

Publications and Talks

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Recent Papers Submitted to Refereed Journals

- [1] *EFT for Soft Drop Double Differential Cross Section*, A. Pathak, I.W. Stewart, V. Vaidya and L. Zoppi, arXiv:2012.15568.
- [2] *Boosted Top Quarks in the Peak Region with N^3LL Resummation*, B. Bachu, A.H. Hoang, V. Mateu, A. Pathak and I.W. Stewart, arXiv:2012.12304.
- [3] *Precision Global Determination of the $B \rightarrow X_s \gamma$ Decay Rate*, SIMBA collaboration, F.U. Bernlochner, H. Lacker, Z. Ligeti, I.W. Stewart, F.J. Tackmann and K. Tackmann, arXiv:2007.04320.
- [4] *Drell-Yan q_T Resummation of Fiducial Power Corrections at N^3LL* , M.A. Ebert, J.K. Michel, I.W. Stewart and F.J. Tackmann, arXiv:2006.11382.

Refereed Publications

- [1] *One-loop Matching for Spin-Dependent Quasi-TMDs*, M.A. Ebert, S.T. Schindler, I.W. Stewart and Y. Zhao, JHEP **09** (2020) 099, [arXiv:2004.14831].
- [2] *The Soft Quark Sudakov*, I. Moulton, I.W. Stewart, G. Vita and H.X. Zhu, JHEP **05** (2020) 089, [arXiv:1910.14038].
- [3] *Renormalization and Matching for the Collins-Soper Kernel from Lattice QCD*, M.A. Ebert, I.W. Stewart and Y. Zhao, JHEP **03** (2020) 099, [arXiv:1910.08569].
- [4] *Collinear Drop*, Y.T. Chien and I.W. Stewart, JHEP **06** (2020) 064, [arXiv:1907.11107].
- [5] *Nonperturbative Corrections to Soft Drop Jet Mass*, A.H. Hoang, S. Mantry, A. Pathak and I.W. Stewart, JHEP **12** (2019) 002, [arXiv:1906.11843].
- [6] *Subleading Power Factorization with Radiative Functions*, I. Moulton, I.W. Stewart and G. Vita, JHEP **11** (2019) 153, [arXiv:1905.07411].
- [7] *Towards Quasi-Transverse Momentum Dependent PDFs Computable on the Lattice*, M.A. Ebert, I.W. Stewart and Y. Zhao, JHEP **09** (2019) 037, [arXiv:1901.03685].
- [8] *Subleading power rapidity divergences and power corrections for q_T* , M.A. Ebert, I. Moulton, I.W. Stewart, F.J. Tackmann, G. Vita and H.X. Zhu, JHEP **04** (2019) 123, [arXiv:1812.08189].
- [9] *Helicity Methods for High Multiplicity Subleading Soft and Collinear Limits*, A. Bhattacharya, I. Moulton, I.W. Stewart and G. Vita, JHEP **05** (2019) 192, [arXiv:1812.06950].

- [10] *Determining the Nonperturbative Collins-Soper Kernel From Lattice QCD*, M.A. Ebert, I.W. Stewart and Y. Zhao, Phys. Rev. **D99** (2019) 034505, [arXiv:1811.00026].
- [11] *Precision Photon Spectra for Wino Annihilation*, M. Baumgart, T. Cohen, E. Moulin, I. Moulton, L. Rinchuso, N.L. Rodd, T.R. Slatyer, I.W. Stewart and V. Vaidya, JHEP **01** (2019) 036, [arXiv:1808.08956].
- [12] *Extracting a Short Distance Top Mass with Light Grooming*, A.H. Hoang, S. Mantry, A. Pathak and I.W. Stewart, Phys. Rev. **D100** (2019) 074021, [arXiv:1708.02586].
- [13] *Hunting for Heavy Winos in the Galactic Center*, L. Rinchuso, N.L. Rodd, I. Moulton, E. Moulin, M. Baumgart, T. Cohen, T.R. Slatyer, I.W. Stewart and V. Vaidya, Phys. Rev. **D98** (2018) 123014, [arXiv:1808.04388].
- [14] *Power Corrections for N -Jettiness Subtractions at $\mathcal{O}(\alpha_s)$* , M.A. Ebert, I. Moulton, I.W. Stewart, F.J. Tackmann, G. Vita and H.X. Zhu, JHEP **12** (2018) 084, [arXiv:1807.10764].
- [15] *Manifestly Soft Gauge Invariant Formulation of $vNRQCD$* , I.Z. Rothstein, P. Shrivastava and I.W. Stewart, Nucl. Phys. **B939** (2019) 405, [arXiv:1806.07398].
- [16] *Precise QCD Description of the Higgs Boson Transverse Momentum Spectrum*, X. Chen, T. Gehrmann, E.W.N. Glover, A. Huss, Y. Li, D. Neill, M. Schulze, I.W. Stewart and H.X. Zhu, Phys. Lett. **B788** (2019) 425, [arXiv:1805.00736].
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- [20] *A Subleading Power Operator Basis for the Scalar Quark Current*, C.H. Chang, I.W. Stewart and G. Vita, JHEP **04** (2018) 041, [arXiv:1712.04343].
- [21] *N -jettiness subtractions for $gg \rightarrow H$ at subleading power*, I. Moulton, L. Rothen, I.W. Stewart, F.J. Tackmann and H.X. Zhu, Phys. Rev. **D97** (2018) 014013, [arXiv:1710.03227].
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- [23] *Matching the quasiparton distribution in a momentum subtraction scheme*, I.W. Stewart and Y. Zhao, Phys. Rev. **D97** (2018) 054512, [arXiv:1709.04933].
- [24] *Soft Functions for Generic Jet Algorithms and Observables at Hadron Colliders*, D. Bertolini, D. Kolodrubetz, D. Neill, P. Pietrulewicz, I.W. Stewart, F.J. Tackmann and W.J. Waalewijn, JHEP **07** (2017) 099, [arXiv:1704.08262].

