

## CURRICULUM VITAE

Howard E. Haber  
Distinguished Professor of Physics  
Department of Physics  
University of California, Santa Cruz

### EMPLOYMENT

2020–present	Research Professor of Physics, Department of Physics, UC Santa Cruz
1990–2020	Professor of Physics, Department of Physics, UC Santa Cruz
1989–1990	Associate Professor of Physics, Department of Physics, UC Santa Cruz
1988–1989	Assistant Professor of Physics, Department of Physics, UC Santa Cruz
1984–1988	Adjunct Assistant Professor of Physics, Department of Physics, UC Santa Cruz
1982–1984	Assistant Research Physicist/Visiting Assistant Professor, UC Santa Cruz
1980–1982	Postdoctoral Research Associate, University of Pennsylvania
1978–1980	Postdoctoral Research Associate, Theoretical Physics Group, Lawrence Berkeley Laboratory
1975–1978	Research Assistant, University of Michigan
1973–1978	Teaching Assistant, University of Michigan

### EDUCATION

Ph.D., Physics	University of Michigan, 1978
S.M., Physics	Massachusetts Institute of Technology, 1973
S.B., Physics	Massachusetts Institute of Technology, 1973
S.B., Math	Massachusetts Institute of Technology, 1973

### ACADEMIC WEB PAGE OF HOWARD E. HABER

<https://scipp-legacy.pbsci.ucsc.edu/~haber/>

### Professional Activities

#### *Honors and Awards*

2023	American Physical Society Outstanding Referee
2018	Simons GGI Visiting Scientist Fellowship, The Galileo Galilei Institute for Theoretical Physics, Arcetri, Florence, Italy
2017	Co-recipient of the American Physical Society J.J. Sakurai Prize for Theoretical Particle Physics (\$10,000, shared among the four recipients)

2015	Received the honorary designation of Distinguished Professor of Physics
2013	Selected (with Abe Seiden) to deliver the UCSC Faculty Research Lecture in February, 2014
2013	Finalist for an Excellence in Teaching Award, chosen by the Committee on Teaching of the UCSC Faculty Senate
2009	Alexander von Humboldt Research Award, €60,000
2008–2011	Visiting Professor, Institute for Particle Physics Phenomenology, University of Durham, England
1998	Frontier Fellow, Fermilab
1995	Scientific Associate, CERN
1993	elected Fellow of the American Physical Society
1985–1988	Department of Energy Outstanding Junior Investigator

### *Institutional Affiliations*

2015–present	CERN User
2013–present	Honorary Member of the Aspen Center for Physics
2013–present	Lab Affiliate, Lawrence Berkeley National Laboratory
1998–2024	Fermilab User
1982–present	Lab Affiliante, SLAC National Accelerator Center

### *Grants and Contracts*

2025–2026	Department of Energy Research Grant (with Wolfgang Altmannshofer, Michael Dine, Stefania Gori, Stefano Profumo, and Edgar Shaghoulain), \$521,000
2024–2025	Department of Energy Research Grant (with Wolfgang Altmannshofer, Michael Dine, Stefania Gori, Stefano Profumo, and Edgar Shaghoulain), \$504,000
2023–2024	Department of Energy Research Grant (with Wolfgang Altmannshofer, Michael Dine, Stefania Gori, Stefano Profumo, and Edgar Shaghoulain), \$487,000
2022–2023	Department of Energy Research Grant (with Wolfgang Altmannshofer, Michael Dine, Stefano Profumo) \$382,000
2021–2022	Department of Energy Research Grant (with Wolfgang Altmannshofer, Michael Dine, Stefano Profumo), \$371,000
2019–2020	Department of Energy Research Grant (with Michael Dine and Stefano Profumo), \$317,000
2018–2019	Department of Energy Research Grant (with Michael Dine and Stefano Profumo), \$308,000
2017–2018	Department of Energy Research Grant (with Michael Dine and Stefano Profumo), \$299,000

2016–2017	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$403,000
2015–2016	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$411,000
2014–2015	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$420,000
2013–2014	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$411,000 (eleven months)
2012–2013	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$123,000 (six months)
2011–2012	Department of Energy Research Grant (with Thomas Banks, Michael Dine and Stefano Profumo), \$474,000
2010–2011	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$410,000
2009–2010	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$403,000
2008–2009	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$412,000
2007–2008	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$391,000
2006–2007	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$380,000
2005–2006	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$370,000
2004–2005	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$375,000
2003–2004	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$395,000
2002–2003	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$360,000
2001–2002	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$330,000
2000–2001	Department of Energy Research Grant (with Thomas Banks and Michael Dine), \$300,000
2000	NSF grant in support of the RADCOR-2000 conference, \$5,000
1999–2000	Department of Energy Research Grant (with Michael Dine), \$170,000
1998–1999	Department of Energy Research Grant (with Michael Dine), \$160,000
1997–1998	Department of Energy Research Grant (with Michael Dine), \$146,000
1997–2000	US–Israel Bi-national Science Foundation grant (with Yosef Nir and Michael Dine)
1996–1998	Maria Sklodowska-Curie Joint Fund, Poland–USA (with Stefan Pokorski and Michael Dine)
1996–1997	Department of Energy Research Grant (with Michael Dine), \$141,000

1995–1996	Department of Energy Research Grant (with Michael Dine), \$144,000
1994–1995	Department of Energy Research Grant (with Michael Dine), \$152,000
1993–1996	US–Israel Bi-national Science Foundation grant (with Yosef Nir and Michael Dine)
1993–1994	Department of Energy Research Grant (with Michael Dine), \$160,000
1993–1994	Texas National Laboratory Research Commission Grant (with John Gunion), \$120,000
1992–1993	Department of Energy Research Grant (with Michael Dine), \$160,000
1991–1992	Department of Energy Research Grant (with Michael Dine), \$160,000
1990–1991	Department of Energy Research Grant (with Michael Dine), \$135,000
1989–1990	Department of Energy Research Grant, \$90,000
1988–1989	Department of Energy Research Grant (with Thomas Banks), \$178,386
1987–1988	Department of Energy Outstanding Junior Investigator, and Research Grant (with Thomas Banks), \$160,000
1986–1987	Department of Energy Outstanding Junior Investigator Research Grant, \$60,000
1986	grants for the 1986 Theoretical Advanced Study Institute (with Joel Primack) Department of Energy: \$30,000 and National Science Foundation: \$30,000
1985–1986	Department of Energy Outstanding Junior Investigator Research Grant, \$57,000
1985	Department of Energy Outstanding Junior Investigator Research Grant, \$30,000

*Partner to International research efforts*

2017–2021	Member of the Harmonia project, under contract UMO-2015/18/M/ST2/0051, supported by the Polish National Science Center for Scientific Research
2015–2019	<i>Non Minimal Higgs</i> , MSCA-RISE grant of the European Commission (Marie Skłodowska-Curie Actions), €301,500

*Professional Organizations*

American Physical Society  
American Association of Physics Teachers  
Sigma Xi, University of California, Santa Cruz Chapter  
Mathematical Association of America

