

PUBLICATIONS 2007

- E. Accomando, A. Denner and S. Pozzorini,
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- A. Bredenstein, A. Denner, S. Dittmaier and M. M. Weber,
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JHEP **0702**, 080 (2007).
- M. Ciccolini, A. Denner and S. Dittmaier,
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- A. Denner, B. Jantzen and S. Pozzorini,
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Nucl. Phys. **B 761**, 1 – 62 (2007).
- A. Djouadi, M. M. Mühlleitner and M. Spira,
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- M. Frank, T. Hahn, S. Heinemeyer, W. Hollik, H. Rzehak and G. Weiglein,
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- A. Freitas, P. Z. Skands, M. Spira and P. M. Zerwas,
Examining the Identity of Yukawa with Gauge Couplings in Supersymmetric QCD at LHC
JHEP **0707**, 025 (2007).
- S. Heinemeyer, W. Hollik, H. Rzehak and G. Weiglein,
The Higgs Sector of the Complex MSSM at Two-Loop Order: QCD Contributions
Phys. Lett. **B 652**, 300 – 309 (2007).

CONTRIBUTIONS TO CONFERENCES AND WORKSHOPS

- A. Bredenstein, A. Denner, S. Dittmaier and M. M. Weber,
Precision Calculations for $H \rightarrow WW/ZZ \rightarrow 4$ Fermions with PROPHECY_{4f}
International Linear Collider Workshop 2007 (LCWS07 and ILC07), Hamburg (Germany), 30
May - 3 Jun 2007
arXiv:0708.4123 [hep-ph].

M. Ciccolini, A. Denner and S. Dittmaier,
Electroweak and QCD Corrections to Higgs-Boson Production in Vector-Boson Fusion at the LHC

8th International Symposium on Radiative Corrections (RADCOR07), Florence (Italy), October 1-5, 2007

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J. Ferrando, T. Nunnemann, M. Spira and M. Wessels,

Summary of the Electroweak and Beyond the Standard Model Working Group

Proceedings of 15th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS2007), Munich (Germany), 16 – 20 April 2007, vol. 1 199 – 215.

T. Hahn, S. Heinemeyer, W. Hollik, H. Rzehak, G. Weiglein and K. Williams,

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T. Hahn, S. Heinemeyer, W. Hollik, H. Rzehak and G. Weiglein,

Consistent Treatment of Imaginary Contributions to Higgs-Boson Masses in the MSSM

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B. Jantzen,

Two-Loop Electroweak NLL Corrections: From Massless to Massive Fermions

International Linear Collider Workshop ILC/LCWS 2007, DESY, Hamburg (Germany), 30 May – 3 June 2007

arXiv:0709.2311 [hep-ph].

A. Mück,

Precise Predictions for MSSM Higgs-Boson Production in Bottom-Quark Fusion

15th International Conference on Supersymmetry and the Unification of Fundamental Interactions (SUSY07), Karlsruhe (Germany), 26 July - 1 August 2007

arXiv:0710.2409 [hep-ph].

R. Rosenfelder,

Perturbative Results Without Diagrams

Path Integrals 07 - New Trends and Perspectives, Dresden (Germany), September 23 - 28, 2007

arXiv:0711.3989 [hep-th].

PUBLISHED PROCEEDINGS (from previous conferences)

G. A. Blair *et al.* (SPA Collaboration, PSI: M. Spira),
SPA Project: Supersymmetry Parameter Analysis at LHC/ILC
Proceedings of the 14th International Workshop on Deep Inelastic Scattering (DIS 2006), Tsukuba
(Japan), 20 – 24 April 2006, 369 – 372.

T. Hahn, S. Heinemeyer, W. Hollik, H. Rzehak, G. Weiglein and K. Williams,
Higher-order corrected Higgs bosons in FeynHiggs 2.5
International Linear Collider Workshop (LCWS06), Bangalore (India), 9 – 13 March 2006
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S. Heinemeyer, W. Hollik, H. Rzehak and G. Weiglein,
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SUSY06, Irvine, California (USA), 12 – 17 June 2006
AIP Conf. Proc. **903**, 149 (2007).

M. Spira, P. Niezurawski, M. Krawczyk and A.F. Zarnecki,
Heavy neutral MSSM Higgs Bosons at the PLC: A Comparison of Two Analyses
International Linear Collider Workshop (LCWS06), Bangalore (India), 9 – 13 March 2006.
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INVITED TALKS

A. Denner,
Techniques for One-Loop Tensor Integrals in Many-Particle Processes
Physics at TeV Colliders, Les Houches (France) , 11 – 29 June 2007.