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- [33] *An Effective Field Theory for Forward Scattering and Factorization Violation*, I.Z. Rothstein and I.W. Stewart, JHEP **08** (2016) 025, [arXiv:1601.04695].
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- [121] *Model independent results for $B \rightarrow D_1(2420)\ell\bar{\nu}_\ell$ and $B \rightarrow D_2^*(2460)\ell\bar{\nu}_\ell$ at order $\Lambda_{\text{QCD}}/m_{c,b}$* , A.K. Leibovich, Z. Ligeti, I.W. Stewart and M.B. Wise, Phys. Rev. Lett. **78** (1997) 3995, [arXiv:hep-ph/9703213].
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- [123] *Order $\alpha_s^2\beta_0$ correction to the charged lepton spectrum in $b \rightarrow c\ell\bar{\nu}_\ell$ decays*, M. Gremm and I.W. Stewart, Phys. Rev. **D55** (1997) 1226, [arXiv:hep-ph/9609341].

Conference Proceedings, Theses, and Other Unrefereed Papers

- [1] *Top quark mass calibration for Monte-Carlo event generators*, M. Butenschoen, B. Dehnadi, A.H. Hoang, V. Mateu, M. Preisser and I.W. Stewart, PoS **Hadron2017** (2018) 189, [not on arXiv].
- [2] *Matching the Quasi Parton Distribution in a Momentum Subtraction Scheme*, Y. Zhao and I.W. Stewart, PoS **QCDEV2017** (2017) 013, [not on arXiv].
- [3] *Monte Carlo Top Quark Mass Calibration*, B. Dehnadi, A.H. Hoang, V. Mateu, M. Preisser and I.W. Stewart, PoS **RADCOR2017** (2018) 062, [arXiv:1803.02321].
- [4] *Calibration of the top quark mass for Monte-Carlo event generators*, M. Butenschön, B. Dehnadi, A.H. Hoang, V. Mateu, M. Preisser and I.W. Stewart, PoS **ICHEP2016** (2016) 698, [not on arXiv].
- [5] *Summary of Workshop on Future Physics with HERA Data*, A. Bacchetta and others including Iain W. Stewart, Future Physics with HERA Data for Current and Planned Experiments Hamburg, Germany, November 11-13, 2014 (2016) , [arXiv:1601.01499].
- [6] *Top quark mass calibration for Monte-Carlo event generators*, M. Butenschoen, B. Dehnadi, A. Hoang, V. Mateu, M. Preisser and I.W. Stewart, PoS **DIS2016** (2016) 153, [not on arXiv].
- [7] *Summing logarithms and factorization for massive quark initiated jets and the Pythia top quark mass*, M. Butenschoen, B. Dehnadi, A.H. Hoang, V. Mateu, M. Preisser and I.W. Stewart, PoS **LL2016** (2016) 066, [not on arXiv].
- [8] *Employing Helicity Amplitudes for Resummation in SCET*, I. Moutl, I.W. Stewart, F.J. Tackmann and W.J. Waalewijn, arXiv:1605.06226.
- [9] *α_s from e^+e^- C-parameter event shape*, A. Hoang, D. Kolodrubetz, V. Mateu and I. Stewart, Proceedings, High-Precision α_s Measurements from LHC to FCC-ee: Geneva, Switzerland, October 2-13, 2015 (2015) , [arXiv:1512.05194].
- [10] *State-of-the-art predictions for C-parameter and a determination of α_s* , A.H. Hoang, D.W. Kolodrubetz, V. Mateu and I.W. Stewart, Nucl. Part. Phys. Proc. **273-275** (2016) 2015, [arXiv:1501.04753].

