GORDON L. KANE
Distinguished University Professor of Physics
Director Emeritus, Michigan Center for Theoretical Physics
Adjunct Professor, School of Art and Design

Education:

1963 Ph.D. University of Illinois

Professional Experience:

1963-65 Research Associate, Johns Hopkins University
1965-69 Assistant Professor, University of Michigan
1969-75 Associate Professor, University of Michigan
1975- Professor, University of Michigan
1986 Scientific Associate, CERN (Jan. - Aug.)

Selected Awards, Honors, and Services:

2011 Awarded Julius Edgar Lilienfeld Prize of the American Physical Society
2011 Appointed Victor Weisskopf Distinguished University Professor of Physics
2010 Invited participant, Strings at the LHC and in the early universe, by invitation only, KITP
2009 Member, triennial Committee of Visitors, National Science Foundation, Division of physical and mathematical sciences; Chair, theoretical physics subpanel
2008 Member, Provost's Council on Student Honors, University of Michigan (has responsibility for Rhodes Scholarships, Mitchell Fellowships, etc)
2008 Invited to give Lewiner Lectures, Technion, Tel-Aviv, Israel
2008 Organizer, Cook's Branch meeting on dark matter, LHC, and string phenomenology
2008 Reappointed Adjunct Professor, School of Art and Design
2007 Invited visiting member, Institute for Advanced Study, Princeton, Sept – Dec 2007
2007 Member, International Organizing Committee, Mitchell Symposium on Cosmology and Particle Physics; International String Phenomenology Conference, Stockholm
2007 European Research Council Referee, 2007-2013
2006 Co-Organizer, String phenomenology Program, Kavli Institute for Theoretical Physics, Santa Barbara, CA Aug-Dec 2006.
2006 Invited Participant, "New Directions Beyond the Standard Model in Field and String Theory", Galileo Institute, Florence May 2006.
2006 Invited Participant, "String Vacua and the Landscape", International Center for Theoretical Physics, Trieste, May-June 2006.
2005 PPARC International Review Panel, Institute of Phenomenological Particle Physics, Durham, England
2005 Reviewer, Finnish Research Centers of Excellence Program
2005-06 Co-organizer, LHC Olympics Challenge and summer and Winter CERN conferences
2005-06 Member, Advisory Committee, LS&A Theme Semester on Evolution
2005-06 Member, Advisory Committee, LS&A Theme Semester on Physics
European Research Council Referee, 2007-2013
2004 Appointed Professor (without salary or tenure) in School of Art and Design
2003 Member, National Science Foundation Panel to review Theory Division proposals, Washington, D.C.
2003 Elected a Fellow of The Institute of Physics, Great Britain
2002 Advisor to DoE for Review of Fermi National Accelerator Laboratory
2001 Elected Fellow of American Association for Advancement of Science
2001 Appointed to Editorial Board, Journal of Physics G, London, England

2001 Participant, "Research Horizon Scanning", Canadian Institute of Advanced Research --- A panel to advise on what major research directions might be exciting to support

1999 Member, 1999 Search Committee for LS&A Dean

1999 Appointed Chair of Selection Committee for J. J. Sakurai Prize of the American Physical Society.

1998 National Science Foundation Review Panel for Particle and String Theory

1997 Physics Department Visiting Committee, University of California at Riverside

1997 Invited to be an "American Physical Society Centennial Speaker", a group of "outstanding lecturers" from all fields of physics who will have names and possible lecture topics listed in a book that will be widely distributed to encourage many very broad colloquia during the Centennial Year 1999 that will give a sense of "excitement and accomplishments of 20th century physics".

1996 National reviewer, NSF CAREER Program (that replaces the Presidential Young Investigator Awards) --- Chairman of National Panel for particle theory and cosmology

1996 Invited to talk to the national meeting of science writers, on "Supersymmetry"

1995 Consultant to the DoE for Review of Lawrence Berkeley Laboratory HEP program, March 1995

1995 Invited coordinator, "Frontier Science and Technology Workshop", Jet Propulsion Laboratory, Pasadena

1994-98 Elected as Senior Fellow of the Michigan Society of Fellows

1994-95 Elected Chairman, SLAC Experimental Program Advisor Committee

1994 Convener (with D. Gross and E. Witten) of the "Supersymmetry, Gravity, and Strings" Working Group of the DPF Study of High Energy Physics. Results summarized in report "The State of Exploratory Theory Beyond the Standard Model".

