

## LIST OF PUBLICATIONS (PEER REVIEWED)

Actis S, Arbuzov A, Balossini G, Beltrame P, Bignamini C, Bonciani R, Calame CMC, Cherepanov V, Czakon M, Czyz H, Denig A, Eidelman S, Fedotovitch GV, Ferroglia A, Gluza J, Grzelinska A, Gunia M, Hafner A, Ignatov F, Jadach S, Jegerlehner F, Kalinowski A, Kluge W, Korchin A, Kuhn JH, Kuraev EA, Lukin P, Mastrolia P, Montagna G, Muller SE, Nguyen F, Nicrosini O, Nomura D, Pakhlova G, Pancheri G, Passera M, Penin A, Piccinini F, Placzek W, Przedzinski T, Remiddi E, Riemann T, Rodrigo G, Roig P, Shekhovtsova O, Shen CP, Sibidanov AL, Teubner T, Trentadue L, Venanzoni G, van der Bij JJ, et al.

*Quest for precision in hadronic cross sections at low energy: Monte Carlo tools vs. experimental data*

EUROPEAN PHYSICAL JOURNAL C **66**, 585 (2010)

Binoth T, Boudjema F, Dissertori G, Lazopoulos A, Denner A, Dittmaier S, Frederix R, Greiner N, Hoche S, Giele W, Skands P, Winter J, Gleisberg T, Archibald J, Heinrich G, Krauss F, Maitre D, Huber M, Huston J, Kauer N, Maltoni F, Oleari C, Passarino G, Pittau R, Pozzorini S, Reiter T, Schumann S, Zanderighi G

*A proposal for a standard interface between Monte Carlo tools and one-loop programs*

COMPUTER PHYSICS COMMUNICATIONS **181**, 1612 (2010)

Bredenstein A, Denner A, Dittmaier S, Pozzorini S

*NLO QCD corrections to  $t(t)$ / $\bar{b}(b)$  production at the LHC: 2. Full hadronic results*

JOURNAL OF HIGH ENERGY PHYSICS **1003**, 021 (2010)

Campanario F, Englert C, Kallweit S, Spannowsky M, Zeppenfeld D *NLO*

*QCD corrections to WZ plus jet production with leptonic decays*

JOURNAL OF HIGH ENERGY PHYSICS **1007**, 076 (2010)

Carron J, Rosenfelder R

*Variational approximations in a path integral description of potential scattering*

EUROPEAN PHYSICAL JOURNAL A **45**, 193 (2010)

Denner A, Dittmaier S, Gehrman T, Kurz C

*Electroweak corrections to hadronic event shapes and jet production in  $e(+)e(-)$  annihilation*

NUCLEAR PHYSICS B **836**, 37 (2010)

Rosenfelder R

*Exact Path-Integral Representations for the T-Matrix in Nonrelativistic Potential Scattering*

FEW-BODY SYSTEMS DOI **10.1007/s00601-0**, 0 (2010)

## CONFERENCE, WORKSHOP AND SEMINAR CONTRIBUTIONS

Andersen J.R. et al. – for PSI: Kallweit St. (SM and NLO Multileg Working Group)

*The SM and NLO Multileg Working Group: Summary Report*

Presented at 6<sup>th</sup> Les Houches Workshop: Physics at TeV Colliders, Les Houches, France,

June 8 - 26 2009

arXiv: 1003.1241 [hep-ph]

Bredenstein A., Denner A., Dittmaier St., Pozzorini St.

*NLO QCD corrections to top anti-top bottom anti-bottom production at the LHC..*

FR-PHENO-2010-11, PSI-PR-10-07, CERN-PH-TH-2009-018. Jan 2010. 1 pp.

e-Print: arXiv:1001.4727 [hep-ph]

Published in PoS(RADCOR2009)004

Bredenstein A., Denner A., Dittmaier St., Pozzorini St. .  
*Production of  $t\bar{t}b\bar{b}$  at the LHC at NLO QCD.*

Jun 2010. 7 pp.

Published in Nucl.Phys.Proc.Suppl. 205-206 (2010) 80-85

Contributed to SPIRES Conference C10/04/25

e-Print: arXiv:1006.2653 [hep-ph]

Brooijmans G. et al..(for PSI: Spira M.)

*New Physics at the LHC. A Les Houches Report: Physics at TeV Colliders 2009 - New Physics Working Group*

Proceedings of 6th Les Houches Workshop

arXiv:1005.1229 [hep-ph]

Butterworth J.M. et al. (for PSI: Spira M.)

*The Tools and Monte Carlo working group Summary Report.*

Proceedings of 6th Les Houches Workshop

arXiv:1003.1643 [hep-ph]

Chachamis G.

*Towards  $p p \rightarrow W W$  at NNLO*

Radcor 2009, Ascona, Switzerland, October 25 - 30 2009

published in PoS(RADCOR2009)059

Chachamis G.

*The SM and NLO Multileg Working Group: Summary report*

6<sup>th</sup> Les Houches Workshop: Physics at TeV Colliders, Les Houches, France, June 8 - 26 2009

Denner A., Dittmaier St., Kasprzik T., Muck A.

*Electroweak precision for  $W$ +jet production.*

FR-PHENO-2010-001, PSI-PR-10-03, SFB-CPP-10-05, TTK-10-05, TTP10-01. Jan 2010. 1 pp.

Published in PoS(RADCOR2009)058

Prepared for 9th International Symposium on Radiative Corrections SPIRES Conference C09/10/25.1

e-Print: arXiv:1001.2468 [hep-ph]

Denner A., Dittmaier St., Gehrman Th., Kurz C.