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- [12] *Working Group Report: Quantum Chromodynamics*, J.M. Campbell et al., arXiv:1310.5189.
- [13] *1-Jettiness in DIS: Measuring 2 Jets in 3 Ways*, D. Kang, C. Lee and I.W. Stewart, PoS **DIS2013** (2013) 158, [arXiv:1308.4473].
- [14] *A model independent determination of the $B \rightarrow X_s \gamma$ decay rate*, SIMBA collaboration, F.U. Bernlochner, H. Lacker, Z. Ligeti, I.W. Stewart, F.J. Tackmann and K. Tackmann, arXiv:1303.0958.
- [15] *Hadron Mass Effects in Power Corrections to Event Shapes*, V. Mateu, I.W. Stewart and J. Thaler, arXiv:1301.4555.
- [16] *Combining Fixed-Order Helicity Amplitudes With Resummation Using SCET*, I.W. Stewart, F.J. Tackmann and W.J. Waalewijn, arXiv:1211.2305.
- [17] *The SM and NLO Multileg and SM MC Working Groups: Summary Report*, SM AND NLO MULTILEG WORKING GROUP, SM MC WORKING GROUP collaboration, J. Alcaraz Maestre et al., arXiv:1203.6803.
- [18] *Handbook of LHC Higgs Cross Sections: 2. Differential Distributions*, S. Dittmaier et al., arXiv:1201.3084.
- [19] *Jet Substructure at the Tevatron and LHC: New results, new tools, new benchmarks*, A. Altheimer et al., J. Phys. **G39** (2012) 063001, [arXiv:1201.0008].
- [20] *Workshop on Precision Measurements of alphas*, S. Bethke, , A.H. Hoang, I.W. Stewart et al., arXiv:1110.0016.
- [21] *The soft function for exclusive N-jet production at hadron colliders*, T.T. Jouttenus, I.W. Stewart, F.J. Tackmann and W.J. Waalewijn, AIP Conf. Proc. **1441** (2012) 803, [arXiv:1109.3184].
- [22] *Fragmentation inside an identified jet*, M. Procura and I.W. Stewart, AIP Conf. Proc. **1343** (2011) 424, [arXiv:1102.0489].
- [23] *Status of SIMBA*, F.U. Bernlochner, H. Lacker, Z. Ligeti, I.W. Stewart, F.J. Tackmann and K. Tackmann, arXiv:1101.3310.
- [24] *Towards a global fit to extract the $B \rightarrow X_s \gamma$ decay rate and V_{ub}* , F.U. Bernlochner, H. Lacker, Z. Ligeti, I.W. Stewart, F.J. Tackmann and K. Tackmann, PoS **ICHEP2010** (2010) 229, [arXiv:1011.5838].
- [25] *Thrust distribution at N^3LL with power corrections and precision determination of $\alpha_s(m_Z)$* , R. Abbate, M. Fickinger, A. Hoang, V. Mateu and I.W. Stewart, PoS **DIS2010** (2010) 124, [not on arXiv].

- [26] *R-evolving QCD matrix elements*, A.H. Hoang, A. Jain, I. Scimemi and I.W. Stewart, PoS **RADCOR2009** (2010) 041, [not on arXiv].
- [27] *Global Fit of $\alpha_s(m_Z)$ to Thrust at NNLL Order with Power Corrections*, R. Abbate, M. Fickinger, A. Hoang, V. Mateu and I.W. Stewart, PoS **RADCOR2009** (2010) 040, [arXiv:1004.4894].
- [28] *R-evolution: Improving perturbative QCD*, A.H. Hoang, A. Jain, I. Scimemi and I.W. Stewart, AIP Conf. Proc. **1182** (2009) 503, [not on arXiv].
- [29] *The R-evolution of QCD matrix elements*, A.H. Hoang, A. Jain, I. Scimemi and I.W. Stewart, PoS **EFT09** (2009) 011, [arXiv:0905.3193].
- [30] *Top Mass Measurements from Jets and the Tevatron Top-Quark Mass*, A.H. Hoang and I.W. Stewart, Nucl. Phys. Proc. Suppl. **185** (2008) 220, [arXiv:0808.0222].
- [31] *The Top quark jet-function at two loops*, A. Jain, I. Scimemi and I.W. Stewart, PoS **RADCOR2007** (2007) 055, [arXiv:0802.4173].
- [32] *Factorization approach for top mass reconstruction at high energies*, S. Fleming, A.H. Hoang, S. Mantry and I.W. Stewart, Conf. Proc. **C0705302** (2007) LOOP06, [arXiv:0710.4205].
- [33] *The Discovery potential of a Super B Factory. Proceedings, SLAC Workshops, Stanford, USA, 2003*, arXiv:hep-ph/0503261.
- [34] *Heavy quarkonium physics*, QUARKONIUM WORKING GROUP collaboration, N. Brambilla et al., arXiv:hep-ph/0412158.
- [35] *A precision method for determining γ from $B \rightarrow \pi\pi$ decays*, I.W. Stewart, Nucl. Phys. Proc. Suppl. **142** (2005) 255, [not on arXiv].
- [36] *Factorization and the soft collinear effective theory: color suppressed decays*, S. Mantry, D. Pirjol and I.W. Stewart, AIP Conf. Proc. **722** (2004) 141, [arXiv:hep-ph/0401058].
- [37] *The Phenomenology of rare and semileptonic B decays*, D. Pirjol and I.W. Stewart, eConf **C030603** (2003) MEC04, [arXiv:hep-ph/0309053].
- [38] *The Soft Collinear Effective Theory*, I.W. Stewart, in Chiral dynamics: Theory and experiment (CD2003). Mini-Proceedings, Fourth International Workshop (2003) , [arXiv:hep-ph/0311212].
- [39] *Theoretical introduction to B decays and the soft collinear effective theory*, I.W. Stewart, Proceedings, 38th Rencontres de Moriond on QCD and High-Energy Hadronic Interactions: Les Arcs, France, March 22-29, 2003 (2003) , [arXiv:hep-ph/0308185].
- [40] *Factorization, effective field theory, and $B \rightarrow D^{(*)}X$ decays*, I.W. Stewart, Nucl. Phys. Proc. Suppl. **115** (2003) 107, [arXiv:hep-ph/0209159].