## OUTSIDE PROFESSIONAL ACTIVITIES

### Invited Talks at Conferences and Workshops

November, 2025	BSM Higgs Physics and GW (Georg Fest), at DESY in Hamburg, Germany, “Celebrating Georg Weiglein60 at two loops (and beyond)”
October, 2025	HHH Workshop 2025, at IUC Dubrovnik, Croatia, “Detecting P-even, CP-violation at future colliders in multiple Higgs boson production”
September, 2025	Scalars 2025, at the University of Warsaw in Warsaw, Poland, “RG-stability of parameter relations in the absence of a conventional symmetry”
June, 2025	The 7th International Workshop on "Higgs as a Probe of New Physics" (HPNP2025), at Osaka University, in Osaka, Japan, “RG-stable parameter relations of a scalar field theory in absence of a symmetry”
May, 2025	Corfu2025 Workshop on Future Accelerators, at Mon-Repos in Corfu, Greece, “Higgs physics at future $e^+e^-$ colliders”
October, 2024	Workshop on Extended scalar sectors from all angles, at CERN in Geneva, Switzerland, “Flavor-nondiagonal neutral Higgs Yukawa couplings revisited”
September, 2024	2024 Workshop on Multi-Higgs Models, in Lisbon, Portugal, “Flavor-nondiagonal neutral Higgs Yukawa couplings revisited”
June, 2024	SUSY 2024: 31st International Conference on Supersymmetry and Unification of Fundamental Interactions: Theory meets Experiment, in Madrid, Spain, “Classes of complete dark photon models constrained by $Z$ Physics”
June, 2024	PLANCK 2024: 26th International Conference from the Planck Scale to the Electroweak Scale, In Lisbon, Portugal, “Flavor-nondiagonal neutral Higgs Yukawa couplings revisited”
May, 2024	Cosmology, Astrophysics, Theory and Collider Higgs 2024 (CATCH22+2), at the Dublin Institute for Advanced Study (DIAS), in Dublin, Ireland, “Classes of complete dark photon models constrained by $Z$ Physics ”
September, 2023	Scalars 2023, at the University of Warsaw in Warsaw, Poland, “Scalar revelations at future $e^+e^-$ colliders”
September, 2023	Higgs Days at Santander 2023, in Santander, Spain, “Signals of new heavy scalars in the flavor-aligned 2HDM”
July, 2023	The XXX International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2023), at the University of Southampton, in Southampton, England, “Supersymmetry confronts a SM-like Higgs boson”
July, 2023	Pre-SUSY 2023, preceding the 30th International Conference on Supersymmetry and Unification of Fundamental Interactions, at the University of Southampton, in Southampton, England, “Supersymmetry and Higgs Physics” (two lectures)

June, 2023	The 6th International Workshop on "Higgs as a Probe of New Physics" (HPNP2023), at Osaka University, in Osaka, Japan, "Signals of new heavy scalars in the flavor-aligned 2HDM"
May, 2023	Beyond the SM from Colliders to the Early Universe: a symposium in honor of Marcela Carena and Carlos Wagner on the occasion of their 60th birthdays, at the University of Chicago in Chicago, IL USA and at Fermilab in Batavia, IL USA, "My Journey through Physics with Marcela and Carlos"
May, 2023	PLANCK 2023: 25th International Conference from the Planck Scale to the Electroweak Scale, at the University of Warsaw in Warsaw, Poland, "Higgs Boson Physics—The View Ahead"
May, 2023	International Workshop on Future Linear Colliders (LCWS2023), at SLAC National Accelerator Laboratory in Stanford, CA USA, "P-even, CP-violating Signals in Scalar-Mediated Processes"
March, 2023	Herbi-Fest, at the Bethe Center for Theoretical Physics in Bonn, Germany, "Adventures from Spinors to Supersymmetry"
August, 2022	Workshop on Multi-Higgs Models, at the Instituto Superior Técnico in Lisbon, Portugal, "P-even, CP-violating Signals in Scalar-Mediated Processes"
June, 2022	The XXIX International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2022), at the University of Ioannina in Ioannina, Greece, "The anapole moment of a charged lepton in softly-broken Supersymmetric QED"
December, 2021	DISCRETE 2020-2021 Workshop, "A natural mechanism for a SM-like Higgs boson in the 2HDM without decoupling"
August, 2021	Charged Higgs Online Workshop, "Extended Higgs sector at present and future colliders"
August, 2021	The 49th SLAC Summer Institute (SSI 2021)—The Higgs State Fair, at SLAC in Stanford, CA USA, "Higgs Boson Physics—The View Ahead"
March, 2021	The 5th International Workshop on "Higgs as a Probe of New Physics" Special Edition 2021 (HPNP2021), in Osaka, Japan, "Exceptional regions of the 2HDM parameter space"
September, 2019	Higgs Days 2019, in Santander, Spain, "Future Perspectives (Part 2)"
September, 2019	Scalars 2019, in Warsaw, Poland, "The Future of Particle Physics—A Theorist's Perspective"
September, 2019	Scalars 2019, in Warsaw, Poland, "Approximate alignment without decoupling in the 2HDM naturally"
August, 2019	Sorak Symposium reminiscence on Particle Physics, in South Korea, "Quo Vadis Higgs (or what the current Higgs data is trying to tell us)"
August, 2019	Sorak Symposium reminiscence on Particle Physics, in South Korea, "The incomplete and biased history of the Higgs boson"
May, 2019	7th RISE Collaboration Workshop: NonMinimalHiggs, in Helsinki Finland, "Approximate alignment without decoupling in the 2HDM naturally"

February, 2019	The 4th Toyama International Workshop on "Higgs as a Probe of New Physics 2019" (HPNP2019), in Osaka, Japan, "Symmetries and Mass Degeneracies in the Scalar Sector"
December, 2018	The 5th HARMONIA Warsaw-Lisbon-Catania-Dresden meeting, at the OCHOTA campus of the University of Warsaw, in Warsaw, Poland, "Symmetries and Mass Degeneracies in the Scalar Sector"
September, 2018	Workshop on Multi-Higgs Models, at the Instituto Superior Técnico in Lisbon, Portugal, "Symmetries and Mass Degeneracies in the Scalar Sector"
August, 2018	The 46th SLAC Summer Institute–Standard Model at 50: Successes and Challenges, at SLAC in Stanford, CA USA, "The woefully incomplete, unabashedly biased history of the Higgs Boson"
June, 2018	MASS2018: Origin of Mass at the High Energy and Intensity Frontier, at CP3 Origins in Odense, Denmark, "Beyond the Standard Model Higgs Boson"
May, 2018	PLANCK 2018: 21th International Conference from the Planck Scale to the Electroweak Scale, in Bonn, Germany, "Mass Degeneracies in Extended Higgs Sectors"
March, 2018	Rencontres de Moriond: QCD and High Energy Interactions, in La Thuile, Aosta Valley, Italy, "Approximate Higgs alignment without decoupling"
February, 2018	TRIUMF Theory Workshop on New Physics and the Higgs, at TRIUMF in Vancouver, BC, Canada, "Mass Degeneracies in Extended Higgs Sectors"
November, 2017	Scalars 2017, at the University of Warsaw, in Warsaw, Poland, "Replicating the Higgs Doublet"
September, 2017	Energy Frontier in Particle Physics: LHC and Future Colliders, at National Taiwan University in Taipei, Taiwan, "Alignment in Models of Extended Higgs Sectors"
September, 2017	GGI Workshop: "Collider Physics and the Cosmos", at the Galileo Galilei Institute for Theoretical Physics in Arcetri, Florence, Italy, "Non-minimal Higgs sectors"
May, 2017	2nd HARMONIA Meeting, in Warsaw, Poland, "In search of natural Higgs alignment without decoupling in the 2HDM"
May, 2017	PLANCK 2017: 20th International Conference from the Planck Scale to the Electroweak Scale, in Warsaw, Poland, "Alignment in extended Higgs models"
March, 2017	3rd RISE Collaboration Meeting: NonMinimalHiggs, in Toyama, Japan, "High scale flavor-aligned 2HDM"
March, 2017	The 3rd Toyama International Workshop on 'Higgs as a Probe of New Physics 2017' (HPNP2017), in Toyama, Japan, "A Theorist's Outlook for Higgs physics beyond the Standard Model"
January, 2017	The 2017 April American Physical Society Meeting in January, in Washington, DC, "Beyond the Standard Model Higgs Boson"