*Electroweak corrections to hadronic event shapes.*

FR-PHENO-2010-10, PSI-PR-10-06, ZU-TH-01-10. Jan 2010. 6 pp.

Published in PoS(RADCOR2009)056

Prepared for 9th International Symposium on Radiative Correc SPIRES Conference C09/10/25.1 e-

Print: arXiv:1001.4467 [hep-ph]

Dittmaier St., Krämer M., Spira M., Walser M.

*Associated Charged Higgs Production with Heavy Quarks: SUSY QCD Corrections*

Proceedings 9th International Symposium on Radiative Corrections

Published in PoS(RADCOR2009)046

Dittmaier St., Kallweit St., Uwer P.

*NLO QCD corrections to  $WW$ +jet production including leptonic  $W$  decays at hadron colliders*

Proceedings of 9<sup>th</sup> International Symposium on Radiative Corrections: Applications of Quantum Field

Theory to Phenomenology (RADCOR2009), Ascona, Switzerland, October 25 - 30 2009

PoS(RADCOR2009)003

Kallweit St.

SM and NLO Multileg Working Group Collaboration (J.R. Andersen et al.). *The SM and NLO Multileg Working Group: Summary report.*

March 2010. 169 pp.

Presented at SPIRES Conference C09/06/08.1

e-Print: arXiv:1003.1241 [hep-ph]

Li Q.  
*ZZ+jet and Graviton+jet at NLO QCD: recent applications using GOLEM methods*  
Published in PoS(RADCOR2009)006

Mühlleitner M., Rzehak H., Spira M.  
*SUSY-QCD corrections to MSSM Higgs boson production via gluon fusion.*  
Proceedings 9th International Symposium on Radiative Corrections  
Published in PoS(RADCOR2009)043  
arXiv:1001.3214 [hep-ph]

Nath P., Spira M. et al.  
*The Hunt for New Physics at the Large Hadron Collider*  
Proceedings SUSY09 Conference  
Published in Nucl.Phys.Proc.Suppl. 200-202 (2010) 185-417  
arXiv:1001.2693 [hep-ph]

Spira M.  
*Higgs Physics at  $e^+e^-$  and Photon Colliders*  
Proceedings Photon09, DESY Hamburg, Germany, January 2010

## INVITED TALKS

Actis S.  
*NLO electroweak corrections to Higgs production in gluon-gluon fusion*  
LPT seminar, Orsay, France, February 25, 2010

Denner A.  
*Branching Ratios -- SM*  
Freiburg, Germany, April 12 – 13, 2010  
Inauguration Workshop of the LHC Higgs Cross Section Working Group

Denner A.  
*NLO QCD corrections to  $t$  anti- $t$   $b$  anti- $b$  production at the LHC*  
Wörlitz, Germany, April 25 – 30, 2010  
Loops and Legs in Quantum Field Theory

Denner A.  
*Die Welt der kleinsten Teilchen: Expedition ins Innerste der Materie*  
Münnerstadt, June 16, 2010  
Schönbornkolleg Münnerstadt

Denner A.  
*Multileg NLO*  
Trento, Italy, September 26 - October 01, 2010  
Workshop: QCD at the LHC

Kallweit St.  
*NLO QCD corrections to  $VV$ +jet production*  
DPG Frühjahrstagung der Deutschen Physikalischen Gesellschaft, Bonn, Germany, March 15, 2010

Li Q.  
*Higgs production with a 4th generation*  
MadGraph 2010 : BSM and more", Bruxelles , Belgium, October 7, 2010

Spira M.  
*Supersymmetric Higgs Yukawa Couplings to Bottom Quarks at NNLO*  
International Workshop on Linear Colliders 2010, CERN, Switzerland, Oktober 2010

Spira M.  
*Codes: New Developments*  
Higgs Days, Santander, Spain, Oktober 2010

Spira M.  
*Supersymmetric Higgs Yukawa Couplings to Bottom Quarks at NNLO*  
Conference SUSY10, Bonn, Germany, August 2010

Spira M.  
*Theory BSM*  
Workshop "Higgs Hunting", Orsay, France, July 2010

Spira M.  
*Progress Report on  $t\bar{t}H$  Cross Section*  
Workshop of LHC Higgs Cross Section Working Group, CERN, Switzerland, July 2010

Spira M.  
*4-Flavour  $bbH$  Calculations*  
Workshop of LHC Higgs Cross Section Working Group, CERN, Switzerland, July 2010

Spira M.  
*Neutral Higgs Production - Status and Tools: Michael's view*  
Kickoff Meeting of the  $ggh$  and  $QQh$  Working Group, Wuppertal, Germany, March 2010

## LECTURES AND COURSES

Spira M.  
*Phänomenologie der Physik jenseits des Standardmodells -*  
FS 2010 (ab 7.Semester, mit Filip Moortgat)  
Vorlesung: Mittwoch 12:45 - 14:30 Uhr HIT F 12  
Übungen: Mittwoch 14:45 - 15:30 Uhr HIT F 12

## MEMBERSHIPS IN COMMITTEES

Spira M.  
- Convenor of the working group "Electroweak Gauge Theories and Alternative Theories" of the ECFA Study of Physics and Detectors for a Linear Collider  
- Convenor of the working group " $t\bar{t}H$  Higgs Associated Production Process" and the working group "MSSM Neutral Higgs of the LHC Higgs Cross Section Working Group"

## CONFERENCE ORGANIZATION

Spira M., Denner A.  
PSI Zuoz Summerschool "Gearing up for LHC Physics"  
Lyceum Alpinum Zuoz, Switzerland, August 1 -7, 2010