- [41] *The Soft collinear effective theory*, I.W. Stewart, Flavor physics and CP violation, Proceedings, 1st International Conference, FPCP, Philadelphia, USA, May 16-18 (2002) , [arXiv:hep-ph/0207253].
- [42] *Threshold top quark production*, I.W. Stewart, AIP Conf. Proc. **618** (2002) 395, [arXiv:hep-ph/0201180].
- [43] *Nonrelativistic bound states in quantum field theory*, A.V. Manohar and I.W. Stewart, Nucl. Phys. Proc. Suppl. **94** (2001) 130, [arXiv:hep-lat/0012002].
- [44] *Bound states in NRQCD / NRQED and the renormalization group*, I.W. Stewart, AIP Conf. Proc. **549** (2000) 598, [arXiv:hep-ph/0009179].
- [45] I.W. Stewart, *Applications of chiral perturbation theory in reactions with heavy particles*, Ph.D. thesis, Caltech, 1999. arXiv:hep-ph/9907448.
- [46] *Nucleon-nucleon effective field theory at NNLO: Radiation pions and 1S0 phase shift*, T. Mehen and I.W. Stewart, arXiv:nuc1-th/9906010.
- [47] I.W. Stewart, *Derivative Expansion Approximation of Vacuum Polarization Effects*, Ph.D. thesis, University of Manitoba, Winnipeg, Canada, 1996.

Colloquia, Conference and Workshop Presentations

- [1] *Quasi-Distributions for PDFs and TMDs*, Plenary talk at Resummation, Evolution, Factorization (REFs) 2020, University of Edinburgh, Virtual Conference (December 7, 2020).
- [2] *Quasi-PDFs and Quasi-TMDs: Progress from continuum and lattice QCD*, Plenary talk at QCD@LHC-X Virtual Conference (September 2, 2020).
- [3] *Quasi-TMDPDFs and the Collins-Soper Kernel*, talk at the Workshop on Resummation, Evolution, and Factorization, Pavia, Italy (November 28, 2019).
- [4] *Glauber Operators in SCET*, talk at the Factorization and Glauber Gluons workshop, Mainz, Germany (August 13, 2019).
- [5] *Collinear Drop*, talk at the Parton Shower and Resummation Workshop, Erwin-Schrödinger Institute, Vienna (June 13, 2019).
- [6] *Collins-Soper Kernel for TMDPDFs from Lattice QCD*, talk at the CFNS Workshop on Lattice Parton Distribution Functions workshop, Brookhaven National Lab (April 18, 2019).
- [7] *Glauber: To Be or Not To Be*, talk at the XVI'th Annual Workshop on the Soft Collinear Effective Theory (March 25, 2019).
- [8] *TMD Collaboration Progress Report, Theory*, talk for US Department of Energy, Office of Nuclear Physics, Washington DC (March 6, 2019).