1993-96 Appointed Member, SLAC Experimental Program Advisory Panel

1993-94 Consultant to DoE for annual review of High Energy Physics Brookhaven National Laboratory.

1993 Consultant to the DoE for its 5-year review of the L3 detector at CERN LEP Dec. 1993

1992 Appointed Distinguished Visiting Speaker, University of California at Davis

1991-93 Elected member of the Nominating Committee of the American Physical Society for a three year term

1989-92 Member, Budget Priorities Committee, University of Michigan (this committee is the more-or-less the executive committee of the University, advising the Provost on policy matters and on budget decisions and their impact on academic matters)

1988-91 Elected to International Executive Committee, SSC Users Organization (UOSSC)

1988-90 U.S. -- Spain Joint Committee for Scientific and Technological Cooperation

1988 Appointed Delphasus Lecturer, University of California, Santa Cruz

1986-90 Appointed to four year term on the SLAC Scientific Policy Committee, as one of the two theorists on the Committee, which has representatives from Europe and Japan, and reports to the President of Stanford and to the Department of Energy.

1986-88 Elected to Executive Committee of the Division of Particles and Fields of the APS, with highest vote and therefore longest term

1984 Member, U.S. Delegation to International Committee on Future Accelerators (ICFA), Japan, May 1984

1982-86 Initiator and member of the National Advisory Board for a pedagogical advanced study institute in particle physics. This is now the TASI School which meets annually to provide courses in frontier topics to supplement the education of Ph.D. students.

1982- Elected as a Member of the Johns Hopkins University Society of Scholars

1982- Leader (with M. Perl) "Beyond the Standard Model" part of Division of Particles and Fields National Planning Study for Future Facilities (Snowmass '82) The studies of our group formed an important foundation for the scientific goals of the SSC and the LHC.

1981-85 Member of the Editorial Board of Physical Review

1980 Initiated joint Astrophysics, Particle Physics Meetings at Rencontre de Moriond.

1977-85 Initiated and directed for two years, a University of Michigan interdisciplinary faculty Institute to examine science and values questions (the Collegiate Institute for Values and Science)

1976- Fellow, American Physical Society

1975-78 Chairman, Publications Committee of the Division of Particles and Fields of American Physical Society
1971-72 J.S. Guggenheim Fellow, Rutherford Laboratory and Oxford University, England

Listings:
American Men and Women of Science
Who's Who in Science and Engineering
International Who's Who of Contemporary Achievement
Who's Who in the World
Who's Who in America

Radio talk shows (selected):
Milt Rosenberg Show, Chicago, twice
G. Gordon Liddy Show
The Green Room
National Public Radio Science Friday
Diane Rehm National Show, NPR

Selected Publications:

205. Discovering Gluino Events at LHC-8 via Disappearing Chargino Tracks, Gordon Kane, Ran Lu, Bob Zheng, Feb. 2012, 6 pp., e-Print: arXiv:1202.448 [hep-ph]
204. Higgs Mass Prediction for Realistic String/M-Theory Vacua, Gordon Kane, Piyush Kumar, Ran Lu, Bob Zheng, arXiv:1112.1059
203. The Baryon-Dark Matter Ratio via Moduli Decay after Affleck-Dine Baryogenesis, Gordon Kane, Jing Shao, Scott Watson, Hai-Bo Yu, published in JCAP 1111 (2011) 012, arXiv:1108.5178
202. Flavour issues for string-motivated heavy scalar spectra with a low gluino mass: the G2-MSSM case, Kenji Kadota, Gordon Kane, Joern Kersten, Liliana Velasco-Sevilla, arXiv:1107.3105
201. Extracting the Wavefunction of the LSP at the LHC, Gordon Kane, Eric Kuflik, Brent D. Nelson, Phys.Lett. B703 (2011) 151-159, arXiv:1105:3742
200. A new (string motivated) approach to the little hierarchy problem, Daniel Feldman, Gordon Kane, Eric Kuflik, Ran Lu, published in Phys.Lett. B704 (2011) 56-61 arXiv:1105.3765
199. The gluino 4-top signature at 7 TeV, Gordon Kane, Eric Kuflik, Ran Lu and Liantao Wang, in preparation
198. The μ parameter in M-theory: Theory and Phenomenology, Bobby Acharya, Gordon Kane, and Erik Kuflik, in preparation
197. String Theories with Moduli Stabilization Imply Non-Thermal Cosmological History, and Particular Dark Matter, By Bobby Samir Acharya, Gordon Kane, Eric Kuflik. [arXiv:1006.3272]
196. Dark Matter as a Guide Toward a Light Gluino at the LHC, by Daniel Feldman, Gordon Kane, Ran Lu, Brent D. Nelson. [arXiv:1002.2430] Phys.Lett.B687:363-370,2010
195. *Dark Matter as a Guide Toward a Light Gluino at the LHC,* by Daniel Feldman, Gordon Kane, Ran Lu,Brent D. Nelson. [arXiv:1002.2430] (Feb 2010) 9p.
187. *A Non-thermal WIMP Miracle*, by Bobby Samir Acharya, Gordon Kane, Scott Watson, Piyush Kumar. **Phys-Rev.D80**:083529, 2009, [arXiv:0908.2430].
188. *Is the PAMELA Positron Excess Winos?* By Phill Grajek, Gordon Kane, Dan Phalen, Aaron Pierce, Scott Watson. **Phys.Rev.D79**:043506, 2009, **Phys.Rev.D79**:043506, 2009, [arXiv:0812.4555].
189. *Studying Gaugino Mass unification at the LHC,* by Baris Altunkaynak, Phillip Grajek, Michael Holmes, Gordon Kane, Brent D. Nelson. **JHEP 0904**:114, 2009, [arXiv:0901.11458].
190. *Identifying Multi-Top Events from Gluino Decay at the LHC,* by Bobby Samir Acharya, Phill Grajek, Gordon L. Kane, Eric Kuflik, Kerim Suruliz, Lain-Tao Wang, [arXiv:0901.3367] 20p.
191. *The Footprint of F-theory at the LHC,* by Jonathan J. Heckman, Gordon L. Kane, Jing Shao, Cumrun Vafa. **JHEP 0910**:039, 2009, [arXiv:0903.3609].
192. *CP-violating Phases in M-theory and Implications for EDMs*, by Gordon Kane, Piyush Kumar, Jing Shao, [arXiv:0905.2986] MCTP-09-13 (May 2009) 14p.
193. *PAMELA Satellite Data as a Signal of Non-Thermal Wino LSP Dark Matter,* by Gordon Kane, Ran Lu, Scott Watson. **Phys.Lett.B681**:151-160, 2009, [arXiv:0906.4765].
186. *The LHC: A "Why" Machine and a Supersymmetry Factory*, by Gordon Kane. In Kane, Gordon (ed.) et al., Perspectives on LHC Physics 1-11.
185. *Unravelling strings at the CERN LHC*, by Gordon L. Kane, Piyush Kumar, Jing Shao.

Phys.Rev.D77:116005,2008. [arXiv:0709.4259]