December, 2016	Helsinki Higgs Forum, at the Helsinki Institute of Physics in Helsinki, Finland, “High scale flavor alignment in the 2HDM and its phenomenology”
November, 2016	Higgs Couplings 2016, at SLAC, Stanford, CA, “SUSY and the alignment limit”
October, 2016	Sixth International Workshop on the Prospects for Charged Higgs Discovery at Colliders (CHARGED 2016), in Uppsala, Sweden, “Future Higgs Studies: A Theorist’s Outlook”
September, 2016	Higgs Days at Santander 2016, in Santander, Spain, “Alignment without decoupling in the MSSM”
September, 2016	Workshop on Multi-Higgs Models, in Lisbon, Portugal, “Flavor violation via Planck scale alignment in the 2HDM”
September, 2016	Higgs Hunting 2016, in Paris, France, “Higgs Hunting 2016 Theory Summary Talk”
July, 2016	The 24rd International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2016), in Melbourne, Australia, “Extended Higgs sectors and the alignment limit”
June–July, 2016	Pre-SUSY 2016, preceding the 24th International Conference on Supersymmetry and Unification of Fundamental Interactions, University of Melbourne, Melbourne, Australia, “SM and SUSY Higgs” (three lectures)
June, 2016	2016 Theoretical Advanced Study Institute (TASI 2016), University of Colorado, Boulder, CO, “Supersymmetric Theories and Models” (four lectures)
August, 2015	The 23rd International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2015), at Granlibakken Conference Center, Tahoe City, CA, “Partially Natural Two Higgs Doublet Models”
May, 2015	Third KUTS Workshop, LP THE, Paris, France, “The Alignment Limit of the MSSM Higgs sector—the Impact of Radiative Corrections”
April, 2015	The 4th MCTP Spring Symposium on Higgs Boson Physics in the Standard Model and Beyond, Ann Arbor, MI, “Partially Natural Two Higgs Doublet Models”
February, 2015	The 2nd Toyama International Workshop on Higgs as a Probe of New Physics 2015 (HPNP2015), Toyama, Japan, “Constraints on the alignment limit of the MSSM Higgs sector”
January, 2015	SID Workshop, SLAC, Stanford, CA, “Higgs Physics and the ILC”
September, 2014	IFT Program on Physics Challenges in the face of LHC-14, Madrid, Spain, “Constraints on the alignment limit of the MSSM Higgs sector”
September, 2014	IFT Program on Physics Challenges in the face of LHC-14, Madrid, Spain, “Motivations for a stable scalar in an extended Higgs sector”
September, 2014	Higgs Days at Santander 2014, Santander, Spain, “2HDM Benchmarks—Theoretical Framework”
September, 2014	3rd Workshop on Multi-Higgs Models, Lisbon, Portugal, “Constraints on the alignment limit of the MSSM Higgs sector”



July, 2014	22nd International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2014), Manchester, UK, “Can the $Hb\bar{b}$ coupling be equal in magnitude to its SM value but opposite in sign?”
June, 2014	Workshop of the LHC Higgs Cross Section Working Group, CERN “2HDM—Report on recent activities”
May, 2014	Americas Workshop on Linear Colliders (AWLC14), “Probing wrong-sign Yukawa couplings”
May, 2014	Americas Workshop on Linear Colliders (AWLC14), “Higgs Physics”
March, 2014	Gunion Fest, Davis, CA, “Precision Higgs and Future Colliders”
March, 2014	Bay Area Particle Physics Seminar, San Francisco, CA, “Decoupling and Alignment in Light of the Higgs Data”
November, 2013	2013 International Workshop on Future Linear Colliders (LCWS 2013), Tokyo, Japan, “Higgs/EWSB Working Group Summary”
November, 2013	2013 Inter-Academy Seoul Science Forum, Seoul, South Korea, “The Higgs Boson: Past, Present and Future”
September, 2013	Higgs Days at Santander 2013, Santander, Spain, “2HDM Theory and a strategy for benchmarks”
September, 2013	Scalars 2013, Warsaw, Poland, “Higgs Physics at the ILC”
July, 2013	Higgs Hunting 2013, Orsay, France, “Higgs physics—approaching the decoupling limit”
July, 2013	LHC—The First Part of the Journey, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, “Decoupling and the MSSM Higgs Mass”
July, 2013	Snowmass Energy Frontier Workshop, University of Washington, Seattle, WA, “BSM Higgs Physics at the ILC”
June, 2013	PDG Workshop on Searches, Lawrence Berkeley National Laboratory, Berkeley, CA, “Supersymmetry Theory Review”
May, 2013	Planck 2013: <i>From the Planck scale to the electroweak scale</i> , Bonn, Germany, “The MSSM Higgs Mass Revisited”
April, 2013	The LHC Higgs Signal: Characterization, Interpretation and BSM Model Implications, Davis, CA, “2HDM Benchmarks for LHC Higgs Studies”
March, 2013	Aspen 2013 Winter Conference— <i>Higgs Quo Vadis</i> , Aspen Center for Physics, Aspen, CO, “A Higgs Hunter’s Perspective”
February, 2013	Higgs as a Probe of New Physics 2013 (HPNP2013), University of Toyama, Japan, “Alternative futures for the Higgs data: are we approaching or receding from the decoupling limit?”
January, 2013	The Higgs Symposium, The Higgs Centre for Theoretical Physics, University of Edinburgh, “A Higgs Hunter’s Perspective”
December, 2012	KITP Miniprogram: Higgs Identification, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, “Workshop Summary: Revisiting the Higgs Wishlist”
December, 2012	West Coast LHC Theory Meeting: Higgs and More at the LHC, University of California, Riverside, “Mass-Degenerate-Higgs Hunters Explore the Two-Higgs-Doublet Model”

October, 2012	ATLAS Analysis Jamboree on Higgs Searches, Berkeley, CA, “The Two-Higgs Doublet Model in Theory and Practice”
September, 2012	Higgs Days at Santander 2012, IFCA (Instituto de Fisica de Cantabria), Santander, Cantabria, Spain, “Degenerate Higgs hunters and the $\gamma\gamma$ excess”
August, 2012	Workshop on Multi-Higgs Models, Complexo Interdisciplinar da UL, Lisbon, Portugal, “Necessary Conditions for Spontaneous CP Violation”
July, 2012	40th SLAC Summer Institute, <i>The Electroweak Scale: Unraveling the Mysteries at the LHC</i> , “EWSB Basics”
July, 2012	LHC Theory Workshop, University of Melbourne, “What can the LHC Higgs data teach us about the Two-Higgs-Doublet Model?”
May, 2012	The Next Stretch of the Higgs Magnificent Mile Workshop, Northwestern University, Chicago campus, “Theoretical motivations for a Higgs factory”
December, 2011	Annual United Kingdom Theory Meeting, IPPP, University of Durham, “Higgs and SUSY”
October, 2011	Berkeley workshop on searches for supersymmetry at the LHC, “Theoretical Aspects of Higgs Physics”
September, 2011	International Workshop on Future Linear Colliders (LCWS11), “A Framework for Precision 2HDM studies at the ILC/CLIC”
September, 2011	IDPASC Higgs School, Foz do Arelho, Portugal, “Extending the Standard Model Higgs Sector: Two Higgs doublets and the MSSM” (2 lectures)
September, 2011	19th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY-11), “Higgs: where are we now?”
August, 2011	Scalars 2011 Conference, Warsaw, Poland, “Basis independent methods for the Two-Higgs Doublet Model”
August, 2011	CERN TH-LPCC Summer Institute on LHC Physics, “SUSY Monojets and Precision Coupling Determinations”
May, 2011	Implications of EWSB Workshop, University of Wisconsin at Madison, “What’s so special about the MSSM Higgs sector?”
December, 2010	4th Annual Workshop of the Helmholtz Alliance “Physics at the Terascale,” Dresden, Germany, “Status and prospects for a Higgs boson discovery”
October, 2010	Higgs Days at Santander 2010, Santander, Spain, “An Introduction to Higgs Boson Theory”
October, 2010	2nd Bethe Center Workshop: Cosmology meets Particle Physics Bad Honnef, Germany, “Prospects for Higgs Physics at the LHC”
August, 2010	The Pre-18th International Conference on Supersymmetry and Unification of Fundamental Interactions, Bonn, Germany, “Two-component Spinor Formalism: practical methods for treating Majorana fermions”
July, 2010	PASCOS-2010, Valencia, Spain, “Higgs Phenomenology at the LHC”
May, 2010	MCTP Symposium on Higgs Boson Physics, “Custodial Symmetry Breaking in the two Higgs doublet model”