- [9] *Theory Connections between the CTP and DESY-Hamburg*, at the Hamburg-MIT/Boston Network Kick-Off Workshop, Hamburg, Germany (January 21, 2019).
- [10] *Soft Collinear Effective Theory and Jets in QCD*, plenary talk at the Quark Confinement and Hadron Spectrum conference, Maynooth University (August 6, 2018).
- [11] *Soft Collinear Effective Theory*, five lectures at the 33rd Annual Hampton University graduate studies program, HUGS 2018, Jefferson Lab, Virginia (June 5-7, 2018).
- [12] *Jet Mass Spectrum for Groomed and Ungroomed Top Jets*, talk at the Sante Fe Jets and Heavy Flavor Workshop, Sante Fe, New Mexico (January 29, 2018).
- [13] *Using EFT to answer: What is the mass of the heaviest known elementary particle?*, talk to 1st year MIT graduate students (November, 2017).
- [14] *New Windows into the Strong Interaction*, physics department colloquium at the University of California, Los Angeles (November, 2017).
- [15] *Introduction to the Soft-Collinear Effective Theory*, Two lectures at the FGZ-PH Summer School on Methods of Effective Field Theory and Lattice Field Theory, Munich, Germany (July, 2017).
- [16] *Soft-Collinear Effective Theory*, Four lectures at the first TMD summer school, Temple University, Philadelphia (June, 2017).
- [17] *Perturbative QCD*, Three lectures at the biannual summer school at the International Center for Theoretical Physics, Trieste, Italy (June, 2017).
- [18] *Power Corrections and Resummation from SCET*, workshop on QCD Structure of Nucleons in the Modern Era, UCLA, Los Angeles (June, 2017).
- [19] *A Lagrangian for Factorization Violation and Forward Scattering*, Workshop on Iterated integrals and the Regge limit, Higgs Center, Edinburgh, Scotland (April, 2017).
- [20] *What is the Mass of the Heaviest Known Elementary Particle?*, MIT faculty lunch talk, MIT, Cambridge (December, 2016).
- [21] *New Windows into the Strong Interaction and Beyond*, Physics Department colloquium at Yale, New Haven, Connecticut (December, 2016).
- [22] *New Windows into the Strong Interaction and Beyond*, Physics Department colloquium at Temple University, Philadelphia, Pennsylvania (October, 2016).
- [23] *Top Mass Measurements with and without Grooming*, talk at the Advances in QCD and Applications to Hadron Colliders Workshop, Argonne National Lab, Chicago, Illinois (October, 2016).
- [24] *Hard and Forward Scattering: New Tools from EFT*, keynote speaker at the Bay Area Theory Symposium, San Francisco State University, California (October, 2016).

- [25] *Perturbative TMDs: p_T resummation at next-to-next-to-next-to-leading-logarithmic order*, talk at the 1st annual TMD collaboration meeting, Brookhaven National Laboratory, New York (October, 2016).
- [26] *Introduction to Collider Physics and Effective Field Theory Methods*, as part of University of Vienna Professorship, series of four lectures at the University of Vienna, Vienna, Austria (June and July, 2016).
- [27] *An Effective Field Theory for both Hard and Forward Scattering*, talk at the QCD Evolution Workshop, Amsterdam, Netherlands (May, 2016).
- [28] *The Character of Glauber Operators: Evolution, Shockwave, Cheshire, and Factorization*, talk at the XIIIth Annual Workshop on Soft-Collinear Effective Theory, Hamburg, Germany (March, 2016).
- [29] *An EFT for Forward Scattering and Factorization Violation*, second talk at the Workshop on Threshold Logarithms Beyond Leading Power, Higgs Centre for Theoretical Physics, Edinburgh, Scotland (January, 2016).
- [30] *Introduction to the Soft-Collinear Effective Theory beyond Leading Power*, talk at the Workshop on Threshold Logarithms Beyond Leading Power, Higgs Centre for Theoretical Physics, Edinburgh, Scotland (January, 2016).
- [31] *An Effective Field Theory for Factorization Violation (and Glauber Gluons)*, talk at the Workshop on QCD Factorization, University of Buffalo, New York (November, 2015).
- [32] *Factorization: Collider Physics from Universal Functions*, colloquium at the Simons Foundation MPS Annual Meeting, New York (October, 2015).
- [33] *An EFT for Forward Scattering and Factorization Violation*, joint Nikhef-University of Amsterdam Seminar, Amsterdam, Netherlands (July, 2015).
- [34] *An EFT Description of Forward Scattering and Factorization Violation*, at the Radcor-Loopfest 2015 Conference, UCLA, Los Angeles, CA (June, 2015).
- [35] *Effective Field Theory, 8.EFTx*, retrospective presentation to MITx and edX about the creation and implementation of my online graduate course 8.EFTx, Cambridge, MA (February, 2015).
- [36] *Precision Jet Physics in DIS*, talk at the workshop on Future Physics with HERA Data, DESY, Hamburg, Germany (November, 2014).
- [37] *Perturbative QCD at Colliders*, talk at the Long Range Plan Joint Town Hall Meetings on QCD, Temple University, PA (September, 2014).
- [38] *Introduction to the Soft-Collinear Effective Theory*, Symmetry Breaking Summer School, Lake Chiemsee, Germany (September, 2014).

