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Personal information

- Date of birth: January 23, 1966.
- Place of birth: Torino, Italy.
- Citizenship: Italian.
- Marital status: Married, one child.
- Languages: Italian, English, German, French.

Degrees

- April 1995, Ph. D. in Physics, New York University, Advisor: Alberto Sirlin.
Title of dissertation: *Precision tests of the Standard Model: evidence for radiative corrections and higher order effects.*
- October 1990, Degree in Physics (Laurea in Fisica) at University of Torino, Italy, *cum laude*. Specialization in Theoretical Physics. Supervisors: Enrico Predazzi, Mauro Anselmino. Topic of undergraduate research: Deep Inelastic Scattering of neutrinos off polarized nucleon targets and connection with the proton spin problem.
- July 1986, Music Degree in Flute, Conservatorio di Musica “G. Verdi”, Torino, Italy.

Additional education

- July 1992 Cargese Summer Institute on Quantitative Particle Physics in Cargese, France.
- February 1993 LISHEP 93, Lafex International School on High Energy Physics, Rio de Janeiro, Brasil.
- June 1993 TASI 93, Theoretical Advanced Summer Institute, Boulder, Colorado.

Honors

- January 1991 – May 1993, Meyer Fellowship, New York University.
- September 1994 – May 1995, James Arthur Fellowship of the Graduate School of Arts and Science, New York University.
- 1995 Margaret and Herman Sokol Postdoctoral Fellowship Award.

Postdoctoral positions

- September 1, 1995 – September 30, 1997, Postdoctoral position at the Max Planck Institut für Physik, W. Heisenberg Institut, Munich, Germany.
- October 1, 1997 – October 31, 1999, Postdoctoral position at the Technische Universität München, in Prof. A. Buras group.
- November 1, 1999 – October 31, 2001, Fellow at the Theory Division, CERN.
- November 1, 2001 – October 31, 2003, Marie Curie Fellow at the Theory Division, CERN.

Permanent positions

- January 1, 2004 – September 30, 2006, researcher at INFN, Turin. INFN is the italian national institute for nuclear research.
- October 2006 – September 2011, Associate Professor of Theoretical Physics at the University of Torino.
- Since October 2011, Professor of Theoretical Physics at the University of Torino.

Research stays

- July 2011, Technische Univ. Muenchen, 1 month.
- June-July 2012, Universität Siegen, 3 weeks.
- November 2012, CERN Theory Group, 1 month.

Teaching Experience

- 1993-94, Teaching Assistant to the courses of General Physics, New York University.
- 1994-95, Adjunct Instructor of Physics, General Physics, Cooper Union for the Advancement of Science and Art, New York.
- 1997-1999, Assistant to the Advanced Quantum Mechanics and Particle Physics courses (1997-99); supervision of Diploma (undergraduate) and Ph.D. students (N. Pott e U. Haisch) in Prof. Buras group, Technische Universität München.
- 1999-2002, research supervision of U. Haisch, Ph.D. student in Prof. Buras group, Technische Universität München. U. Haisch has received his Ph.D. in Physics *summa cum laude* in October 2002 and is now lecturer at the University of Oxford.
- August 2000, Discussion Leader at the *Year 2000 European School of High-Energy Physics* organized by CERN and JINR at Caramulo, Portugal.
- 2001-2003 collaboration in the research supervision of Martin Gorbahn, Ph.D. student in Prof. Buras group, Technische Universität München. M. Gorbahn has received his Ph.D. *summa cum laude* in October 2003 and is presently senior postdoc in Munich.

- 2005-2006 supervision of one Master student, University of Torino.
- 2006, *Electroweak physics and the LHC: an introduction to the Standard Model*, 4 hours course at the Italo-Hellenic School of Physics, Martignano (LE), 12-18 june 2006.
- 2006, *Physics for computer scientists*, 54 hours, University of Torino.
- 2007-2010 supervision of Paolo Giordano, PhD student, graduated in Feb. 2010.
- 2007, *Analytic and Statistical Mechanics*, 48 hours; *Relativistic Quantum Mechanics*, 48 hours; University of Torino.
- 2008, *Analytic and Statistical Mechanics*, 48 hours; *Relativistic Quantum Mechanics*, 48 hours; University of Torino.
- April 2008, *Introduction to heavy flavour physics*, 10 hours, University of Milan.
- June 2008, *Introduction to supersymmetry*, 3 hours, University of Buenos Aires.
- 2009, *Analytic and Statistical Mechanics*, 48 hours; *Relativistic Quantum Mechanics*, 48 hours; supervision of four bachelor students.
- 2010 *Physics II (waves, relativity, modern physics)*, 40 hours, for maths students, supervision of four bachelor students; *Relativistic Quantum Mechanics*, 48 hours.
- 2011 *Introduction to Physics*, 20 hours for maths students; *Physics II (waves, relativity, modern physics)*, 32 hours, for maths students; *Relativistic Quantum Mechanics*, 48 hours; supervision of three bachelor students and of one master student.
- 2012 *Introduction to Physics*, 10 hours for maths students; *Physics II (waves, relativity, modern physics)*, 32 hours, for maths students; supervision of five bachelor students and a PhD student.
- 2013 *Introduction to Physics*, 10 hours for maths students; *Mathematical Methods for Physics*, 48 hours, for physics majors; *Effective Field Theories for Heavy Quark Physics*, 10 hours, for PhD students; *Physics II (waves, relativity, modern physics)*, 32 hours, for maths majors; *Energy and Environment*, 24 hours for master students; supervision of three bachelor students, a master and a PhD student.
- 2014 *Mathematical Methods for Physics*, 48 hours, for physics majors.