January, 2010	Zurich conference in celebration of Daniel Wyler’s 60th birthday: The New, the Rare and the Beautiful, “Radiative Neutralino Decay—21 Years Later”
January, 2010	Nordic Conference in Particle Physics, Spaaatind, Norway, “Two-component Spinor Formalism: practical methods for treating Majorana fermions”
January, 2010	Nordic Conference in Particle Physics, Spaaatind, Norway, “Introduction to Electroweak Symmetry Breaking” (2 lectures)
September, 2009	DESY Theory Workshop, “Electroweak Symmetry Breaking”
September, 2009	Workshop on Multi-Higgs Models, Lisbon, Portugal, “Custodial Symmetry Breaking in the Two-Higgs-Doublet Model”
August, 2009	CERN Theory Institute, “The Pseudo-Nambu Goldstone Boson of Metastable SUSY-Violation”
June, 2009	The 17th International Conference on Supersymmetry and the Unification of Fundamental Interactions (SUSY-09), “The Pseudo-Nambu Goldstone Boson of Metastable SUSY-Violation”
April, 2009	International Workshop on Supersymmetry and Supersymmetry Breaking, IPPP, Durham, England, “The Pseudo-Nambu Goldstone Boson of Metastable SUSY-Violation”
October, 2008	Augusto Barroso Fest, Lisbon, Portugal, “The Two-Higgs-Doublet Model: Past, Present and Future”
May, 2008	PLANCK-08 meeting: from the Planck scale to the electroweak scale, “The Wrong-Higgs Couplings of the MSSM”
October, 2007	American Linear Collider Physics Group (ALCPG) Workshop 2007, “The ILC Physics Menu—500 GeV and 1 TeV”
August, 2007	CERN Theory BSM Institute, New Physics and the LHC, “Sneutrino mixing phenomena in the seesaw-extended MSSM”
April, 2007	Workshop on the LHC Early Phase for the ILC, Fermilab, Batavia, IL, “Report of the Higgs Working Group”
January, 2007	Kane Symposium (in honor of Gordon Kane’s 70th Birthday), “The Two Higgs Doublet Model: Past, Present and Future”
August, 2006	Particle Theory in Anticipation of the LHC—a workshop at the Aspen Center for Physics, Aspen, CO, “Two-Higgs Physics at Future Colliders”
July, 2006	Vancouver Linear Collider Workshop (VLCW-06), University of British Columbia, Vancouver, BC Canada, “A Model Independent Approach to Two-Higgs Doublet Model Physics”
July, 2005	The Pre-13th International Conference on Supersymmetry and Unification of Fundamental Interactions, IPPP, Durham, England, “Practical methods for treating Majorana fermions”
May, 2005	Frontiers in Contemporary Physics III, Vanderbilt University, Nashville, TN, “Linear Collider Physics: Theory and Phenomenology” (2 lectures)
March, 2005	3rd Workshop on CP Studies and Non-Standard Higgs Physics (CP-NSH), SLAC, Stanford, CA, “Basis-Independent Description of CP-Violation in the Two-Higgs-Doublet Model”

February, 2005	Aspen Winter Conference: The Highest Energy Physics, Aspen, CO, “Opportunities for Discovery at the International Linear Collider (ILC)”
August, 2004	Paul Scherrer Institute ZuoZ Summer School on Particle Physics, ZuoZ, Switzerland, “Introduction to Supersymmetry” (5 lectures)
June, 2004	Theoretical Advanced Study Institute, Boulder, CO, “Practical Supersymmetry: Four Introductory Lectures” (4 lectures)
May, 2004	PLANCK-04, The 7th European Meeting on Physics From the Planck Scale to the Electroweak Scale, “A New Look at the Two-Higgs-Doublet Model”
April, 2004	International Conference on Linear Colliders LCWS-04, Paris, France, “Higgs Theory—A Brief Overview”
January, 2004	ALCPG 2004 Winter Workshop, SLAC, “Higgs Working Group Summary”
October, 2003	Second Workshop on the Discovery Potential of an Asymmetric $B$ Factory at $10^{36}$ Luminosity, SLAC, “Exploring Supersymmetry with Precision $B$ Physics”
May, 2003	2003 PHENO Symposium, Madison, WI, “PHENO-2003 Conference Summary”
February, 2003	LHC/LC Study Group Meeting, CERN, “The approach to the decoupling limit in Two-Higgs-Doublet Models”
September, 2002	6th International Symposium on Radiative Corrections: Application of Quantum Field Theory to Phenomenology (RADCOR-2002) and 6th Zeuthen Workshop on Elementary Particle Theory: Loops and Legs 2002, Kloster Banz, Germany, “Decoupling and the radiatively-corrected MSSM Higgs sector”
September, 2002	Summer School for High Energy Physics, Maria Laach, Eifel, Germany, “Higgs Physics” (four lectures)
June, 2002	10th International Conference on Supersymmetries in Physics (SUSY-02), “Higgs theory and phenomenology in the Standard Model and MSSM”
January, 2002	The 18th International Workshop on Weak Interactions and Neutrinos (WIN-02), “MSSM Higgs Phenomenology in the Decoupling Limit”
July, 2001	Workshop on the Future of High Energy Physics (Snowmass 2001) “Introduction to Electroweak Symmetry Breaking”
June, 2001	ICTP Summer School in High Energy Physics and Cosmology, Trieste, Italy, “Introduction to Supersymmetry” (four lectures)
May, 2001	IPPP Conference on Phenomenology of Beyond the Standard Model, Durham, England, “Precision Higgs Physics”
October, 2000	International Symposium Celebrating 30 Years of Supersymmetry, Minneapolis, Minnesota, “Low-energy supersymmetry and its phenomenology”
June, 2000	8th International Conference on Supersymmetries in Physics (SUSY-2K), CERN, “Neutrino and Sneutrino Masses and Mixing in R-Parity-Violating Supersymmetry”

March, 2000	LBL Linear Collider Workshop, Berkeley, “Higgs Physics at Future Colliders: Summary and Issues for the Future”
June, 1999	7th International Conference on Supersymmetries in Physics (SUSY 99), Fermilab, “Theory and phenomenology of the MSSM Higgs sector at the upgraded Tevatron”
April, 1999	Phenomenology for the Third Millennium (Pheno ’99 Symposium), University of Wisconsin, “Recent Developments in Higgs Physics”
November, 1998	Physics at Run II: Workshop on Supersymmetry/Higgs Summary Meeting, Fermilab, “Higgs Working Group Report I”
September, 1998	4th International Symposium on Radiative Corrections (RADCOR 98), Universitat Autònoma de Barcelona, “How well can we predict the mass of the Higgs Boson of the Minimal Supersymmetric Model?”
July, 1998	6th International Conference on Supersymmetries in Physics (SUSY 98), Oxford University, “(S)neutrino Masses and Mixing in Low-Energy Supersymmetry”
May, 1998	First European Meeting <i>From the Planck Scale to the Electroweak Scale</i> , Kazimierz, Poland, “Higgs Physics at the Tevatron”
May, 1998	General Meeting of the Supersymmetry/Higgs Physics at the Tevatron Run-II Workshop, “Report of the Higgs Group”
November, 1997	Workshop on Physics at the First Muon Collider, Fermilab, “The Higgs Sector of Low-Energy Supersymmetry”
September, 1997	2nd International Workshop on Electron-Electron Interactions at TeV Energies ( $e^-e^-$ 97), “Higgs Physics at $e^-e^-$ Colliders”
June, 1997	ICTP Summer School in High Energy Physics and Cosmology, Trieste, Italy, “The Standard Model—Four Introductory Lectures” (four lectures)
May, 1997	5th International Conference on Supersymmetries in Physics (SUSY 97), “The Status of the Minimal Supersymmetric Standard Model and Beyond”
April, 1997	3rd Warsaw Workshop on Physics from the Planck Scale to the Electroweak Scale, Warsaw, Poland, “Sneutrino Mixing Phenomena”
December, 1996	Rutherford Laboratory Christmas Meeting, “Review of Higgs Physics and Phenomenology”
December, 1996	Ringberg Workshop on the Higgs Puzzle—What can We Learn from LEP2, LHC, NLC, and FMC?, “Future Directions in Higgs Phenomenology”
July, 1996	Snowmass Workshop on New Directions for High Energy Physics, “Light Higgs Working Group Summary”
December, 1995	Workshop on Supersymmetric Phenomena and Supersymmetric Grand Unified Theories, Institute for Theoretical Physics, Santa Barbara, “Low-Energy Supersymmetry, Precision Electroweak Data, and the Top Quark Mass”
September, 1995	Workshop on Unification, Gran Sasso Laboratory, Italy, “A Four-Generation Low-Energy Supersymmetric Model with a Light Top Quark Mass”