- [39] *Effective Field Theory and Soft-Collinear Effective Theory*, four lectures at "Journeys through the Precision Frontier: Amplitudes for Colliders", TASI summer school, Boulder (June, 2014).
- [40] *Recent Advances from Soft Collinear Effective Theory*, plenary talk at Loops and Legs in Quantum Field Theory, Weimar, Germany (April, 2014).
- [41] *Reggeization from Renormalization*, talk at the XIth Annual Workshop on Soft-Collinear Effective Theory, Munich, Germany (March, 2014).
- [42] *Glauber Gluons in SCET*, talk at the ESI Program on Jets and Quantum Fields for the LHC and Future Colliders, Vienna, Austria (July, 2012).
- [43] *New Developments in Perturbative QCD*, plenary talk at the Phenomenology 2013 Symposium (Pheno), University of Pittsburgh, PA (May, 2013).
- [44] *Precision Jet Physics for pp and e^-p Collisions*, theorist of the month talk at DESY Hamburg, Germany (March, 2013).
- [45] *Jet Vetoes*, at the QCD at LHC 2012 workshop, Michigan (August, 2012).
- [46] *Jet Mass at the LHC at NNLL Order*, at the Boost Workshop, Valencia, Spain (July, 2012).
- [47] *Jet Physics Lectures*, at the TAE (Taller de Altas Energias Complutense) Summer School, Madrid, Spain (July, 2012).
- [48] *Exclusive Higgs Theory*, at the Next Stretch of the Higgs Magnificent Mile conference, Chicago (May, 2012).
- [49] *Higgs + 1-jet at the LHC at NNLL order*, LoopFest XI Conference, Pittsburgh (May, 2012).
- [50] *LHC Jet Mass Spectrum at NNLL*, talk at the 9'th annual SCET workshop, Madrid, Spain (March, 2012).
- [51] *A 9 Billion Dollar Venture to Shake up the Laws of Nature*, Physics IAP Lecture Series, MIT (January, 2012).
- [52] *Theory Uncertainties for Higgs Searches using Jet Bins*, at the LBL Higgs Jamboree workshop, Berkeley (October, 2011).
- [53] *Jet Physics from Static Charges in AdS*, at the Frontiers of QCD workshop, INT, Seattle (October, 2011).
- [54] *Event Shape Distributions and Precision Results for $\alpha_s(m_Z)$* , at the PANIC conference, MIT (July, 2011).
- [55] *N-Jettiness and LHC Jet Masses at Next-to-Next-to-Leading-Log Order*, at the Boost workshop, Princeton (May, 2011).
- [56] *Mastering Jets: New Windows into the Strong Interactions and Beyond*, at the Physics Department Colloquium, University of Arizona (March, 2011).

- [57] *Soft Collinear Effective Theory and Jets*, review talk at the Boston Jet Physics Workshop, Harvard (January, 2011).
- [58] *Precision QCD: From determining the strong coupling to Jets at the LHC*, MIT faculty lunch talk (November, 2010).
- [59] *Mastering Jets: New Windows into the Strong Interaction and Beyond*, Harvard physics department colloquium (November, 2010).
- [60] *Effective Field Theory for QCD at Colliders*, TNT colloquium, Duke University (October, 2010).
- [61] *Soft Collinear Effective Theory Results for QCD at Colliders*, talk at the INT workshop “Perturbative and Nonperturbative Aspects of QCD at Colliders”, Seattle (September, 2010).
- [62] *Determining $\alpha_s(m_Z)$: New Precision Results from Jets*, talk at the Quark Confinement and Hadron Spectrum conference, Madrid, Spain (August, 2010).
- [63] *Thrust at N^3LL and $\mathcal{O}(\alpha_s^3)$ with Power Corrections: A Precision Global Fit for $\alpha_s(m_Z)$* , at the workshop entitled “Forefront QCD and LHC Discoveries”, Aspen (June, 2010).
- [64] *Glauber Gluons in SCET*, at the 7'th annual SCET workshop, Ringberg Castle, Germany (April, 2010).
- [65] *Top Quark and Electroweak Physics: Theory Perspective*, Les Rencontres de Physique de la Vallee D'Aoste, La Thuile, Italy (March, 2010).
- [66] *Precision Measurements at the ILC*, plenary talk at the Linear Collider Workshop of the Americas, Albuquerque, NM (September, 2009).
- [67] *Determining $\alpha_s(m_Z)$: New Precision Results from Jets*, joint colloquium between DESY and the University of Hamburg, Hamburg, Germany (June, 2009).
- [68] *Factorization for Nonleptonic Decays: pQCD, QCDF, SCET*, at the 6th International conference on “Flavor Physics and CP Violation”, FPCP 2009, Lake Placid, NY (June, 2009).
- [69] *Factorization for Jet Production at the LHC: from PDFs to Initial State jets*, Ringberg Workshop on “New Physics, Flavors, and Jets”, Ringberg Castle, Germany (April, 2009).
- [70] *SCET Ingredients for High Precision Analyses of Thrust and Inclusive B-decays*, International Workshop on Effective Field Theories: from the Pion to the Upsilon, Valencia, Spain (January, 2009).
- [71] *Mastering Jets: New Windows into the Strong Interaction and Beyond*, MIT department colloquium, Cambridge, MA (November, 2008).