A. Denner,
Electroweak and QCD Corrections to Higgs Production in Vector-Boson Fusion at the LHC
Physics at TeV Colliders, Les Houches (France) , 11 – 29 June 2007.

A. Denner,
Electroweak and QCD Corrections to Higgs Production in Vector-Boson Fusion at the LHC
RADCOR07: 8th International Symposium on Radiative Corrections, Application of Quantum
Field Theory to Electroweak Phenomenology, Florence (Italy), 1 – 5 October 2007.

A. Denner,
Electroweak Physics at the LHC: Theory
Kick-off Workshop: Physics at the Terascale, Hamburg (Germany), 3 – 5 December 2007.

B. Jantzen,
Evaluation of Electroweak Two-Loop Corrections in the High Energy Limit
Particle Physics Seminar, University of Zürich (Switzerland), 26 June 2006.

B. Jantzen,
Two-Loop Electroweak Logarithms at High Energies
Symposium on Precision Calculations for Hadron and Lepton Colliders, Karlsruhe (Germany),
23 November 2006.

K. Kampf,
 π_0 *Decays: Overview and Recent Studies*
EuroFlavour '07 Conference, Orsay (France), 16 November 2007.

A. Mück,
Precise Predictions for MSSM Higgs-Boson Production in Bottom-Quark Fusion
LHC-D Higgs Workshop, Freiburg (Germany), 8 – 9 October 2007.

H. Rzehak,
The Higgs Sector in the MSSM with CP Phases at Higher Orders
SUSY07, Universität Karlsruhe (Germany), 26 July – 1 August, 2007.

H. Rzehak,
The Higgs Sector in the MSSM with CP Phases
Particle Physics Seminar, Universität Zürich (Switzerland), 6 February 2007.

H. Rzehak,
The Higgs Sector in the CP-Violating MSSM at $\mathcal{O}(\alpha_t, \alpha_s)$
RADCOR07: 8th International Symposium on Radiative Corrections, Application of Quantum
Field Theory to Electroweak Phenomenology, Florence (Italy), 1 – 5 October 2007.

M. Spira,
*Summary of the Electroweak and Beyond the Standard Model Working Group, [convenor of elec-
troweak WG]*
DIS07, Munich (Germany), 16 – 20 April 2007.

M. Spira,
Higgs Production and Profile at the LHC
Symposium 'Collider Physics at the Terascale', DESY Hamburg (Germany), 29 May 2007.

M. Spira,
Comments about Higgs Boson Production in FeynHiggs
Workshop 'Physics at TeV Colliders', Les Houches (France), 20 – 29 June 2007.

M. Spira,
Higgs Production via Gluon Fusion: SUSY-QCD corrections
SUSY07 Conference, Karlsruhe (Germany), 26 July – 1 August 2007.

M. Spira,
Associated MSSM Higgs Production with Top and Bottom Quarks at NLO
LHC-D Workshop, Higgs WG, Freiburg (Germany), 8 – 9 October 2007.

OUTREACH AND OTHER SCIENTIFIC ACTIVITIES

K. Gabathuler and R. Rosenfelder,
Die Welt der Elementarteilchen

Bulletin SEV/AES (Verband für Elektro-,Energie- und Informationstechnik), **7**, 9 – 13 (2007).

LECTURES AND COURSES

A. Denner: "Das Standardmodell der elektroschwachen Wechselwirkung und dessen Erweiterungen", ETH Zürich, HS 07.

R. Rosenfelder: "Pfadintegrale in der Quantenphysik", ETH Zürich, HS 07.

M. Spira and M. Ciccolini: "LTP-Colloquium", PSI, FS 07.

M. Spira and H. Rzehak: "LTP-Colloquium", PSI, HS 07.

M. Spira: "Einführung in die Quantenchromodynamik", ETH Zürich, FS 07.

M. Spira (with F. Moortgat): "Jenseits des Standardmodells", ETH Zürich, HS 07.

THESIS

M. Walser,

NLO QCD and SUSY-QCD Corrections to Associated MSSM Higgs Production with Heavy Quarks at Hadron Colliders

Doctoral thesis, ETH Zürich, 18 December 2007

Advisor: M. Spira (PSI).

COMMITTEES

R. Rosenfelder:

Member of the Research Committee BVR at PSI.

M. Spira:

Convenor of the working group 'Electroweak Gauge Theories and Alternative Theories' of the 'ECFA Study of Physics and Detectors for a Linear Collider'.