Research Grants

- Individual Marie Curie Reintegration Grant, MERG-CT-2004-511156, for the year september 2004 - august 2005. It covered one postdoc, travel expenses and invitations.
- Research Grant T023, *High precision studies and Montecarlo simulation for the physics of fundamental interactions at recent and future colliders*, of INFN Gruppo IV, with the phenomenology group in Torino, 2004-2013; since June 2009 I am project coordinator.

- Grant PRIN of the Italian Ministry of University and Research (MIUR) with the phenomenology group in Torino, n. 2004021808-009 (2005-2009), national coordinator Riccardo Barbieri.
- Member of the Marie-Curie Research Training Network *HEPTOOLS: Tools and Precision Calculations for Physics Discoveries at Colliders*, contract n. MRTN-CT-2006-035505, 2006-2010.
- In charge of the project *Fundamental Interactions at colliders*, 2 years postdoc funded by Piedmont Region, 9/2008-8/2010.
- Grant PRIN n. 2008H8F9RA_002 (2010-2012) of the Italian Ministry of University and Research (MIUR) with the phenomenology group in Torino, national coordinator Guido Altarelli.
- Member of the project *Innovative Methods for Particle Colliders at the Terascale (IMPACT)*, funded by Compagnia di San Paolo and Università di Torino (2011-2014).
- Grant PRIN n. 2010YJ2NYW_006 (2013-16) of the Italian Ministry of University and Research (MIUR) with the phenomenology group in Torino, national coordinator Guido Martinelli.
- Principal Investigator of PPPP (*Precision Physics for Particle Phenomenology at High-energy Colliders*) funded by INFN for 2014-2016.

Organization and Editorial Experience

- Convener of the session on *Flavor Physics and CP violation*, LEPTRE, XIII meeting on LEP physics, Rome, April 18-20 2001.
- In the Local Organizing Committee of the *Workshop on the CKM Unitarity Triangle*, CERN, February 13-16, 2002. See <http://cern.ch/ckm-workshop>.
- Co-editor with M. Battaglia, A. Buras, and A. Stocchi, of the Proceedings of the *Workshop on the CKM Unitarity Triangle*, hep-ph/0304132, published as a CERN Yellow Book.
- In the Organizing Committee of the second meeting of the series *Workshop on the CKM Unitarity Triangle*, held in Durham, UK, April 5-9, 2003. See <http://cern.ch/ckm-workshop>.
- Convener of the session on *Electroweak Physics*, IFAE 2003, Lecce, April 23-26 2003.
- In the Organizing Committee of the third meeting of the series *Workshop on the CKM Unitarity Triangle*, held in San Diego, March 15-18, 2005. The meeting has had more than 200 participants.
- Leader of a discussion on radiative effects in inclusive B decays, *Workshop on Radiative Corrections in B, D and K Meson Decays*, UCSD, San Diego, March 14, 2005.

- Organizer and leader of a discussion on the inclusive determination of V_{cb} , *Workshop on the CKM Unitarity Triangle*, UCSD, San Diego, March 15-18, 2005.
- In the Organizing Committee of SUSY 2005, held in Durham, July 2005.
- Convener of the session on *Flavor Physics* at SUSY 2005.
- Organizer of *Celebrating Alberto Sirlin, a meeting of former students*, May 19, 2006, Torino.
- In the Organizing Committee of the fourth *Workshop on the CKM Unitarity Triangle*, Nagoya, Japan, 12-16 December 2006, about 200 participants.
- In the Program Committee of the fifth *Workshop on the CKM Unitarity Triangle*, held in Rome, September 2008, over 180 participants.
- September 2007 – April 2012, observer of the INFN Theoretical Physics Committee at the INFN Experimental High-Energy Physics Committee.
- Convener of the Working Group *Precision Investigations of QCD and Electroweak Interactions* in the ECFA-CERN Workshop on the LHeC physics potential (meetings in Divonne, September 2008 and 2009).
- Coordinator of the workshop *Indirect searches for New Physics at the time of LHC*, February 15 – March 26, 2010, at the Galileo Galilei Institute in Florence, organized with A. Buras, Y. Nir, P. Paradisi, C. Tarantino. Total funding amounted to 75000 EUR.
- In the local organizing committee of FPCP (Flavour Physics and CP violation) 2010, hosted in Torino, 25-29 May 2010. The conference has had about 100 participants and was sponsored by INFN and the local government.
- Since June 2009, coordinator of the research grant TO-23 *High precision studies and Monte Carlo simulation for the physics of fundamental interactions at recent and future colliders* funded by INFN.
- In the Program Committee of the of the seventh *Workshop on the CKM Unitarity Triangle*, held in Cincinnati, September 2012.
- Co-editor of the section on V_{ub} and V_{cb} of the *B-Factories Legacy Book*, promoted by the BaBar and Belle Collaborations, 2011-12.
- Referee for Nuclear Physics B, Physics Letters B, Journal of High Energy Physics, Physical Review D, Physical Review Letters, International Journal of Modern Physics A, European Physical Journal C, National Research Council of Canada, Research Promotion Foundation of Cyprus, Particle Data Group, Italian Ministry of University and Research, University of Rome La Sapienza.