July, 1995	European Physical Society Meeting, Brussels, Belgium, “Supersymmetric Hints from Precision Electroweak Data?”
July, 1995	European Physical Society Meeting, Brussels, Belgium, “Recent Refinements in Higgs Physics”
June, 1995	Workshop on Particle Physics, Valencia, Spain, “Challenges for Low-Energy Supersymmetry”
June, 1995	Workshop on Physics at Future $e^+e^-$ Linear Colliders, Gran Sasso Laboratory, Italy, “Physics Beyond the Standard Model at Future Colliders”
March, 1995	German Physical Society Meeting, Karlsruhe, Germany, “Physics Beyond the Standard Model”
March, 1995	XXXth Rencontres de Moriond: Electroweak Interactions and Unified Theories, “Is $m_t \approx m_W$ Ruled Out?”
February, 1995	Workshop on Electroweak Physics, Ringberg Castle, Germany, “The Challenge of the Non-Minimal Higgs Sector for Future $e^+e^-$ Colliders”
December, 1994	Beyond the Standard Model IV Workshop, Granlibakken, Lake Tahoe, CA, “Quest for the Non-Minimal Higgs Sector”
September, 1994	Supersymmetry Workshop, DESY, Hamburg, Germany, “The MSSM Higgs Sector—Can We Distinguish it from the Standard Model”
September, 1994	Workshop on Supersymmetry, Institute for Theoretical Physics, University of Warsaw, Poland, “If the Higgs Sector is Non-Minimal, How Will We Know?”
August, 1994	Report on the DPF Long Range Planning Study, DPF Meeting, Albuquerque, NM, “Electroweak Symmetry Breaking and Beyond the Standard Model”
July, 1994	Workshop on Electroweak Physics, Eötvös University, Budapest, Hungary, “Decoupling of the Non-Minimal Higgs Sector and Implications for Future Searches”
July, 1994	Eötvös Summer School Graduate Courses, Eötvös University, Budapest, Hungary, “The Physics of Electroweak Symmetry Breaking” (three lectures)
August, 1993	XXI SLAC Summer Institute on Particle Physics, Stanford, CA, “Spin Structure at Future High-Energy Colliders” (three lectures)
April, 1993	Workshop on Recent Advances in the Superworld, Houston, TX, “Low-Energy Supersymmetric Basics” (or “The Supersymmetric Top-Ten Lists”)
March, 1993	SUSY-93 Workshop, Boston, MA, “Phenomenology of Gluino Searches at the Tevatron”
October, 1992	23rd Workshop of the INFN Eloisatron Project—The Decay Properties of Supersymmetric Particles, Erice (Trapani), Italy, “The Higgs Sector in the Minimal Supersymmetric Model”
June, 1992	Theoretical Advanced Study Institute, Boulder, CO, “Three Lectures on Low-Energy Supersymmetry”
April, 1992	The SSC Physics Symposium, Madison, WI, “Radiatively-Corrected Higgs Sector of the Minimal Supersymmetric Model”

January, 1992	Aspen Winter Conference in Elementary Particle Physics, “Effects of Radiative Corrections to the Higgs Sector of the Minimal Supersymmetric Model”
November, 1991	International Workshop on Electroweak Symmetry Breaking, Hiroshima, Japan, “The Higgs Sector in the Minimal Supersymmetric Model: Radiative Corrections and Their Implications”
September, 1991	Workshop of Physics and Experiments with Linear Colliders, Saariselkä, Finland, “Higgs Theory and Phenomenology at Future $e^+e^-$ Linear Colliders”
February, 1991	Workshop on Precision Electroweak Measurements, Institute for Theoretical Physics, Santa Barbara, CA, “Supersymmetry Effects on Electroweak Predictions”
August, 1990	Mt. Sorak Symposium on Theoretical Physics, South Korea, “Two Lectures on Higgs Physics”
June, 1990	Theoretical Advanced Study Institute, Boulder, CO, “Six Lectures on Electroweak Symmetry Breaking”
March, 1990	Workshop on Thinking About the Top Quark, Institute for Theoretical Physics, Santa Barbara, CA, “Implications of a Large Top Quark Mass for Higgs Boson Phenomenology”
July, 1989	8th INFN Eloisatron Project Workshop—Higgs Particles: Physics Issues and Experimental Searches in High Energy Collisions, Erice, Italy, “Nonminimal Higgs Bosons: Theory and Phenomenology”
May, 1989	Workshop on the Tau-Charm Factory, SLAC, “Can the Higgs Sector be Probed in Tau-Decay?”
January, 1989	Workshop on High Energy Physics Phenomenology, Bombay, India, “Minimal and Nonminimal Higgs Bosons: Two Introductory Lectures”, and “Higgs Boson Hunting: Report of the Higgs Boson Working Group”
July, 1988	Conference on Phenomenology in High Energy Physics, Trieste, Italy, “Supersymmetry Signals at Present and Future Colliders”
June, 1987	European Physical Society Meeting, Uppsala, Sweden, “Search for Supersymmetry at Future Colliders”
May, 1986	Madison Workshop on Physics Simulations at High Energy, “Distribution of Heavy Particles in the Proton”
August, 1985	Oregon Workshop on Super High Energy Physics, “Beyond the Standard Model at the SSC”
June, 1985	Workshop on Tests of Electroweak Theories, Trieste, Italy, “Signatures of Supersymmetry at the CERN Collider”
May, 1985	Madison Workshop on New Particles, “Signatures of Supersymmetry at the CERN Collider”
November, 1984	Annual Meeting of the Division of Particles and Fields of the American Physical Society, Santa Fe, NM, “Implications for Supersymmetry of the CERN Monojets”
June-July, 1984	Snowmass Workshop on the Superconducting Supercollider, “Report of the New $W$ ’s and $Z$ ’s Working Group”
August, 1983	Gordon Conference, “New Trends in Electroweak Physics”

March, 1982	Rencontres de Moriond, “Are Supersymmetry and Grand Unification Compatible?”
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## Outside Committees and Consulting

2015–present	Member of the International Advisory Committee of the Higgs Hunting Conference, Orsay, France
2013–present	Member of the International Advisory Committee of the International Workshop on Higgs as a Probe of New Physics (HPNP)
2013–present	Honorary Member, Aspen Center for Physics
2009–present	Member, International Advisory Committee, Workshop on Multi-Higgs Models, Lisbon, Portugal
2007–present	Member of the Particle Data Group
1997–2025	Member of the Board of Editors, <i>European Physical Journal C</i>
2022–2023	Member of the Committee of Visitors (COV) for the Division of Physics at the National Science Foundation
2022	Member of the Aspen Center for Physics Admissions Committee
2021	Mail-in reviewer for research grant proposals to the FY2021 Department of Energy Comparative Review of the University HEP Theory Program
2019	Member, National Science Foundation High Energy Physics Theory and Cosmology Panel
2001–2019	Member of the International Advisory Board of the International Symposium on Radiative Corrections (RADCOR)
2018	Mail-in reviewer for theoretical HEP proposals to the FY2018 DOE Office of Science Early Career Research Program
2018	Member of the Aspen Center for Physics Presidential Search Committee
2017	Member of the American Physical Society J.J. Sakurai Prize Selection Committee
2016–2017	Member of the Division of Particles and Fields Mentoring Award Selection Committee
2016	Chair of the Aspen Center for Physics Presidential Search Committee
2015–2018	Member of the Advisory Committee to the Fermilab Distinguished Scholars Program (FDSP)
2015	Member of the Advisory Committee to HEPAP to formulate a charge to the Subcommittee on Respective Roles and Responsibilities (RR&R)
2015	Member, Department of Energy FY16 University Theory Program Comparative Review Panel
2015	Member, National Science Foundation High Energy Physics Theory and Cosmology Panel
2014	Member, Department of Energy FY15 University Theory Program Comparative Review Panel
2014	Member of the P5 Rollout Campaign Committee
2013–2018	Member of the Dean’s Advisory Committee to evaluate the Laboratory for Nuclear Science at MIT