184. *The G(2)-MSSM: An M Theory motivated model of Particle Physics,* by Bobby S. Acharya, Konstantin Bobkov, Gordon L. Kane, Jing Shao, Piyush Kumar. Phys.Rev.D78:065038,2008. [arXiv:0801.0478]
183. *Non-thermal Dark Matter and the Moduli Problem in String Frameworks*, by Bobby S. Acharya, et al., JHEP 0806:064,2008. [arXiv:0804.0863]
182. *Initial determination of the spins of the gluino and squarks at LHC*, by Gordon L. Kane, Alexey A. Petrov, Jing Shao, Lian-Tao Wang. [arXiv:0805.1397]
181. *Neutralino Dark Matter from Indirect Detection Revisited*, by Phill Grajek, Gordon Kane, Daniel J. Phalen, Aaron Pierce, Scott Watson. [arXiv:0807.1508].
180. *Dark Matter and LHC: What is the Connection?* by Gordon Kane & Scott Watson. Mod.Phys.Lett.A23:2103-2123,2008. [arXiv:0807.2244]
179. *Explaining the Electroweak Scale and Stabilizing Moduli in M Theory* (with Bobby S. Acharya, Konstantin Bobkov, Piyush Kumar, Jing Shao): hep-th/070103, PhysRevD76:126010, 2007
178. *Connecting (Supersymmetry) LHC Measurements with High Scale Theories* (with Piyush Kumar, David E. Morrissey, Manuel Toharia), Dec 2006. 39pp. hep-ph/0612287, Phys Rev D75 115018,2007
177. *Inflation without Inflaton(s)* (with Scott Watson, Malcolm J. Perry Fred C. Adams). hep-th/0610054, 2007
176. *LHC String Phenomenology* (with Piyush Kumar, Jing Shao). Oct 2006. 50pp. hep-ph/0610038, J.Phys.G34:1993-2036,2007
175. *An M theory Solution to the Hierarchy Problem* (with B. Acharya, K Bobkov, P.Kumar, D.Vaman, Published in Phys.Rev.Lett.97:191601,2006. hep-th/0606262
174. *How Can We Go From Hadron Collider Data Toward the Underlying Theory That Extends the Standard Model? After the Champagne*. hep-ph/0504257
173. *Supersymetry and the LHC Inverse Problem,* (with N.Arkani-Hamed, J. Thaler, L. Wang), hep-ph/0512190
172. *Twenty-five Questions for String Theorists*, [hep-th/0509157] (with P. Binetury, J. Lykken, B. D. Nelson)
171. *Is it SUSY?* [hep-ph/0510204] (Oct 2005) (with A. Datta, M. Toharia).
170. *Study of Theory and Phenomenology of Some Classes of Family Symmetry and Unification Models*,JHEP 0508:083, [hep-ph/0504038], (2005) (with S.F. king, I.N.R. Peddie, L. Velasco-Sevilla).
169. *Some Top-down and Stringy Perspective on Flavor Physics*, J. Korean Phys.Soc.45:S313-S317, 2004.
167. *The Minimal U(1)' Extension of the mssm*, [hep-ph/0503290], (March 2005) (with D. Demir and Ting T. Wang), Phys. Rev. D72 (2005) 015012.
166. *Massive Neutrinos and (Heterotic) String Theory*, [hep-th/0502032] MCTP-05-01 (with Joel Giedt, Paul Langacker, and Brent D. Nelson). Phy Rev D71 (2005) 115013
165. *What is the Cosmological Significance of a Discovery of Wimps at Colliders or Indirect Experiments?*, [hep-ph/0501262] (Jan. 2005) (with Jacob Bourjaily).
164. *Some Phenomenology of Intersecting D-brane Models*, [hep-ph/0411125] (with Piyush Kumar, Joseph Lykken, and Ting T. Wang), Phys. Rev.D7 (2005) 115017.
163. *High Scale Study of Possible B(d)→ phi K(S) CP Physics*, [hep-ph/0407351] (with Hai-bin Wang, Lian-tao Wang, and Ting. T. Wang).
161. *Theoretical Implications of the LEP Higgs Search*, [hep-ph/0407001], Phys.Rev. D71, 035006 (2005) (with Ting T. Wang, B.D. Nelson, and Lian-Tao Wang).
160. *Relating Incomplete Data and Incomplete Theory*, [hep-ph/0312248], Phys.Rev. D70, 095006 (2004) (with Brent D. Nelson, Lian-Tao Wang, and Ting T. Wang).
159. *An Approach to the Cosmological Constant Problem*, [hep-ph/0408169], Phys.Lett B609, 7-12 (2005) (with Malcolm Perry and Anna Zytkow).
158. *B(s)→ μμ as a Probe of tanβ at the Tevatron*, [hep-ph/0310042], (with Christopher Kolda and Jason E. Lennon).
156. *The Soft Supersymmetry Breaking Lagrangian: Theory and Applications, Physics Reports,* [hep-ph/0312378], 407, 1-203 (2005) (with D. Chung, L.Everett, J. Lykken, S. King, and L.-T. Wang).
154. *Theory Motivated Benchmark Models and Superpartners at the Tevatron*, [hep-ph/0209061], Phys. Rev. D67, 045008 (2003) (with J. Lykken, S. Mrenna, B. D. Nelson, Lian-Tao Wang, and Ting T. Wang).