Publications

- 1 *Relation between $\sin^2 \hat{\theta}_W(m_Z)$ and $\sin^2 \theta_{eff}^{lept}$* , with A. Sirlin, Phys. Rev. **D49**, R1160 (1994)

- 2 *Asymptotic $\mathcal{O}(\alpha\alpha_s)$ behavior of the electroweak gauge boson vacuum polarization functions for arbitrary quark masses*, with A. Djouadi, Phys. Rev. **D49**, 4705 (1994).
- 3 *Electroweak gauge boson self-energies: complete QCD corrections*, with A. Djouadi, Phys. Rev **D49**, 3499 (1994), E: *ibid.* **D53**, 4111 (1996).
- 4 *Polarized deep inelastic scattering at high energies and parity violating structure functions*, with M. Anselmino and J. Kalinowski, Z. Phys. **C64**, 267 (1994).
- 5 *Two-loop next-to-leading m_{top} corrections to the ρ parameter*, with G. Degrassi and S. Fanchiotti, CERN-TH.7180/94, NYU-Th-94/02/01, and hep-ph/9403250 (Feb. 1994).
- 6 *Evidence for Bosonic Electroweak Corrections in the Standard Model*, with A. Sirlin, Phys. Rev. Lett. **73**, 621 (1994).
- 7 *Leading electroweak correction to Higgs boson production at proton colliders*, with A. Djouadi, Phys. Rev. Lett. **73**, 2528 (1994).
- 8 *QCD corrections to Higgs boson self-energies and fermionic decay widths*, with A. Djouadi, Phys. Rev. **D51**, 218 (1995), E: *ibid.* **D53**, 4111 (1996).
- 9 *Two-loop electroweak top corrections: are they under control?*, with G. Degrassi, S. Fanchiotti, F. Feruglio, A. Vicini, published in *Reports of the Working Group on Precision Calculations for the Z-resonance*, CERN Yellow Report, CERN 95-03, March 1995, eds. D. Bardin, W. Hollik, and G. Passarino.
- 10 *Current Algebra approach to heavy top effects in $\delta\rho$* , with G. Degrassi and S. Fanchiotti, Int. J. Mod. Phys. **A10**, 1337 (1995).
- 11 *Two-loop corrections to the heavy top limit in the ρ parameter*, with G. Degrassi, S. Fanchiotti, F. Feruglio, A. Vicini, Phys. Lett. **B350**, 75 (1995).
- 12 *Two-loop corrections for electroweak processes*, with G. Degrassi, S. Fanchiotti, F. Feruglio, A. Vicini, hep-ph/9507286, published in *Proceedings of the XXIX Rencontre de Moriond*, Ed. Frontiers, Paris, March 1995, p. 77.
- 13 *Precision tests of the Standard Model: evidence for radiative corrections and higher order effects*, NYU Ph.D. dissertation, NYU-TH-95/05/01 and hep-ph/9505283, May 1995.
- 14 *Renormalon contributions to $\Delta\rho$* , with A. Sirlin, Phys. Lett. **B355**, 295 (1995).
- 15 *Two-loop heavy top effects on the $M_Z - M_W$ interdependence*, with G. Degrassi and A. Vicini, Phys. Lett. **B383**, 219 (1996).
- 16 *Polarization and the Weak Mixing Angle in High Energy $e^\pm e^-$ collisions*, with F. Cuypers, Phys. Lett. **B388**, 211 (1996).
- 17 *New measurements of proton polarized structure functions in charged current processes at HERA*, with M. Anselmino and J. Kalinowski, Phys. Rev. **D55**, 5841 (1997).

- 18 *Precision tests of the Standard Model and higher order effects: the example of the effective mixing angle*, lecture given at the XXXVI Cracow School of Theoretical Physics, June 1996, Acta Phys. Polon. **B27**, 3671 (1996).
- 19 *Two-loop heavy top effects on precision observables*, invited talk at the Third International Symposium on Radiative Corrections, Cracow, Poland, 1-5 August 1996, hep-ph/9609432, Acta Phys. Polon. **B28**, 823 (1997).
- 20 *Spin asymmetries from charged current events*, with M. Anselmino, J. Blümlein, J. Kalinowski, N. Kochelev, M. Maul, A. Schäfer, T. Yamanishi, in the Proceedings of the *Workshop on future physics at HERA 1995/96*, Report DESY-96-235, Eds. G. Ingelman, A. de Roeck and R. Klanner.
- 21 *Precision measurement of $\sin^2 \theta_w$ and the beam polarization at NLC*, with F. Cuypers, contribution to the Proceedings of the *Workshop on new directions for High Energy Physics*, Snowmass, Colorado, PSI-PR-96-027, September 1996.
- 22 *Precise calculation of M_W , $\sin^2 \hat{\theta}_W(m_Z)$, and $\sin^2 \theta_{eff}^{lept}$* , with G. Degrossi and A. Sirlin, Phys. Lett. **B394**, 188 (1997).
- 23 *New polarized structure functions in charged current processes at HERA*, with M. Anselmino and J. Kalinowski, in the Proceedings of *SPIN '96*, Amsterdam, September 1996, World Scientific 1997, p.184.
- 24 *Supersymmetric contributions to electroweak precision observables: QCD corrections*, with A. Djouadi, S. Heinemeyer, W. Hollik, C. Jünger, and G. Weiglein, Phys. Rev. Lett. **78**, 3626 (1997).
- 25 *Two-loop heavy top effects on precision observables and the Higgs mass*, hep-ph/9703264, published in the Proceedings of the Workshop on "The Higgs puzzle - What can we learn from LEP II, LHC, NLC, and FMC?", Ringberg Castle, Germany, December 1996, pp.11-21, ed. B. Kniehl, World Scientific, Singapore, 1997.
- 26 *The role of M_W in precision studies of the Standard Model*, with G. Degrossi, M. Passera, and A. Sirlin, hep-ph/9708311, Phys. Lett. **B418**, 209-213 (1998).
- 27 *Leading QCD corrections to scalar quark contributions to electroweak precision observables*, with A. Djouadi, S. Heinemeyer, W. Hollik, C. Jünger, and G. Weiglein, hep-ph/9710438, Phys. Rev. **D57**, 4179-4196 (1998).
- 28 *Next-to-Leading QCD Corrections to $B \rightarrow X_s \gamma$: Standard Model and Two-Higgs Doublet Model*, with M. Ciuchini, G. Degrossi, and G. F. Giudice, hep-ph/9710335, Nucl. Phys. **B527**, 21-43 (1998).
- 29 *Two-loop electroweak heavy-fermion corrections to Higgs-boson production and decay*, with A. Djouadi and B. Kniehl, hep-ph/9712330, Nucl. Phys. **B523**, 17-39 (1998).
- 30 *Next-to-Leading QCD Corrections to $B \rightarrow X_s \gamma$ in Supersymmetry*, with M. Ciuchini, G. Degrossi, and G. F. Giudice, hep-ph/9806308, Nucl. Phys. **B534** (1998) 3-20.

