.</i>	€2,100,000
2013	Node coordinator EU Training Network "HiggsTools".	€220,000
2010	Node coordinator EU Training Network "LHCPhenoNet".	€450,000
2007	E. Laenen (Principal Investigator) et al., "Theoretical particle physics in the Era of the LHC". <i>National FOM program</i> <i>A consortium of Nikhef, KVI Groningen and 6 universities, with 15 staff.</i>	€2,300,000
2006	E. Laenen, R. Godbole, <i>Utrecht-Asia visiting grant.</i>	€20,000
2006	E. Laenen, T. Peitzmann, "Gluon saturation". <i>FOM Projectruimte.</i>	€400,000

## Major invited talks

I give up to 10 talks a year at seminars and conferences. A selection of major invited talks:

- ▶ Plenary talk, *The role of precision at the high-energy frontier*, Gordon Research Conference, Hong Kong, 2019.
- ▶ Plenary talk, *The eikonal approximation and beyond*, Dutch National Seminar Theoretical Physics, Amsterdam, 2017.
- ▶ Physics Colloquium, *Top quarks at the LHC*, Indian Institute of Science, Bangalore, 2017.
- ▶ Plenary talk, *Next-to-soft radiative corrections in QCD*, Kavli workshop, Santa Barbara, 2016.

- Plenary talk, *Next-to-eikonal calculations*, SM@LHC16, Pittsburgh, 2016.
- Plenary talk, *Overview on top mass and coupling*, LFC15, Trento, 2015.
- Plenary talk, *Developments in QCD analytical resummation*, QCDLHC, London, 2015.
- Invited talk, *Eikonal methods in QCD*, Lawrence Berkeley National Laboratory, 2014.
- Plenary talk, *The ubiquitous top quark*, New Directions in Theoretical Physics, Edinburgh, 2014.
- Conference summary talk, Top 2013, Durbach, Germany.
- Higgs Centre Colloquium, *Perturbation theory to all orders for collider physics*, Edinburgh, 2013.
- Plenary talk, *The theory of single-top production*, DESY Theory Workshop, Hamburg, 2012.
- Plenary talk, *Top quark physics*, Lepton-Photon, Mumbai, 2011.
- Plenary talk, *Top physics: theoretical aspects*, Physics at the LHC, Perugia, 2011.
- Conference summary talk, Loopfest 2010, Stony Brook, USA.
- Opening talk, *Next-to-eikonal exponentiation*, CERN Theory Institute, 2010.
- Plenary talk *Heavy Flavor: From Top to Bottom (and Charm)*, MIT-Berkeley workshop, 2010.
- Plenary talk *Top quark physics at the ILC and hadron colliders* Linear Collider Workshop, Perugia, Italy, 2009.
- Plenary talk, *Developments in QCD and generators*, DIS conference, London, April 2008.
- Plenary talk, *Top quark in theory*, Hadron Collider Physics conference, Galena, IL, USA, 2008.

## Outreach

- Initiated and co-organized bringing Physikshow (Bonn) to the University of Amsterdam, april 2019.
- For Nikhef open day, I started the Big Bang Theory corner, where visitors can ask theorists any question about theory.

A selection of outreach talks:

- *A quantum world behind the decimal point*, Studium Generale, Maastricht University, March 2018.
- *Surprises in Quantum Chromodynamics*, Dutch Physical Society, 2015.
- *Beyond the Higgs boson*, Physica Conference, Leiden, 2014.
- Colloquium, *On the 2013 Nobel Prize*, Groningen University, 2014.
- *On the origin of mass*, Symposium at the Royal Academy of Sciences, Amsterdam, 2012.
- *Physics at the Large Hadron Collider*, Studium Generale, Maastricht University, 2010.
- *Weak interactions*, Student symposium at Radboud University, Nijmegen, 2010.
- *The theory of almost everything*, Nikhef Open Day, 2009.
- *LHC*, Natuurkundig Gezelschap, Utrecht, 2008.
- *Broken Symmetries*, Physics Colloquium, Utrecht, 2008.
- *The Standard Model*, Physics Student association, Leiden, 2008.

## Publications

### Books

1. Wit, B. de, E. Laenen, and J. Smith (to appear in 2019). *Field Theory in Particle Physics*. 800 pages. Cambridge University Press.

Publication [83], with UvA PhD student Rietkerk, was selected for the cover of Physical Review Letters.