- [72] *Effective Field Theory with an Application to Jets*, International Max Planck Research School (IMPRS) Block course, three lectures, Max-Planck Institute for Physics (Werner Heisenberg Institute), Munich, Germany (October, 2008).
- [73] *Introduction to the Soft-Collinear Effective Theory*, three lectures at the Dubna International Summer School on Heavy Quark Physics, Dubna, Russia (August, 2008).
- [74] *Soft-Collinear Effective Theory*, four lectures at the Benasque Summer school, Benasque, Spain (July, 2008).
- [75] *Uncertainties in Top-Mass Measurements and What Theory Can Say*, 2nd International Workshop on Theory, Phenomenology, and Experiment in Heavy Flavor Physics, Capri, Italy (June, 2008).
- [76] *QCD Challenges in Nonleptonic Decays: SCET Factorization Successes and Open Questions*, CERN workshop on Flavour as a Window to New Physics at the LHC, CERN, Switzerland (June, 2008).
- [77] *Top-Mass from Jets at the ILC: Two loop results and more*, Loopfest VII, workshop on Radiative Corrections for the LHC and ILC, University of Buffalo, New York (May, 2008).
- [78] *Outlook*, Invited summary talk for the 5th Annual Workshop on the Soft-Collinear Effective Theory, SCET 2008, Mainz, Germany (April, 2008).
- [79] *Precision Nonleptonic Decays at a Super B-factory*, Invited plenary talk at the 3rd International Workshop on B Factories and New Measurements, Atami, Japan (January, 2008).
- [80] *Factorization for Top-Mass Reconstruction*, Invited talk at the workshop on Flavor Dynamics, Albufeira, Portugal (November, 2007).
- [81] *Soft-Collinear Effective Theory*, Invited plenary talk at the Gordon Nuclear Physics Research Conference (July, 2007).
- [82] *Theoretical Tools for Nonleptonic B-Decays*, Invited plenary talk at the Conference on Flavor Physics and CP Violation, Bled, Slovenia (May, 2007).
- [83] *New Tools for Understanding the Strong Interactions*, Physics department colloquium, Perimeter Institute for Theoretical Physics (April, 2007).
- [84] *SCET-II: Endpoint Singularities and the Zero-Bin*, Invited talk at the fourth annual SCET workshop, Berkeley, CA (March, 2007).
- [85] *Effective Field Theory*, Invited talk, Nuclear Physics 2007 Long Range Plan, Joint Town Hall Meeting on QCD, Rutgers (January, 2007).
- [86] *Dissecting Penguins and Annihilation with SCET: rapidity factorization and the zero-bin*, Invited talk at the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan (December, 2006).

- [87] *Dispersion Analyses for V_{ub} and Form Factor Shape Parameters*, Invited talk at the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan (December, 2006).
- [88] *Understanding the Strong Interactions with Effective Theories*, Physics department colloquium, Carnegie Mellon University (November, 2006).
- [89] *Soft-Collinear Effective Theory*, Two lectures at the Ringberg Heavy Flavor School (October, 2006).
- [90] *Effective Field Theory*, Three lectures at the 19th Taiwan Spring School on Particles and Fields (April, 2006).
- [91] *TBA: Taking the 0-Bin into Account*, Invited talk at the third annual SCET workshop, Tucson, Arizona (March, 2006).
- [92] *Factorization, B decays, and the Soft-Collinear Effective Theory*, Colloquium, LPNHE, Paris (February, 2006).
- [93] *Nonleptonic B Decays in SCET, quasi 2-body and 3-body channels*, Invited talk at the Workshop on Three-Body Charmless B Decays, LPNHE, Paris (February, 2006).
- [94] *Understanding the Strong Interactions with Effective Theories*, physics department colloquium, MIT (November, 2005).
- [95] *Understanding the Strong Interactions with Effective Theories*, physics department colloquium, Caltech (November, 2005).
- [96] *SCET: Recent Developments*, Invited talk at the workshop on Flavor Dynamics, Chamonix (October, 2005).
- [97] *Opportunity Knocks: A Theoretical Perspective on B-Physics*, Presentation to the Annual Meeting of the SLAC Users Organization, Menlo Park, CA (September, 2005).
- [98] *QCD effects in Weak Decays*, LNS Nuclear and Particle Physics Colloquium, MIT (September, 2005).
- [99] *QCD effects in Weak Decays*, Invited plenary talk, XXII International Symposium on Lepton-Photon Interactions at High Energy, Lepton-Photon 2005, Uppsala, Sweden (July, 2005).
- [100] *Theoretical Accuracy of V_{ub} from Exclusive Decays*, talk at the joint SLAC/INT workshop: Flavor Physics and QCD, Institute of Nuclear Theory, Seattle, WA (May, 2005).
- [101] *Status of Factorization*, talk at the joint SLAC/INT workshop: Flavor Physics and QCD, Institute of Nuclear Theory, Seattle, WA (May, 2005).
- [102] *Taming Hadronic Uncertainties with SCET*, Invited plenary talk at CKM 2005, Workshop on the Unitarity Triangle, San Diego (March, 2005).
- [103] *The Theory of B-Decays*, Invited talk at the Aspen Winter Conference, Aspen (February, 2005).