- 31 *Electroweak effects in the $B^0 - \bar{B}^0$ mixing*, with A. Kwiatkowski and N. Pott, hep-ph/9810400, Nucl. Phys. **B544** (1999) 532-556.
- 32 *Fermion mixing renormalization and gauge invariance*, with P.A. Grassi and F. Madricardo, hep-ph/9811470, Phys. Lett. **B454** (1999) 98-104.
- 33 *Precision Tests of the Standard Model: higher order corrections and the Higgs mass*, talk presented at the IV Int. Symposium on Radiative Corrections (RADCOR 98), Barcelona, September 1998; in the Proceedings, ed. J.Sola; hep-ph/9812332.
- 34 *Test of the Heavy Top Expansion in the Evaluation of M_W and $\sin^2 \theta_{eff}^{lept}$* , with A. Sirlin and G. Weiglein, hep-ph/9903249, JHEP **04** (1999) 025.
- 35 *Two-loop heavy top corrections to the Z^0 boson partial widths*, with G. Degrassi, hep-ph/9905472, Nucl. Phys. **B567** (2000) 3.
- 36 *The Nielsen Identities of the SM and the definition of mass*, with P.A. Grassi, hep-ph/9907254, Phys. Rev. **D62**, 076002 (2000).
- 37 *Next-to-leading QCD corrections to $B \rightarrow X_s \gamma$* , talk given at QCD99, Montpellier, July 1999, in the proceedings, Nucl. Phys. Proc. Suppl. **86** 499-502, 2000.
- 38 *Electroweak Penguin Contributions to Non-Leptonic $\Delta F = 1$ Decays at NNLO* with A.J. Buras and U. Haisch, hep-ph/9911250, Nucl. Phys. **B570** (2000) 117.
- 39 *Universal unitarity triangle and physics beyond the Standard Model*, with A.J. Buras, M. Gorbahn, S. Jäger and L. Silvestrini, hep-ph/0007085, Phys. Lett. B **500** (2001) 161.
- 40 *Electroweak effects in radiative B decays*, with U. Haisch, hep-ph/0007259, JHEP **09** (2000) 001.
- 41 *ϵ'/ϵ and rare K and B decays in the MSSM*, with A. J. Buras, M. Gorbahn, S. Jäger and L. Silvestrini, hep-ph/0007313, Nucl. Phys. **B592** (2000) 55-91.
- 42 *$B \rightarrow X_s \gamma$ in supersymmetry: large contributions beyond the leading order*, with G. Degrassi and G.F. Giudice, hep-ph/0009337, JHEP**0012** (2000) 009.
- 43 *Radiative B decays in the Standard Model and beyond*, talk at the Symposium in honor of Prof. A. Sirlin's 70th birthday, New York, October 2000, CERN-TH-2001-029, J. Phys. G **29** (2003) 65.
- 44 *The unitarity triangle and new physics*, in *Present and future CP measurements*, edited by T. Hurth, C.S. Kim, C. Shepherd-Themistocleous, F. Wilson, J. Phys. G **G27** (2001) 1277 [hep-ph/0102159] (contribution of Working Group 4 at the UK Phenomenology Workshop on Heavy Flavor and CP Violation, Durham, England, 17-22 Sep 2000).
- 45 *Radiative B Decays: electroweak effects and new physics beyond leading order*, talk at the UK Phenomenology Workshop on Heavy Flavor and CP Violation, Durham, England, 17-22 Sep 2000, J. Phys. **G27** (2001) (2001) 1199-1206.
- 46 *Quark mass effects in $B \rightarrow X_s \gamma$* , with M. Misiak, CERN-TH-2001-089, hep-ph/0104034, Nucl. Phys. **B611** (2001) 338-366.