### Refereed research papers

1. Bastianelli, F., G. W. Delius, and E. Laenen (1989). Free Quantum Action and BRST Charge for the Superparticle. *Phys. Lett.* **B229**, 223–226.
2. Essler, F., M. Hatsuda, E. Laenen, W. Siegel, J. P. Yamron, T. Kimura, and A. R. Mikovic (1991). Covariant quantization of the first ilk superparticle. *Nucl. Phys.* **B364**, 67–84.
3. Essler, F., E. Laenen, W. Siegel, and J. P. Yamron (1991). BRST operator for the first ilk superparticle. *Phys. Lett.* **B254**, 411–416.

4. Laenen, E. and P. van Nieuwenhuizen (1991). The Regularized phase space path integral measure for Maxwell fields coupled to background gravity. *Annals Phys.* **207**, 77–102.
5. Laenen, E., S. Riemersma, J. Smith, and W. L. van Neerven (1992). On the heavy quark content of the nucleon. *Phys. Lett.* **B291**, 325–328.
6. Laenen, E., J. Smith, and W. L. van Neerven (1992). All order resummation of soft gluon contributions to heavy quark production in hadron hadron collisions. *Nucl. Phys.* **B369**, 543–599.
7. Laenen, E. (1993a). A note on the lower limit of the top quark production rate at the Tevatron.
8. Laenen, E. and E. Levin (1993). A note on 'hot spot' hunting in deep inelastic scattering. *J. Phys.* **G19**, 1582–1586. arXiv: hep-ph/9305341 [hep-ph].
9. Laenen, E., S. Riemersma, J. Smith, and W. L. van Neerven (1993a).  $\mathcal{O}(\alpha_S)$  corrections to heavy flavor inclusive distributions in electroproduction. *Nucl. Phys.* **B392**, 229–250.
10. Laenen, E., S. Riemersma, J. Smith, and W. L. van Neerven (1993b).  $\mathcal{O}(\alpha_S)$  corrections to the photon structure functions  $F_2^\gamma(x, Q^2)$  and  $F_L^\gamma(x, Q^2)$ . arXiv: hep-ph/9303214 [hep-ph].
11. Laenen, E., S. Riemersma, J. Smith, and W. L. van Neerven (1993c). Complete  $\mathcal{O}(\alpha_S)$  corrections to heavy flavor structure functions in electroproduction. *Nucl. Phys.* **B392**, 162–228.
12. Laenen, E., E. Levin, and A. G. Shuvaev (1994). Anomalous dimensions of high twist operators in QCD at  $N \rightarrow 1$  and large  $Q^2$ . *Nucl. Phys.* **B419**, 39–58. arXiv: hep-ph/9308294 [hep-ph].
13. Laenen, E. and E. Levin (1994). Parton densities at high-energy. *Ann. Rev. Nucl. Part. Sci.* **44**, 199–246.
14. Laenen, E., S. Riemersma, J. Smith, and W. L. van Neerven (1994). Complete next-to-leading order QCD corrections to the photon structure functions  $F_2^\gamma(x, Q^2)$  and  $F_L^\gamma(x, Q^2)$ . *Phys. Rev.* **D49**, 5753–5768. arXiv: hep-ph/9308295 [hep-ph].
15. Laenen, E., J. Smith, and W. L. van Neerven (1994). Top quark production cross-section. *Phys. Lett.* **B321**, 254–258. arXiv: hep-ph/9310233 [hep-ph].
16. Laenen, E. and E. Levin (1995). A New evolution equation. *Nucl. Phys.* **B451**, 207–230. arXiv: hep-ph/9503381 [hep-ph].
17. Giele, W. T., S. Keller, and E. Laenen (1996a).  $W$  plus heavy quark production at the Tevatron. *Nucl. Phys. Proc. Suppl.* **51C**, 255–260. arXiv: hep-ph/9606209 [hep-ph].
18. Giele, W. T., S. Keller, and E. Laenen (1996b). QCD corrections to  $W$  boson plus heavy quark production at the Tevatron. *Phys. Lett.* **B372**, 141–149. arXiv: hep-ph/9511449 [hep-ph].
19. Kramer, M. and E. Laenen (1996). Heavy quark correlations in direct photon-photon collisions. *Phys. Lett.* **B371**, 303–309. arXiv: hep-ph/9511358 [hep-ph].
20. Laenen, E. and S. Riemersma (1996). Heavy quark production in e gamma scattering. *Phys. Lett.* **B376**, 169–176. arXiv: hep-ph/9602258 [hep-ph].
21. Laenen, E. and G. A. Schuler (1996). Radiative corrections to e gamma scattering. *Phys. Lett.* **B374**, 217–224. arXiv: hep-ph/9508381 [hep-ph].
22. Contopanagos, H., E. Laenen, and G. F. Sterman (1997). Sudakov factorization and resummation. *Nucl. Phys.* **B484**, 303–330. arXiv: hep-ph/9604313 [hep-ph].
23. Kramer, M., E. Laenen, and M. Spira (1998). Soft gluon radiation in Higgs boson production at the LHC. *Nucl. Phys.* **B511**, 523–549. arXiv: hep-ph/9611272 [hep-ph].
24. Laenen, E., G. Oderda, and G. F. Sterman (1998). Resummation of threshold corrections for single particle inclusive cross-sections. *Phys. Lett.* **B438**, 173–183. arXiv: hep-ph/9806467 [hep-ph].
25. Bassler, U., E. Laenen, A. Quadt, and H. Schellman (1999). Structure function working group at DIS '99: Summary. *Nucl. Phys. Proc. Suppl.* **79**, 701–722. arXiv: hep-ex/9906027 [hep-ex].
26. Keller, S. and E. Laenen (1999). Next-to-leading order cross-sections for tagged reactions. *Phys. Rev.* **D59**, 114004. arXiv: hep-ph/9812415 [hep-ph].
27. Laenen, E. and S.-O. Moch (1999). Soft gluon resummation for heavy quark electroproduction. *Phys. Rev.* **D59**, 034027. arXiv: hep-ph/9809550 [hep-ph].
28. Alderweireld, T. et al. (2000a). Report of the gamma gamma event generators working group.
29. Alderweireld, T. et al. (2000b). Reports of the Working Groups on Precision Calculations for LEP2 Physics: Proceedings. Event generators for gamma gamma physics.
30. Frixione, S., M. Krämer, and E. Laenen (2000a).  $D^*$  production in two photon collisions. *Nucl. Phys.* **B571**, 169–184. arXiv: hep-ph/9908483 [hep-ph].