2013–2015	Elected Secretary/Treasurer of the Division of Particles and Fields of the American Physical Society
2013	Member, Colloquium Committee, Aspen Center for Physics
2011–2012	Member, Admissions Committee, Aspen Center for Physics
2011	Member, Program Committee for the International Workshop on Future Linear Colliders (LCWS11)
2011	Member, International Advisory Committee for the SUSY 2011 Conference
2010–2011	Member, Executive Committee of the Trustees, Aspen Center for Physics
2010	Member, Local Organizing Committee for the SUSY-10 Conference
2010	Member, National Science Foundation High Energy Physics Theory and Cosmology Panel
2009–2010	Member, Program Committee, Aspen Center for Physics
2008–2009	Member, Nominations Committee, Aspen Center for Physics
2007–2008	Member, Program Committee, Aspen Center for Physics
2007	Member, Program Committee, American Linear Collider Physics Group Workshop 2007 (ALCPG07)
2007	Candidate for Vice-Chair of the Division of Particles and Fields
2006–2008	Member, Admissions Committee, Aspen Center for Physics
2006–2008	Member, Nominations Committee, Aspen Center for Physics
2006–2007	Member, Admissions Committee, Aspen Center for Physics
2005–2011	Trustee, Aspen Center for Physics
2006	Member, Department of Energy Panel to Review Outstanding Junior Investigator (OJI) grants in particle physics
2006	Chair of the American Physical Society J.J. Sakurai Prize Selection Committee
2005–2010	Member, Finance Committee, Aspen Center for Physics
2005–2006	Member, Program Committee, Aspen Center for Physics
2005	Vice-chair of the American Physical Society J.J. Sakurai Prize Selection Committee
2004–2005	Member, Nominations Committee, Aspen Center for Physics
2002–2004	Member, Editorial Board of Physical Review D
2002–2004	elected Member, Executive Committee of the Division of Particles and Fields of the American Physical Society
2004	Chair, Program Committee, Aspen Center for Physics
2004	Member, Admissions Committee, Aspen Center for Physics
2003	Chair, Public Lecture Series Committee, Aspen Center for Physics
2003	Member, Program Committee, Aspen Center for Physics
2001–2002	Member, International Scientific Advisory Committee for the SUSY-07 Conference
2001–2002	Member, Tenure Review Committee, Stanford Linear Accelerator Center
2001	Member, NSF Panel to Review Theoretical Physics Grants

2000–2001	Member, Computer Committee, Aspen Center for Physics
2000–2001	Member, Faculty Search Committee, Stanford Linear Accelerator Center
1999	Chair, Nominations Committee, Aspen Center for Physics
1998–2001	Member, Finance Committee, Aspen Center for Physics
1998–2001	Corporate Secretary, Aspen Center for Physics
1997–1998	Aspen Winter Conference Committee, Aspen Center for Physics
1996–2000	Member, SLAC Experimental Program Advisory Committee
1996–1997	Scientific Secretary, Aspen Center for Physics
1995–1996	Assistant Scientific Secretary, Aspen Center for Physics
1994–1997	Member, Board of Editors, <i>Zeitschrift für Physik C</i>
1994–1995	Aspen Winter Conference Committee, Aspen Center for Physics
1993–1995	Computing Committee, Aspen Center for Physics
1993–2013	General Member, Aspen Center for Physics
1992–2006	Outside consultant to the Particle Data Group
1989–1992	Divisional Associate Editor of <i>Physical Review Letters</i>
December, 1989	Member of a National Science Foundation Panel to select recipients of the Presidential Young Investigator Awards in Physics

### Visiting Appointments

November, 2025	Center for Cosmology and Particle Physics, New York University
June–July, 2025	Aspen Center for Physics
June, 2025	Munich Institute for Astro-, Particle and BioPhysics (MIAPbP)
May, 2025	Bethe Center for Theoretical Physics, Bonn
May, 2025	Center for Cosmology and Particle Physics, New York University
April, 2025	Dublin Institute for Advanced Study, Dublin, Ireland
January, 2025	Kavli Institute for Theoretical Physics, Santa Barbara
October, 2024	Bethe Center for Theoretical Physics, Bonn
October, 2024	Center for Cosmology and Particle Physics, New York University
September, 2024	Instituto Superior Técnico in Lisbon, Portugal
July, 2024	Aspen Center for Physics
June, 2024	CERN Theory Group
July–August, 2023	Department of Applied Mathematics and Theoretical Physics, University of Cambridge
July, 2023	Instituto Superior Técnico in Lisbon, Portugal
June, 2023	Aspen Center for Physics
August, 2022	Aspen Center for Physics
July–August, 2021	Aspen Center for Physics
March, 2020	Center for Cosmology and Particle Physics, New York University
Feb.–March, 2020	Bethe Center for Theoretical Physics, Bonn

August–Sept., 2019	Aspen Center for Physics
July–August, 2019	Department of Applied Mathematics and Theoretical Physics, University of Cambridge
June, 2019	Instituto Superior Técnico in Lisbon, Portugal
June, 2019	Munich Institute for Astro- and Particle Physics (MIAPP)
Nov.–Dec., 2018	Bethe Center for Theoretical Physics, Bonn
August–Oct., 2018	Galileo Galilei Institute for Theoretical Physics, Florence
July–August, 2018	Aspen Center for Physics
July, 2018	CERN Theory Group
May, 2018	Bethe Center for Theoretical Physics, Bonn
September, 2017	Galileo Galilei Institute for Theoretical Physics, Florence
August–Sept., 2017	Bethe Center for Theoretical Physics, Bonn
July–August, 2017	Aspen Center for Physics
December, 2016	Helsinki Institute of Physics
August, 2016	Aspen Center for Physics
July–August, 2016	CERN Theory Group
July, 2016	Bethe Center for Theoretical Physics, Bonn
March–June, 2016	Kavli Institute for Theoretical Physics, Santa Barbara
September, 2015	Galileo Galilei Institute for Theoretical Physics, Florence
July–August, 2015	Aspen Center for Physics
July, 2015	CERN Theory Group
June, 2015	Bethe Center for Theoretical Physics, Bonn
September, 2014	Bethe Center for Theoretical Physics, Bonn
August, 2014	Aspen Center for Physics
July, 2014	Mainz Institute for Theoretical Physics (MITP), Mainz
June, 2014	Bethe Center for Theoretical Physics, Bonn
Jan.–June, 2014	Lawrence Berkeley National Laboratory, Theoretical Physics Group and Particle Data Group
Sept.–Dec., 2013	Lawrence Berkeley National Laboratory, Particle Data Group
September, 2013	Bethe Center for Theoretical Physics, Bonn
August, 2013	Aspen Center for Physics
December, 2012	Kavli Institute for Theoretical Physics, Santa Barbara
September, 2012	Bethe Center for Theoretical Physics, Bonn
August, 2012	Aspen Center for Physics
September, 2011	Bethe Center for Theoretical Physics, Bonn
August, 2011	CERN Theory Group
June–July, 2011	Aspen Center for Physics
Aug.–Dec., 2010	Bethe Center for Theoretical Physics, Bonn
June–July, 2010	Aspen Center for Physics