- 47 *Physics at the front-end of a neutrino factory: A quantitative appraisal*, with M.L. Mangano *et al.*, CERN-TH-2001-131, hep-ph/0105155.
- 48 *Indication for light sneutrinos and gauginos from precision electroweak data*, with G. Altarelli, F. Caravaglios, G.F. Giudice, G. Ridolfi, CERN-TH-2001-145 hep-ph/0106029, JHEP **0106** (2001) 018.
- 49 *Radiative B decays and new physics*, talk at XXXVI Rencontres de Moriond, *Electroweak Interactions and Unified Theories*, Les Arcs, March 11-17 2001, to appear in the proceedings.
- 50 *Complete electroweak matching for radiative B decays*, with U. Haisch, CERN-TH-2001-213, hep-ph/0109058, JHEP **0110** (2001) 020.
- 51 *Old and new physics interpretations of the NuTeV anomaly*, with S. Davidson, S. Forte, N. Rius, A. Strumia, CERN-TH-2001-366, hep-ph/0112302, JHEP **0202** (2002) 037.
- 52 *A new model-independent way of extracting $|V_{ub}/V_{cb}|$* , with U. Aglietti and M. Ciuchini, CERN-TH/2002-069, hep-ph/0204140, Nucl. Phys. **B637** (2002) 427.
- 53 *Heavy quark parameters and $|V_{cb}|$ from spectral moments in semileptonic B decays*, with M. Battaglia, M. Calvi, A. Oyanguren, P. Roudeau, L. Salmi, J. Salt, A. Stocchi, N. Uraltsev, CERN-TH/2002-290, hep-ph/0210319, Phys. Lett. **B556** (2003) 41-49.
- 54 *Precision Electroweak Measurements Circa 2002*, talk at the ICHEP Conference, Amsterdam 24-31 July 2002, CERN-TH/2002-311, hep-ph/0211009.
- 55 *The CKM Matrix and the Unitarity Triangle*, edited by M. Battaglia, A.J. Buras, P. Gambino, A. Stocchi, with about 100 contributing authors, 330 pages. It represents the report of the first workshop on the CKM Unitarity Triangle, CERN 13-16 February 2002, CERN Yellow Report 2003-002, hep-ph/0304132.
- 56 *Anomalous Dimension Matrix for Radiative and Rare Semileptonic B Decays up to Three Loops*, with Martin Gorbahn and Ulrich Haisch, CERN-TH/2003-120, hep-ph/0306079, Nucl. Phys. **B673** (2003) 238.
- 57 *The Top Priority: Electroweak Precision Physics from Low to High Energy*, plenary talk at 21st Int. Symposium on Lepton and Photon Interactions at High Energies (LP 03), Fermilab, Aug 2003, hep-ph/0311257, in the Proceedings, Int. J. Mod. Phys. A **19** (2004) 808.
- 58 *Complete NNLO QCD Analysis of $B \rightarrow X_s l^+ l^-$ and Higher Order Electroweak Effects*, with Christoph Bobeth, Martin Gorbahn, and Ulrich Haisch, hep-ph/0312090, JHEP **0404** (2004) 071.
- 59 *Moments of semileptonic B decay distributions in the $1/m_b$ expansion*, with N. Uraltsev, hep-ph/0401063, Eur. Phys. J. C **34** (2004) 181.
- 60 *Status of the CKM matrix*, invited review talk at *DAΦNE 2004: Physics at meson factories*, Frascati, June 7-11, 2004. Published in the proceedings, Frascati Physics Series, vol. 36, 2004, eds. F. Anulli *et al.*

- 61 *Determining the sign of the $b \rightarrow s\gamma$ amplitude*, with U. Haisch and M. Misiak, hep-ph/0410155, Phys. Rev. Lett. **94** (2005) 061803.
- 62 *Perturbative corrections to semileptonic b decay distributions*, with V. Aquila, G. Ridolfi and N. Uraltsev, hep-ph/0503083, Nucl. Phys. **B719** (2005) 77.
- 63 *Hadronic mass and q^2 moments of charmless semileptonic B decay distributions*, with G. Ossola and N. Uraltsev, hep-ph/0505091, JHEP **0905** (2005) 010.
- 64 *Gluino Decays in Split Supersymmetry*, with G.F. Giudice and P. Slavich, hep-ph/0506214, Nucl. Phys. B **726** (2005) 35.
- 65 *Semileptonic and radiative B decays circa 2005*, review talk at *Beauty 2005*, Assisi, June 20-24 giugno 2005, hep-ph/0510085, Nucl. Phys. B - Proceedings Suppl. 156 (2006) 169.
- 66 *QCD Corrections to Radiative B Decays in the MSSM with Minimal Flavor Violation*, with G. Degrassi e P. Slavich, hep-ph/0601135, Phys. Lett. B **635** (2006) 335-342.
- 67 *Status of the SUSY Les Houches Accord II project*, with B.C. Allanach and other 27 authors, in the report of the *Beyond the Standard Model Working Group of Physics at TeV Colliders 2005 Workshop*, Les Houches, France, may 2005, hep-ph/0602198.
- 68 *Magnetic dipole operator contributions to the photon energy spectrum in $B \rightarrow X_s\gamma$ at $O(\alpha_s^2)$* , with H. M. Asatrian, T. Ewerth, A. Ferroglia, and C. Greub, hep-ph/0607316, Nucl. Phys. B **762** (2007) 212-228.
- 69 *Theory precision for radiative B decays in SM and MSSM*, invited talk at the First Workshop on Theory, Phenomenology and Experiments in heavy flavour physics, May 29-31 2006, Capri, Nucl. Phys. Proc. Suppl. **163** (2007) 127.
- 70 *The first estimate of $BR(B \rightarrow X_s\gamma)$ at $O(\alpha_s^2)$* , with M. Misiak and other fourteen authors, hep-ph/0609232, Phys. Rev. Lett. **98** (2007) 022002.
- 71 *Running-coupling effects in the triple-differential charmless semileptonic decay width*, with E. Gardi and G. Ridolfi, hep-ph/0610140, JHEP **12** (2006) 036.
- 72 *The Branching Fraction of $BR(B \rightarrow X_s\gamma)$ at NNLO*, to appear in the proceedings of the IV Workshop on the CKM Unitarity Triangle, Nagoya, 12-16 december 2006.
- 73 *Inclusive semileptonic B decays and the determination of $|V_{ub}|$* , with P. Giordano, G. Ossola and N. Uraltsev, arXiv:0707.2493 [hep-ph], JHEP **10** (2007) 058.
- 74 *SuperB: A High-Luminosity Asymmetric e^+e^- Super Flavor Factory. Conceptual Design Report*, with the SuperB Collaboration, M. Bona *et al.*, arXiv:0709.0451 [hep-ex].
- 75 *SusyBSG: a fortran code for $BR[B \rightarrow X_s\gamma]$ in the MSSM with Minimal Flavor Violation*, with G. Degrassi and P. Slavich, arXiv:0712.3265 [hep-ph], Comput. Phys. Commun. **179** (2008) 759-771.