31. Frixione, S., M. Krämer, and E. Laenen (2000b). Heavy flavor production in two photon collisions. *J. Phys.* **G26**, 723–726. arXiv: hep-ph/0002112 [hep-ph].
32. Heide, J. van der, E. Laenen, L. Phaf, and S. Weinzierl (2000). Helicity amplitudes for single top production. *Phys. Rev.* **D62**, 074025. arXiv: hep-ph/0003318 [hep-ph].
33. Laenen, E. (2000a). Heavy flavors at colliders. *J. Phys.* **G26**, 493–504. arXiv: hep-ph/9912349 [hep-ph].
34. Laenen, E. (2000b). NLO calculations for charm production in DIS. *J. Phys.* **G26**, 734–736. arXiv: hep-ph/9912350 [hep-ph].
35. Laenen, E., G. F. Sterman, and W. Vogelsang (2000c). Higher order QCD corrections in prompt photon production. *Phys. Rev. Lett.* **84**, 4296–4299. arXiv: hep-ph/0002078 [hep-ph].
36. Harris, B. W., E. Laenen, L. Phaf, Z. Sullivan, and S. Weinzierl (2001). Fully differential QCD corrections to single top quark final states. *Int. J. Mod. Phys.* **A16S1A**, 379–381. arXiv: hep-ph/0102126 [hep-ph].
37. Kidonakis, N., E. Laenen, S. Moch, and R. Vogt (2001). Sudakov resummation and finite order expansions of heavy quark hadroproduction cross-sections. *Phys. Rev.* **D64**, 114001. arXiv: hep-ph/0105041 [hep-ph].
38. Laenen, E., G. F. Sterman, and W. Vogelsang (2001). Recoil and threshold corrections in short distance cross-sections. *Phys. Rev.* **D63**, 114018. arXiv: hep-ph/0010080 [hep-ph].
39. Eynck, T. O., E. Laenen, L. Phaf, and S. Weinzierl (2002). Comparison of phase space slicing and dipole subtraction methods for  $\gamma^* \rightarrow Q\bar{Q}$ . *Eur. Phys. J.* **C23**, 259–266. arXiv: hep-ph/0109246 [hep-ph].
40. Harris, B. W., E. Laenen, L. Phaf, Z. Sullivan, and S. Weinzierl (2002). The Fully differential single top quark cross-section in next to leading order QCD. *Phys. Rev.* **D66**, 054024. arXiv: hep-ph/0207055 [hep-ph].
41. Eynck, T. O., E. Laenen, and L. Magnea (2003b). Exponentiation of the Drell-Yan cross-section near partonic threshold in the DIS and MS-bar schemes. *JHEP* **06**, 057. arXiv: hep-ph/0305179 [hep-ph].
42. Kidonakis, N., E. Laenen, S. Moch, and R. Vogt (2003a). Understanding bottom production. *Nucl. Phys.* **A715**, 549–552. arXiv: hep-ph/0208119 [hep-ph].
43. Kidonakis, N., E. Laenen, S. Moch, and R. Vogt (2003b). Threshold effects in charm hadroproduction. *Phys. Rev.* **D67**, 074037. arXiv: hep-ph/0212173 [hep-ph].
44. Laenen, E. (2004). Resummation for observables at TeV colliders. *Pramana* **63**, 1225–1249.
45. Mathews, P., R. Basu, D. Indumathi, E. Laenen, S. Majhi, A. Misra, A. Mukherjee, and W. Vogelsang (2004). Working group report: Quantum chromodynamics. *Pramana* **63**, 1367–1379.
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47. Laenen, E. (2005). LO, NLO, NNLO and resummed predictions. *AIP Conf. Proc.* **753**, [45(2005)], 45–66.