September, 2009	Bethe Center for Theoretical Physics, Bonn
August, 2009	CERN Theory Group
July, 2009	Aspen Center for Physics
November, 2008	Bethe Center for Theoretical Physics, Bonn
July–August, 2008	Aspen Center for Physics
June–July, 2008	Rheinische Friedrich-Wilhelms-Universität Bonn
March–April, 2008	Kavli Institute for Theoretical Physics, Santa Barbara
August, 2007	CERN Theory Group
July, 2007	Aspen Center for Physics
Sept.–Nov., 2006	Rheinische Friedrich-Wilhelms-Universität Bonn
August, 2006	Aspen Center for Physics
March, 2006	Rheinische Friedrich-Wilhelms-Universität Bonn
August, 2005	Aspen Center for Physics
July, 2005	IPPP, Durham, England
June, 2005	Rheinische Friedrich-Wilhelms-Universität Bonn
August, 2004	CERN Theory Group
June–July, 2004	Aspen Center for Physics
June–July, 2003	Aspen Center for Physics
Jan.–March, 2003	Institute for Particle Physics Phenomenology (IPPP), Durham, England
September, 2002	Rheinische Friedrich-Wilhelms-Universität Bonn
July–August, 2002	Aspen Center for Physics
June–July, 2002	CERN Theory Group
July, 2001	Aspen Center for Physics
June, 2001	Universidad Autónoma de Madrid
Feb.–Apr., 2001	Oxford University
Jan.–Feb., 2001	Rheinische Friedrich-Wilhelms-Universität Bonn
August, 2000	Aspen Center for Physics
July, 2000	CERN Theory Group
September, 1999	Rutherford Laboratory Theory Group
Aug.–Sept., 1999	CERN Theory Group
July, 1999	Aspen Center for Physics
Sept.–Dec., 1998	Fermilab Theory Group
August, 1998	CERN Theory Group
July, 1998	Rutherford Laboratory Theory Group
August, 1997	Aspen Center for Physics
June–July, 1997	CERN Theory Group
March, 1997	Consejo Superior de Investigaciones Científicas, Madrid
September, 1996	Max-Planck-Institut für Physik, Munich

August, 1996	CERN Theory Group
June–July, 1996	Aspen Center for Physics
September, 1995	Institute for Theoretical Physics, Univ. of California, Santa Barbara
April, 1995	Weizmann Institute, Rehovot, Israel
Jan.–Sept., 1995	Scientific Associate, CERN Theory Group
August, 1994	Aspen Center for Physics
Jan.–March, 1994	Institute for Theoretical Physics, Univ. of California, Santa Barbara
July, 1993	Aspen Center for Physics
July, 1992	Aspen Center for Physics
July–August, 1991	Aspen Center for Physics
September, 1990	CERN Theory Group
July, 1990	Aspen Center for Physics
March, 1990	Institute for Theoretical Physics, Univ. of California, Santa Barbara
August, 1989	Aspen Center for Physics
September, 1988	Laboratoire de Physique Mathématique, Université des Sciences et Techniques du Languedoc, Montpellier, France
May, 1988	Institute for Theoretical Physics, Univ. of California, Santa Barbara
June, 1987	Theoretische Physik, ETH Hönggerberg, Zurich, Switzerland
April–July, 1985	University of Oregon
1982–present	Visiting Physicist, Theory Group, Stanford Linear Accelerator Center

### **Panels and Working Groups**

2017	co-convener of the Higgs/EW/BSM session of the Americas Workshop on Linear Colliders 2017 (AWLC2017)
2015–2016	co-convener of the Higgs session of the KITP workshop, “Experimental Challenges for the LHC Run II”
2014	co-convener of the Higgs/Electroweak Symmetry Breaking Working Group, Americas Workshop on Linear Colliders (AWLC14)
2014	founding member of the Precision SUSY Higgs Mass Calculation Initiative
2013	co-convener of the Higgs/EWSB Working Group, International Conference on Future Linear Colliders (LCWS-13)
2007	co-convener of the Higgs Working Group for the Workshop on “The LHC early phase for the ILC”
2005–2006	co-convener of the CP violation in 2HDM working group, Workshop on CP Studies and Non-Standard Higgs Physics (CPNSH)
April, 2004	co-convener of the Higgs and Electroweak Symmetry Breaking Working Group, International Conference on Linear Colliders (LCWS-04)
2003–2004	co-editor of the LHC/ILC Study Group
2000–2004	co-convener of the Higgs Working Group, American Linear Collider Physics Group
July, 2001	co-convener of the Snowmass 2001 Working Group on Electroweak Symmetry Breaking

October, 1998	co-convener of the “Is it really top? Is it only top?” Discussion Group, Top-Quark Physics for Tevatron Run II Thinkshop
March–Dec., 1998	co-convener of the Higgs Working Group, Tevatron Run II Workshop
June–July, 1996	co-convener of the Light Higgs Boson Working Group, Snowmass Workshop on New Directions for High Energy Physics
1995	co-convener of the Higgs Boson Working Group, European Workshop on Future $e^+e^-$ Linear Colliders
1994–1995	co-convener of the <i>Electroweak Symmetry Breaking and Beyond the Standard Model Working Group</i> , for the DPF Long Range Planning Study
1990–1991	member of SLAC working group on the Next Linear Collider
January, 1989	co-leader of <i>Higgs Boson Working Group</i> at the Workshop on High Energy Physics Phenomenology, Tata Institute for Fundamental Research, Bombay, India
1987–1988	member of SLAC panel studying Opportunities and Requirements for Experimentation at a Very High-Energy $e^+e^-$ Collider
July, 1987	co-leader of <i>Non-minimal Higgs Boson Working Group</i> at the 1987 Berkeley Workshop on the SSC
March–Aug., 1985	leader of <i>Beyond the Standard Model Working Group</i> at the 1985 Oregon Workshop on Supercollider Physics
June–July, 1984	leader of <i>New W’s and Z’s Working Group</i> at the 1984 Snowmass Workshop on the SSC

## Conferences and Workshops Organized

2024–2025	Co-Chair of the 32nd International Conference on Supersymmetry and Unification of Fundamental Interactions: Theory meets Experiment (SUSY 2025), at UC Santa Cruz
2024–2025	Co-Chair of the Pre-SUSY 2025 Symposium on Supersymmetry and Unification of Fundamental Interactions at UC Santa Cruz
2022–2023	Chair of the Organizing Committee of the Marcela–Carlos Fest, a symposium in honor of the 60th birthdays of Marcela Carena and Carlos Wagner, to be held at the University of Chicago and Fermilab, May 28–30, 2023
2022–2023	Co-organizer of the Herbi Fest, a symposium in honor of the 60th birthday of Herbi Dreiner, to be held at the Bethe Center for Theoretical Physics in Bonn, Germany, March 27–28, 2023
2015	Chairman of the Pre-SUSY 2015 School on Supersymmetry and Unification of Fundamental Interactions at UC Davis
2015	Chairman of the SCIPP Reunion Theory Symposium
2014–2015	Member of the Local Organizing Committee of the 23rd International Conference on Supersymmetry and the Unification of Fundamental Interactions (SUSY 2015)
2014	co-convener of the Higgs Physics parallel sessions of the 37th International Conference on High Energy Physics (ICHEP-2014)
2013	Member, Local Organizing Committee, Meeting of the Division of Particles and Fields of the American Physical Society (DPF 2013)