- 76 *SUSY Les Houches Accord 2*, with B. C. Allanach *et al.*, arXiv:0801.0045 [hep-ph], Comput. Phys. Commun. **180** (2009) 8.
- 77 *B, D and K decays*, with G. Buchalla *et al.*, Report of Working Group 2 of the CERN Workshop “Flavour in the era of the LHC”, Geneva, Switzerland, November 2005 – March 2007; arXiv:0801.1833 [hep-ph]; Eur. Phys. J. C **57** (2008) 309-492.
- 78 *Normalizing inclusive rare B decays*, with P. Giordano, arXiv:0805.0271 [hep-ph], Phys. Lett. **B669** (2008) 69-73.
- 79 *The inclusive determination of $|V_{ub}|$* , invited talk at the Second Workshop on Theory, Phenomenology and Experiments in heavy flavour physics, 16-18 giugno 2008, Capri, published in the proceedings, Nucl. Phys. B (Proc. Suppl.) **185** (2008) 28-32.
- 80 *Proceedings of SuperB Workshop VI: New Physics at the Super Flavor Factory*, with D. G. Hitlin *et al.*, arXiv:0810.1312 [hep-ph].
- 81 *Flavor Physics in the Quark Sector*, con Mario Antonelli *et al.*, report of the Working Groups of the CKM Workshop 2008, Rome 9-13th Sep. 2008, 340 pages, accepted for publication in Phys. Repts., arXiv:0907.5386 [hep-ph].
- 82 *Power suppressed effects in $B \rightarrow X_s \gamma$ at $O(\alpha_s)$* , with T. Ewerth and S. Nandi, arXiv:0911.2175 [hep-ph], Nucl. Phys. **B830** (2010) 278-290.
- 83 *Lepton energy moments in semileptonic charm decays*, with J.F. Kamenik, arXiv:1004.0114 [hep-ph], Nucl. Phys. **B840** (2010) 424-437.
- 84 *$B \rightarrow D^* \ell \nu$ at zero recoil revisited*, with T. Mannel and N. Uraltsev, arXiv:1004.2859 [hep-ph], Phys. Rev. D **81**, 113002 (2010).
- 85 *Quark e sapori: il mondo del flavor e i suoi misteri*, in *Asimmetrie*, INFN magazine, year 6 n. **11** (2011) 20-24.
- 86 *Theoretical and Experimental Status of Inclusive Semileptonic Decays and Fits for $|V_{cb}|$* , with Christoph Schwanda, proceedings of the 6th CKM Workshop, University of Warwick, UK, 6-10 september 2010, arXiv:1102.0210 [hep-ex].
- 87 *B semileptonic moments at NNLO*, arXiv:1107.3100 [hep-ph], JHEP **9** (2011) 055.
- 88 *$B \rightarrow D^*$ zero-recoil formfactor and the heavy quark expansion in QCD: a systematic study* with T. Mannel and N. Uraltsev, arXiv:1206.2296 [hep-ph], JHEP **10** (2012) 169.
- 89 *A Large Hadron Electron Collider at CERN: Report on the Physics and Design Concepts for Machine and Detector* with LHeC Study Group, arXiv:1206.2913v1 [physics.acc-ph], J. Phys. G **39** (2012) 075001.
- 90 *A Large Hadron Electron Collider at CERN* with LHeC Study Group, arXiv:1211.4831v1 [hep-ex], submitted to the Cracow Symposium of the Update of the European Strategy for Particle Physics, Cracow (Poland) September 2012.
- 91 *On the Relation of the LHeC and the LHC*, with the LHeC Study Group Collaboration, arXiv:1211.5102 [hep-ex].

- 92 *Kinetic operator effects in $B \rightarrow X_c l \nu$ at $O(\alpha_s)$* , with Andrea Alberti, Thorsten Ewerth, Soumitra Nandi, arXiv:1212.5082 [hep-ph], Nucl. Phys. **B870** (2013) 16-29.
- 93 *Inclusive semileptonic fits, heavy quark masses, and V_{cb}* , with Christoph Schwanda, arXiv:1307.4551 [hep-ph], Phys. Rev. **D 89** (2014) 014022.
- 94 *Perturbative corrections to power suppressed effects in semileptonic B decays* with Andrea Alberti and Soumitra Nandi, arXiv:1311.7381 [hep-ph], JHEP **01** (2014) 147.

Invited seminars

1. *Precision Tests of the Standard Model: Evidence for Bosonic Corrections and higher order effects*
 - University of Valencia, Spain, December 1994
 - University of Torino, Italy, December 1994
2. *Tests of the Standard Model and new precision goals*
University of Pennsylvania, Philadelphia, April 1995
3. *Precision tests of the Standard Model and higher order effects*,
 - Paul Scherrer Institut, Villigen, Switzerland, January 1996
 - Technische Universität München, June 1996
4. *Status of theoretical errors in precision tests of the Standard Model*,
 - Ludwig Maximilian Universität, München, February 1997
 - Max Planck Institut für Physik, München, March 1997
 - New York University, March 1997
5. *Precision tests of the Standard Model and the Higgs mass*,
 - Fermilab, August 1997
 - DESY Hamburg, November 1997
6. *Next-to-Leading Order QCD corrections to $B \rightarrow X_s \gamma$ in the Standard Model and beyond*,
 - Karlsruhe University, June 1998
 - Scuola Normale Superiore, Pisa, March 2000
 - University of Torino, November 2000
7. *The Nielsen identities of the SM and the definition of masses and mixing parameters*,
 - Brookhaven, September 1999
 - New York University, September 1999
8. *Precision electroweak tests and supersymmetry*
 - Theory Division, CERN, June 2001
 - Université de Lyon, November 2001