48. Baines, J. et al. (2006). Heavy quarks (Working Group 3): Summary Report for the HERA-LHC Workshop Proceedings. arXiv: hep-ph/0601164 [hep-ph].
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51. Laenen, E. and L. Magnea (2006b). Threshold resummation for electroweak annihilation from DIS data. *Phys. Lett.* **B632**, 270–276. arXiv: hep-ph/0508284 [hep-ph].
52. Basu, R., E. Laenen, A. Misra, and P. Motylinski (2007). Soft-collinear effects in prompt photon production. *Phys. Rev.* **D76**, 014010. arXiv: 0704.3180 [hep-ph].
53. Frixione, S., E. Laenen, P. Motylinski, and B. R. Webber (2007). Angular correlations of lepton pairs from vector boson and top quark decays in Monte Carlo simulations. *JHEP* **04**, 081. arXiv: hep-ph/0702198 [HEP-PH].
54. Frixione, S., E. Laenen, P. Motylinski, B. R. Webber, and C. D. White (2008). Single-top hadroproduction in association with a W boson. *JHEP* **07**, 029. arXiv: 0805.3067 [hep-ph].
55. Laenen, E., L. Magnea, and G. Stavenga (2008). On next-to-eikonal corrections to threshold resummation for the Drell-Yan and DIS cross sections. *Phys. Lett.* **B669**, 173–179. arXiv: 0807.4412 [hep-ph].
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58. Laenen, E. and D. Wackerth (2009). Radiative corrections for the LHC and linear collider era. *Ann. Rev. Nucl. Part. Sci.* **59**, 367–396.
59. White, C. D., S. Frixione, E. Laenen, and F. Maltoni (2009). Isolating  $Wt$  production at the LHC. *JHEP* **11**, 074. arXiv: 0908.0631 [hep-ph].
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61. Forte, S., E. Laenen, P. Nason, and J. Rojo (2010). Heavy quarks in deep-inelastic scattering. *Nucl. Phys.* **B834**, 116–162. arXiv: 1001.2312 [hep-ph].
62. Gardi, E., E. Laenen, G. Stavenga, and C. D. White (2010). Webs in multiparton scattering using the replica trick. *JHEP* **11**, 155. arXiv: 1008.0098 [hep-ph].
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64. Kulesza, A., W. Beenakker, S. Brensing, M. Kramer, E. Laenen, L. Motyka, and I. Niessen (2010). Soft gluon resummation for squark and gluino pair-production at hadron colliders. *PoS RADCOR2009*, 010.
65. Laenen, E. (2010). Top physics at the ILC and hadron colliders. *Nuovo Cim.* **C033N2**, 59–65.
66. Laenen, E., L. Magnea, G. Stavenga, and C. D. White (2010). On next-to-eikonal exponentiation. *Nucl. Phys. Proc. Suppl.* **205-206**, 260–265. arXiv: 1007.0624 [hep-ph].
67. Weydert, C., S. Frixione, M. Herquet, M. Klasen, E. Laenen, T. Plehn, G. Stavenga, and C. D. White (2010). Charged Higgs boson production in association with a top quark in MC@NLO. *Eur. Phys. J.* **C67**, 617–636. arXiv: 0912.3430 [hep-ph].
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70. Laenen, E. (2011). Theory overview of heavy flavour production. *PoS BEAUTY2011*, 033.
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