2012	co-organizer of Higgs Identification, KITP Rapid Response workshop, December 10–21, 2012 in Santa Barbara, CA
2011	Member, Program Committee for the International Workshop on Future Linear Colliders (LCWS11)
2010	Member, Local Organizing Committee, The 18th International Conference on Supersymmetry and the Unification of Fundamental Interactions (SUSY-10)
2010	Chairman, West Coast LHC Theory meeting at UCSC, May 21, 2010
2007	Member, Program Committee, American Linear Collider Physics Group Workshop 2007 (ALCPG07)
January, 2007	Co-organizer of the Kane Symposium (in honor of Gordon Kane’s 70th Birthday), University of Michigan, Ann Arbor, MI, 19–20 January 2007
2006–2007	Member, Program Committee, Supersymmetry-2007 Conference, Karlsruhe, Germany
March, 2005	Co-chair of the Workshop on LHC/ILC Synergies, SLAC, Stanford, CA, 23 March 2005
2001–2002	Co-chair, Theoretical Advanced Study Institute (TASI-2002), Boulder, CO, 3–28 June 2002
2001–2002	Member, International Scientific Advisory Committee for the SUSY-02 Conference
July, 2001	Aspen Center for Physics, co-organizer of the Workshop on Electroweak Symmetry Breaking and TeV scale physics after LEP
1999–2000	Chairman, 5th International Symposium on Radiative Corrections (RADCOR 2000), Carmel, CA 11–15 September 2000
January, 1999	Co-chair, Parallel Session on Physics Beyond the Standard Model, DPF-99 Conference at UCLA
1998–1999	member, local organizing committee for the 1999 Lepton-Photon International Conference, Stanford University 9–14 August 1999
August, 1997	Aspen Center for Physics, co-organizer of the Workshop on New Physics at the Tevatron and LEP-2
1996–1997	member, International Scientific Advisory Committee for the SUSY-97 Conference
July–August, 1994	Aspen Center for Physics, co-organizer of the Workshop on Supersymmetry
February, 1994	Co-chairman of the Workshop on Electroweak Symmetry Breaking and TeV Scale Physics, held at the Institute for Theoretical Physics, Santa Barbara.
January, 1993	Aspen Winter Conference: Particle Physics from Supercolliders to the Planck Scale, Co-chairman of conference.
December, 1992	Workshop on Electroweak Symmetry Breaking at Colliding-Beam Facilities, Chairman of the workshop, held at U.C. Santa Cruz
July–August, 1991	Aspen Center for Physics, co-organizer of the Workshop on CP Violation and Heavy Flavor Physics
January, 1990	Meeting of the Division of Particles and Fields of the American Physical Society, Rice University, Houston, convener of Beyond the Standard Model mini-conference

August, 1988	24th International Conference on High Energy Physics, Munich, organizer of Beyond the Standard Model parallel session
January, 1988	U.C. Davis Workshop on Higgs Boson Physics, held at U.C. Davis, member of local organizing committee
June-July, 1986	Theoretical Advanced Study Institute, held at U.C. Santa Cruz, member of local organizing committee and editor of Proceedings
August, 1985	Gordon Conference on Particle Physics, organizer of the Electroweak Theory Session
August, 1984	Physics in Collision IV, held at U.C. Santa Cruz, member of local organizing committee
March, 1983	Theoretical Symposium on Intense Sources of High Energy Physics, held at U.C. Santa Cruz, member of local organizing committee and co-editor of Proceedings

## SUMMER SCHOOL LECTURES

July, 2023	Pre-SUSY 2023	(2 Lectures)
August, 2021	49th SLAC Summer Institute, “The Higgs State Fair”	(1 Lecture)
August 2019	2019 Sorak Symposium	(2 Lectures)
August, 2018	46th SLAC Summer Institute, “Standard Model at 50”	(1 Lecture)
July, 2016	Pre-SUSY 2016	(3 Lectures)
June, 2016	Theoretical Advanced Study Institute, Boulder, Colorado	(4 Lectures)
July, 2012	40th SLAC Summer Institute, “The Electroweak Scale”	(2 Lectures)
September 2011	IDPASC Higgs School, Foz do Arelho, Portugal,	(2 Lectures)
August, 2008	CERN-Fermilab Hadron Collider Physics Summer School	(2 Lectures)
August, 2004	PSI ZuoZ Summer School on Particle Physics, ZuoZ, Switzerland	(5 Lectures)
June, 2004	Theoretical Advanced Study Institute, Boulder, Colorado	(4 Lectures)
September, 2002	Herbstschule für Hochenergiephysik Maria Laach	(4 Lectures)
June, 2001	Trieste Summer School on High Energy Physics	(4 Lectures)
November, 1999	SCIPP Outreach Physics Workshop	(1 Lecture)
June, 1997	Trieste Summer School in High Energy Physics and Cosmology	(4 Lectures)
July, 1995	Institut für Theoretische Teilchenphysik, Karlsruhe, Germany	(3 Lectures)
July, 1994	Eötvös Summer School Graduate Courses, Budapest, Hungary	(3 Lectures)
August, 1993	XXI SLAC Summer Institute on Particle Physics	(3 Lectures)
June, 1992	Theoretical Advanced Study Institute, Boulder, Colorado	(3 Lectures)
August, 1990	Mt. Sorak Summer School on Theoretical Physics, South Korea	(2 Lectures)
June, 1990	Theoretical Advanced Study Institute, Boulder, Colorado	(6 Lectures)

## Referee

2011–present	Peer-review Referee for the Israel Science Foundation grant proposals.
1985–present	Peer-review Referee for Department of Energy grant proposals.
1984–present	Peer-review Referee for National Science Foundation grant proposals.



1980–present      Peer-review referee for professional journals: *Physical Review Letters*, *Physical Review D*, *Physics Letters B*, *Nuclear Physics B*, *Physics Reports*, *International Journal of Modern Physics A*, *Modern Physics Letters A*, *Zeitschrift für Physik C*, *European Physical Journal C*, *JHEP*, *SciPost Physics*, *Proceedings of Science*, and *Europhysics Letters*.

## UNPUBLISHED NOTES AND OTHER WRITINGS

Note: The unpublished notes and other writings listed below were prepared either as supplements to my teaching or as a set of notes used in research projects. Links to these notes can be found on my UCSC Academic webpage, <http://scipp.ucsc.edu/~haber/#sec6>.

1. *The Hamiltonian of a free Majorana fermion field*
2. *Acceleration and Force in Special Relativity*
3. *Thomas Precession and the BMT equation*
4. *The tensor spherical harmonics*
5. *Evaluating integrals arising from Barr-Zee diagrams*
6. *Exponentiating the Lie algebra of the Lorentz group*
7. *Rational Approximations to  $\ln 2$*
8. *Generalized Functions for Physics*
9. *Evaluating the finite part of the Passarino-Veltman function  $B_0(p^2; m_1^2, m_2^2)$*
10. *Evaluating the one-loop function arising in  $h \rightarrow \gamma\gamma$*
11. *Analytic formulae for the Feynman propagator in coordinate space*
12. *A Tale of Three Diagonalizations*
13. *Notes on the Matrix Exponential and Logarithm*
14. *The characteristic polynomial*
15. *What is the group of conjugate symplectic matrices?*
16. *Parameterization of real orthogonal antisymmetric matrices*
17. *Toward a set of 2HDM benchmarks*
18. *The eigenvalues of the quadratic Casimir operator and second-order indices of a simple Lie algebra*
19. *Notes on basis changes and matrix diagonalization*

- 20. *Notes on the complex inverse trigonometric and hyperbolic functions and their principal values*
- 21. *Electron wave function and mass renormalization in QED*
- 22. *Proof of a trace inequality in matrix algebra*
- 23. *Notes on the spontaneous breaking of  $SU(N)$  and  $SO(N)$  via a second-rank tensor multiplet*
- 24. *Notes on antisymmetric matrices and the pfaffian*
- 25. *Complex representation of scalar fields and the embedding of  $U(n)$  in  $SO(2n)$*
- 26. *The probability that a product of random numbers is less than a fixed constant*
- 27. *Massless Majorana and Weyl fermions cannot be distinguished*

Howard E. Haber  
Santa Cruz Institute for Particle Physics (SCIPP)  
UC Santa Cruz Department of Physics

## PUBLICATION LIST

### Books

1. *From Spinors to Supersymmetry*, H.K. Dreiner, H.E. Haber, and S.P. Martin (Cambridge University Press, Cambridge, UK, 2023).
2. *The Higgs Hunter's Guide*, J.F. Gunion, H.E. Haber, G.L. Kane, and S. Dawson, Frontiers in Physics Lecture Note Series #80, (Addison-Wesley Publishing Company, Redwood City, CA, 1990); paperback edition: (Westview Press, Boulder, CO, 2000).

### Edited Books

1. *CPNSH: Workshop on CP Studies and Non-Standard Higgs Physics, May 2004—December 2005*, edited by S. Kraml *et al.*, CERN Yellow Book, CERN-2006-009 (2006).
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