9. *Radiative B Decays: a theory status report*
 - Universität Freiburg, December 2001
10. *A tale of two unwelcome anomalies*
 - LAPP, Annecy, March 2002
 - IPPP, Durham, April 2002
 - MPI, Munich, May 2002
11. *Pondering the NuTeV anomaly*
 - CERN, June 2002
 - CPPM, Marseille, September 2002
 - UC Berkeley, February 2003
12. *Precision measurements and indirect searches for new physics*
 - Université Neuchâtel, January 2003
 - ISN, Grenoble, March 2003
 - RWTH, Aachen, January 2004
13. *The SM fit and all its troubles: New Physics around the corner?*
 - University of Bern, June 2003
14. *Rare inclusive B decays and the search for new physics*
 - University of Milan, March 2004
 - LPTH, Orsay, April 2004
15. *Moments of semileptonic B decays and the extraction of $|V_{cb}|$*
 - CERN EP, June 2004
16. *Status of the CKM matrix*
 - University of Rome II, January 2005
 - University of Florence, February 2005
 - University of Naples, June 2005
17. *Precision measurements in B physics*
 - University of Bern, May 2005
18. *Recent developments in radiative B decays*
 - Scuola Normale Superiore, Pisa, March 2007
 - University of Rome–La Sapienza, March 2007
 - EPFL, Lausanne, January 2008
19. *The inclusive determination of $|V_{ub}|$*
 - University of Padua, March 2008
 - LPTHE, Université Marie et Pierre Curie, Paris, March 2008
20. *Semileptonic B decays (and what we can learn from them)*

- University of Milan, March 2010
- University of Karlsruhe, July 2010
- Scuola Normale Superiore, Pisa, March 2011
- University of Roma Tre, Roma, June 2011
- University of Siegen, June 2011
- Excellence Cluster Universe, TUM, Munich, July 2011
- University of Warsaw, October 2011
- Citytech, Brooklyn, NY, September 2012
- Université Lyon 1, December 2012
- Università di Padova, December 2012

Invited talks at conferences, workshops, and schools

- *Higher order electroweak corrections* at WIN 95, XV Workshop on Weak Interactions and Neutrinos, Talloires, France, September 4-8 1995.
- *Radiative Corrections in the Standard Model: status and perspectives*, PADLEP 96, Meeting on LEP physics, Padova, Italy, April 9-11, 1996.
- *Precision tests of the Standard Model and higher order corrections: the example of the effective sine*, XXXVI Cracow School of Theoretical Physics, Zakopane, Poland, June 1-11, 1996.
- *Two-loop heavy top effects on precision observables*, Third International Symposium on Radiative Corrections, CRAD 96, Cracow, Poland, August 1-5, 1996.
- *Precision tests with polarization at linear colliders*, Workshop on Lepton Polarization at High Energy Colliders, Lecce, Italy, September 26-28, 1996.
- *Two-loop heavy top effects on precision observables and the Higgs mass*, Ringberg Workshop on "The Higgs puzzle - What can we learn from LEP II, LHC, NLC, and FMC?", Ringberg Castle, Germany, December 8-13, 1996.
- *Polarization with charged and neutral currents*, Ringberg Workshop on "High energy polarization phenomena", Ringberg Castle, Germany, February 24-28, 1997.
- *Precision tests and the Higgs mass* and participation to the Round Table on Higgs searches, NALEP 98, Meeting on LEP physics, Napoli, Italy, April 15-17, 1998
- *QCD corrections to $B \rightarrow X_s \gamma$ in the Standard Model and beyond*, RADCOR 98, IVth Int. Symposium on Radiative Corrections, Barcelona, September 8-12, 1998.
- *Precision tests of the Standard Model: higher order corrections and the Higgs mass*, RADCOR 98, IVth Int. Symposium on Radiative Corrections, Barcelona, September 8-12, 1998.
- *QCD corrections to $B \rightarrow X_s \gamma$ in supersymmetry*, DESY Theory Workshop on "Directions beyond the Standard Model" Hamburg, Sept. 30 - Oct. 2, 1998.

- *Next-to-leading order QCD corrections to $B \rightarrow X_s \gamma$* , QCD99, Montpellier, July 7-13, 1999.
- *Prospects for high precision determination of $\sin^2 \theta_W$ at a neutrino factory*, Workshop on “Physics at the front end of a muon collider”, CERN, Jan. 17-19, 2000
- *$B \rightarrow X_s \gamma$ in the SM and beyond and Unitarity triangle and new physics*, UK Phenomenology Workshop on Heavy Flavour and CP Violation, Sept. 17-22, 2000, Durham.
- *$B \rightarrow X_s \gamma$ in the SM and beyond*, Symposium in honor of Professor Alberto Sirlin’s 70th Birthday, NYU, New York, October 27-28, 2000.
- *Radiative decays and new physics*, XXXVI Rencontres de Moriond, Electroweak Interactions and Unified Theories Les Arcs, March 11-17 2001.
- *The SM fit and all its troubles and Precision measurements and new physics*, IFAE 2002, Italian meeting of High Energy Physics, Parma, April 3-5 2002.
- *Models with Minimal Flavor Violation* Annual meeting of the Euro-GDR, Durham, April 18-20 2002.
- *Precision electroweak measurements: a theorist point of view*, International Conference on High Energy Physics, ICHEP 2002, Amsterdam, July 25-31 2002.
- *What do we know about the Higgs boson?*, Special Workshop of Marie Curie Fellows on Research and Training in Physics and Technology, CERN, Geneva, 3-4 October 2002.
- *The SM fit and all its troubles: New Physics around the corner?* Workshop on Experimental anomalies to the Standard Model, Roma Tre University, Rome, December 5, 2002.
- *Summary of the session on Electroweak Physics*, Incontri di Fisica delle Alte Energie, IFAE 2003, Lecce, April 23-26, 2003.
- *Electroweak precision physics from low to high energy*, plenary review talk, XXI International Symposium on Lepton Photon Interactions at High Energies, Fermilab, 11-16 agosto 2003.
- *Rare B decays: status and challenges*, Incontri di Fisica delle Alte Energie, IFAE 2004, Torino, April 14-16, 2004.
- *Moments of the semileptonic distributions*, Annual meeting of the italian Babar collaboration, Genova, April 22-23, 2004.
- *The Standard Model and the Higgs boson*, lecture at Annual School on Detectors, INFN, Torino, April 26, 2004.
- *Status of the CKM matrix*, review talk, DAΦNE 2004: Physics at meson factories, 7-11 June 2004, Laboratori Nazionali di Frascati.
- *Moments of inclusive semileptonic $b \rightarrow u$ decays*, Babar workshop on V_{ub}, V_{cb} measurements, 10-11 December 2004, SLAC.