153. *Reexamination of Electroweak Symmetry Breaking in Supersymmetry and Implications for Light Superpartners*, Phys. Lett. B551, 146-160 (2003) (with J. Lykken, B. D. Nelson, and Lian-Tao Wang).
151. *CP Violation beyond the Standard Model*, J. Phys. G 28, 345 (2002) (with D.D. Doyle).
149. *Alternative Approach to b⟶s \γ in the UMSSM*, [hep-ph/0112126], JHEP (2002) 0201:022 (with L. Everett, Lian-Tao Wang, and Ting Wang).
146. *Supersymmetry: What? Why? When?*, Contemp. Physics, 41, 359-367 (2000)
145. *Implications of the Muon Anamalous Magnetic Moment for Discovering Superpartner and their properties*, hep-ph/0102145, Phys. Rev. Lett. 3484, 86 (2001) (with L.Everett, S.Rigolin, and L.Wang).
143. *Proton Decay, Black Holes, and Large Extra Dimensions*, hep-ph/0009154, International Journal Mod. Phys. A, 2399, 16 (2001) (with F.Adams, M.Mbonye, and M.Perry).
141. *D-Branes and Textures*, JHEP 0008, 12 (2000) (with L.Everett and S.F.King).
140. *Pursuing the Origin of Electroweak Symmetry Breaking: A Bayesian Physics Argument for Total Energy 600 GeV e^+e^- Collider*, hep-ph/0003249 (with J.Wells).
139. *Implications of Supersymmetry phases for Higgs Bosons*, Phys. Lett. B488, 383 (2000) (with L.Wang).
137. *Weighing the universe with accelerators and detectors*, hep-ph/0005158, International Journal of Modern Physics D 367, 10 (2001) (with M.Brhlik and D.Chung).
134. *Measuring gaugino soft phases and LSP mass at Fermilab*, Phys. Lett. B483, 175 (2000) (with S.Mrenna and L.Wang).
133. *Can Supersymmetry soft phases be the source of all CP violation?*, Phys. Rev. Lett. 84, 3041 (2000) (with M.Bhrlik, L.Everett, S.King, and O.Lebedev).
132. *Superstring Theory and CP violation phases: can they be related?*, Phys. Rev. D, 62, 035005 (2000) (with M.Bhrlik, L.Everett, and J.Lykken).
130. *Nearly Degenerate Neutrinos and Broken Flavor Symmetry*, hep-ph/9901228 (with R. Barbieri, L. Hall, G. Ross).
129. *Electronic Dipole Moments Do Not Require the CP Violating Phases of Supersymmetry to be Small*, to appear in Phys. Rev. (with M. Brhlik and G. Good).
127. *Measuring the Supersymmetry Lagrangian*, Phys. Rev. Lett. B437, 331 (1998) (with M. Brhlik).
122. *Search for Supersymmetry with a Light Gravitino at Fermilab and CERN LEP Colliders*, Phys. Rev. D54, 5395 (1996) (with S. Ambrosanio, G. Kribs, S. Martin, and S. Mrenna).
121. *Are half the top quarks at FNAL from Gluino Decays?*, Phys. Rev. Lett. 77, 3502 (1996) (with S. Mrenna).
120. *Higgsino Cold Dark Matter Motivated by Collider Data*, Phys. Rev. Lett. 76, 4458 (1996) (with J. Wells).
119. *Supersymmetric Analysis and Predictions Based on the CDF eeγγ+E/t t event*, Phys. Rev. Lett. 76, 3498 (1996) (with S. Ambrosanio, Graham D. Kribs, Stephen P. Martin).
117. *Two-Photon Decays of the Lightest Higgs Boson of Supersymmetry at the LHC*, Phys. Rev. D53, 213 (1996) (with G. Kribs, S. Martin, and J. Wells).
116. *Chaotic Inflation and a Radiatively Generated Intermediate Scale in the Supersymmetric Standard Model*, Phys. Lett. B354, 300 (1995) (with T. Gherghetta).
111. *Possible Detection of a Higgs Boson at Higher Luminosity Hadron Colliders* (with S. Mrenna).
109. *Study of Constrained Minimal Supersymmetry*, Phys. Rev. D49, 6173 (1994) (with C. Kolda, J. Wells, and L. Roszkowski).
108. *Calculable Upper Limit on the Mass of the Lightest Higgs Boson on any Supersymmetric Theory*, Phys. Rev. Lett. 70, 2686 (1993) (with C. Kolda and J. Wells).
107. *Could CP Violation Be Detected at Colliders?*, Phys. Lett. B317, 454 (1993) (with C.J.-C. Im and P.J. Malde).
106. *Detecting Invisible Higgs Bosons at SSC*, Phys. Rev. D50, (1994) (with S. Fredrickson, N. Johnson, J. Reid).
105. *The Top Quark as a Probe of Standard Model Symmetries*, Phys. Rev. 45D, 124 (1992) (with C.-P. Yuan and G. Ladinsky).
99. *How to Study Longitudinal W's in the TeV region*, Phys. Rev. D40, 2231 (1989) (with C.-P. Yuan).
97. *Comments on How to Elucidate the Mechanism of CP Violation*, Phys. Rev. D39, 2633 (1989) (with P. Castoldi and J.-M. Fr\`ere).
91. *WW Scattering at Future Colliders*, Nucl. Phys. B272, 517 (1986) (with M.J. Duncan and W.W. Repko).
90. *Cross-Sections for Dark Matter Particles and Implications for Allowed Masses, Interactions, and Detection*, Nucl.