- [104] *QCD 30 Years Later: from Paradigm to Practice*, physics department colloquium, University of Winnipeg, Canada (January, 2005).
- [105] *Soft-Collinear Effective Theory: Overview and Recent B-Physics Results*, Talk given as one of the 10 invited speakers for the UK Annual Theory Meeting, Durham, England (December, 2004).
- [106] *Soft-Collinear Effective Theory: Overview and Recent Results*, Invited talk at the 32nd International Conference on High Energy Physics (ICHEP), Beijing, China (August, 2004).
- [107] *Introduction to the Soft-Collinear Effective Theory*, Invited talk given at the KITP program on QCD and String Theory, Santa Barbara, CA (August, 2004).
- [108] *QCD Effects in B and Λ_b Decays*, Invited plenary talk at the 6th International Conference on Hyperons, Charm, and Beauty Hadrons (BEACH), Chicago (June, 2004).
- [109] *The Theory of Nonleptonic B Decays*, TNT Colloquium, Duke University, South Carolina (March, 2004).
- [110] *Nonleptonic Decays and the Soft-Collinear Effective Theory*, Invited talk at the Super B Factory Workshop, Hawaii (January, 2004).
- [111] *The Theory of Nonleptonic B Decays*, LNS Nuclear and Particle Physics Colloquium, MIT (December, 2003).
- [112] *Working Group 2 Report*, Second workshop on the Discovery Potential of an Asymmetric B Factory at 10^{36} , SLAC, Stanford, CA (October, 2003).
- [113] *QCD, Factorization, and the Soft-Collinear Effective Theory*, Invited plenary talk at the 9th International Conference on B-Physics at Hadron Machines, Beauty 2003, Pittsburgh, PA (October, 2003).
- [114] *Recent Developments in the Soft-Collinear Effective Field Theory*, Invited plenary talk at the 4th International Workshop on Chiral Dynamics: Theory and Experiment, Bonn (September, 2003).
- [115] *The Soft-Collinear Effective Theory: Overview and Applications*, Invited talk at the workshop The Flavor puzzle: data confronts theory, Aspen Center for Physics, CO (August, 2003).
- [116] *Introduction to the Soft-Collinear Effective Theory*, Invited plenary talk at the Ringberg Phenomenology Workshop on Heavy Flavors, Rottach-Egern, Germany (April, 2003).
- [117] *Theoretical Introduction to B-Decays*, Invited plenary talk at QCD and High Energy Interactions, XXXVIIIth Rencontres de Moriond, Les Arcs, France (March, 2003).
- [118] *Effective Theory for Heavy Quarkonium Systems*, Invited plenary talk at the CERN Workshop on Quarkonium, Geneva, Switzerland (November, 2002).

- [119] *The Soft-Collinear Effective Field Theory*, Invited talk at the workshop Pushing the Limits of QCD, Benasque, Spain (July, 2002).
- [120] *Factorization and Effective Field Theory*, Invited plenary talk at Hyperons, Charm, and Beauty Hadrons (BEACH), University of British Columbia, Vancouver, Canada (June, 2002).
- [121] *The Soft-Collinear Effective Theory*, Invited plenary talk at Flavor Physics and CP violation, University of Pennsylvania, Philadelphia, PA (May, 2002).
- [122] *Top Quark Production*, Invited plenary talk at The 9th International Symposium on Heavy Flavor Physics, Caltech, CA (September, 2001).
- [123] *Factorization and the Soft-Collinear Effective Theory*, Invited talk at the workshop Flavor Physics: Standard Model and Beyond, Aspen Center for Physics, CO (August, 2001).
- [124] *Threshold Top Quark Physics*, One of two invited plenary talks at The American Linear Collider Workshop, Johns Hopkins University, MD (March, 2001).
- [125] *Bound States in NRQED/NRQCD and the renormalization group*, Invited talk at the workshop Effective Field Theories and Effective Interactions, Institute for Nuclear Theory, Seattle, WA (July, 2000).
- [126] *Renormalization Group for NRQCD and NRQED*, Invited talk at CIPANP the 7th Conference on the Intersections of Particle and Nuclear Physics, Quebec City, Canada (May, 2000).