- *Tools for the computation of inclusive radiative and rare weak decays*, LHC/Flavour Physics workshop, 1-2 February 2005, CERN and Les Houches, 16 May 2005.
- *Semileptonic and radiative B decays*, review talk at Beauty 2005, Assisi, 20-24 giugno 2005.
- *What we can learn from semileptonic moments*, Joint workshop on V_{ub} & V_{cb} at the B factories, University of Melbourne, 28-30 January 2006.
- *NLO QCD corrections to $b \rightarrow s\gamma$ in the MSSM*, Workshop *Flavour in the era of the LHC*, CERN, 6-8 February 2006.
- *Theoretical B Physics in Turin*, INFN Torino annual meeting, 27 February 2006.
- *Inclusive radiative B decays: an update*, IFAE 2006, Pavia, 19-21 April 2006.
- *Precision Physics in the LHC era*, Meeting of Alberto Sirlin's students, May 19 2006, Torino.
- *Theoretical precision for radiative B decays in SM and MSSM*, First workshop on Heavy Flavour Physics, Capri, May 28-31 2006.
- $|V_{xb}|$ from semileptonic B decays, invited review talk at BEACH 2006, July 3-8 2006, Lancaster, UK.
- *The branching fraction of $B \rightarrow X_s\gamma$ at NNLO*, CKM 2006 Workshop, Nagoya, December 11-16 2006.
- *The $B \rightarrow X_s\gamma$ Branching Fraction at NNLO*, XLII *Rencontres de Moriond*, La Thuile, March 10-17 2007.
- *Electroweak precision tests before the LHC*, HEP 2007, Manchester, UK, July 19-25 2007.
- *Inclusive determination of $|V_{ub}|$ in the kinetic scheme*, Joint Workshop on $|V_{ub}|$ & $|V_{cb}|$ at the B-Factories, Heidelberg, December 14-16, 2007.
- *Inclusive determination of $|V_{ub}|$: status and prospects at SuperB*, SuperB Workshop VI: New Physics at the Super Flavour Factory SuperB, Valencia, January 7-15, 2008 (by phone).
- *The inclusive determination of $|V_{ub}|$* , Annual meeting of Babar-Italy, Torino, April 10-11, 2008.
- *Status of the CKM matrix*, invited review talk at FPCP 2008, May 6-10 2008, Taipei, Taiwan.
- *The inclusive determination of $|V_{ub}|$* , invited talk at Second Workshop on Theory, Phenomenology and Experiments in Heavy Flavour Physics, June 16-18 2008, Capri.
- *Status and prospects of inclusive $B \rightarrow X_u l \nu$ theory*, invited review talk at the fifth CKM workshop, 9-13 September 2008, Rome.

- *Status of the CKM matrix*, invited review talk at *Les Rencontres de Physique de la Vallée d'Aoste*, 1-7 March 2009, La Thuile, Italy.
- *Status and prospects of inclusive $B \rightarrow X_u l \nu$ theory*, invited review talk at *VI meeting on B physics*, Ferrara, 19-20 march 2009.
- *Inclusive semileptonic B decays*, Ringberg Workshop on New Physics, Flavors and Jets from 26 April to 1 May 2009, Ringberg Castle, Bavaria, Germany.
- *Semileptonic D decays and Weak Annihilation*, Third Workshop on Theory, Phenomenology and Experiments in Heavy Flavour Physics, 5-7 July 2010, Capri.
- *Theoretical Status of Inclusive $|V_{cb}|$* , Sixth CKM Workshop, 6-10 September 2010, Warwick University, England.
- *Semileptonic B decays*, Andrzejfest, symposium on Flavour Physics, 7-9 October 2010, Berg, Germany.
- *Electroweak Physics at LHeC, and Summary of the Precision QCD and Electroweak Studies*, Third Workshop on the LHeC, 11-12 November 2010, Chavannes-de-Bogis, Ginevra.
- *Developments in Semileptonic B decays*, Workshop *Portorož 2011*, The Role of Heavy Fermions in Fundamental Physics, April 11-14, 2011, Portorož, Slovenia.
- *$B \rightarrow X_s \gamma$: normalization and parametric uncertainties*, SuperB Physics Meeting, Laboratori Nazionali di Frascati, December 11-12, 2011.
- *Semileptonic B decays and the CKM matrix*, WHEEP-XII, Mahabaleshwar, Maharashtra, India, January 8-15, 2012.
- *The inclusive determination of $|V_{ub}|$* , IVth SuperB Collaboration Meeting, La Biodola, Isola d'Elba, May 30 - June 4, 2012.
- *Form factors for $|V_{cb}|$ in the heavy quark expansion*, CKM 2012, Cincinnati, USA, september 29 - october 2, 2012.
- *Recent developments in semileptonic decays*, Portorož 2013, Probing the Standard Model and New Physics at Low and High Energies, April 15-18 2013, Portorož, Slovenia.
- *Misura di γ dai decadimenti $B \rightarrow DK$ ed implicazioni per i fit CKM*, con A. Carbone, VI Workshop di Fisica *pp* a LHC, May 8-10 2013, Genua, Italy.
- *Semileptonic B decays, quark masses, and V_{cb}* , Matter to the deepest 2013, 1-6 settembre 2013, Ustron, Polonia.