Phys. B277, 525 (1986) (with I. Kani).

87. *Cosmic Ray Antimatter from Supersymmetric Dark Matter*, Nucl. Phys. B263, 399 (1986) (with J.S. Hagelin).
84. *The Search for Supersymmetry*, Phys. Rept., 117, 75 (1985) (with H.E. Haber).
80. *The Effective W± Zo Approximation for High Energy Collisions*, Phys. Lett. 148B, 367 (1984) (with W. Repko and W. Rolnick).
76. *Perhaps Scalar Neutrinos Are the Lightest Supersymmetric Particles*, Nucl. Phys. B241, 638 (1984) (with J.S. Hagelin and S. Raby).
73. *On the Possibility of Finding Light, Uncolored Supersymmetric Partners at Present and Future Machines*, Nucl. Phys. B223, 331 (1983) (with J.-M. Frere).
71. *Experimental Constraints on Gluino Masses and Supersymmetric Theories*, Phys. Lett. 112B, 227 (1982) (with J.P. Leveille).
69. *Constraint from B Decay on Models with no t Quark*, Nuc. Phys, B195, 29 (1982) (with M. Peskin).
66. *Experimental Predictions for Technicolor Theories*, Nuc. Phys. B182, 77 (1981) (with S. Dimopoulos and S. Raby).
64. *Branching Ratios in Baryon Decay*, Phys. Rev. D22 2808 (1980) (with G. Karl).
56. *The Fermion Mass Scale and Possible Effects of Higgs Boson on Experimental Observables*, Nucl. Phys. B161, 493 (1979) (with H.E. Haber and T. Sterling).
52. *Will Large Weak Interaction Effects be Observable at Very High Energies?*, Nucl. Phys. B144, 525 (1978) (with H.E. Haber).
51. *Transverse Quark Polarization in Large PT Reactions, e+e- Jets, and Leptoproduction: A Test of QCD*, Phys. Rev. Lett. 41, 1689 (1978) (with J. Pumplin, W. Repko).
50. *Studying Gluon Properties Experimentally*, Nucl. Phys. B137, 313 (1978) (with Y.-P. Yao).
21. *Dual, Crossing-Symmetric Amplitude with Mandelstam Analyticity*, Phys. Rev. Letters 26~No.~2 112-115 (1971) (with G. Cohen-Tannoudji, F.S. Henyey and W. Zakrzewski).
14. *Can the Parity of the Ω^- be Measured?*, Phys. Rev. 176, 1733-1734 (1968) (with M.J. Moravcsik).
3. *Study of a Self-Consistent Calculation of the Ω^- as a K Bound State*, Phys. Rev. 135 B843-B849 (1964).

Selected Invited Talks and Lectures at National and International Meetings, Schools, and Public Talks. [NOT including seminars and colloquia at universities and laboratories.]

2012

242. Saturday Morning Physics, Feb 11
241. Distinguished Professor Inaugural talk, March 6, 2012
240. American Physical Society Lilienfeld Prize talk, April 1
239. Talk to American Physical Society Executive officers and Division Heads, April 20
238. Simons Center, Stony Brook, String theory, LHC,Higgs bosons, and the real world, May
237. Newton Institute, University of Cambridge, String theory, LHC, Higgs bosons, and the real world, June
236. Supersymmetry 2012, Beijing, August

2011

235. SpaceX POTUS meeting, Jan 2011
234. String Vacuum Project, Relating Moduli and Gravitino masses, Philadelphia, May
233. The μ problem and Xenon experiments, June, Shanghai
232. International String Phenomenology, Madison, String/M theory, Our String Vacuum, and Higgs bosons, August
231. Panel on Fermilab, Sept, Fermilab
230. Valencia workshop series, seminar and colloquium, Oct

2010

229. Invited talk at Planck 2010, "String Theory, LHC, and Dark Matter", CERN, June 2010
228. Invited talk at Supersymmetry 2010, "LHC and Dark Matter Connection", Bonn, August 2010
227. Invited talk, "Progress with M-Theory Compactified on a G_2 Manifold and its Phenomenology", String Phenomenology 2010, Paris, July 2010
226. Invited talk, "String Phenomenology, Cosmological History, Dark Matter, and LHC", KITP, May 2010
225. Invited talk, "Implications of Explaining Pamela data with wino annihilation for LHC and Cosmology", Dark Matter 2010, Santa Monica, February 2010
224. Invited talk, one of three "Big Picture" talks at "The Physics of the Universe Summit", CalTech and SpaceX, January 2010

2009

223. Invited talk, "Wino Dark Matter and LHC", ICTP, Trieste, LHC physics workshop, July 2009
222. Invited talk, "Describing PAMELA data with Wino-LSP Annihilation", TeV Particle Astrophysics, Stanford, July 2009
221. Invited Public Talk, "Unveiling the Ultimate Laws of Nature: Supersymmetry and the LHC", Warsaw, July 2009
220. Invited Public Talk, "Unveiling the Ultimate Laws of Nature" Rensaller Polynetic Institute, Troy, NY, October 2009
219. Invited Public Talk, Texas A&M University, Dark Matter, LHC, and our quest for the laws of nature
218. Invited talk, CERN Institute LHC2FC, "Dark matter, LHC, and missing energy"
217. "Non-thermal wino dark matter and string phenomenology", String Phenomenology 2009, Warsaw
216. "LSP dark matter and LHC", SUSY09, Northeastern, June 5, 2009
215. "Wino LSP dark matter, satellite data, and LHC", Ricap09, Rome, May 11-15, 2009
214. "Non-thermal dark matter and string phenomenology", Cook's Branch, March 2009
213. Invited Public talk, Dow Corning Corporation, Midland Michigan, "The Significance of LHC", February

2008

212. Lewiner Lectures, Technion, Tel-Aviv, Israel, December 2008 "Dark Matter"; "Predictions and tests from string theory"; "Strings and the Real World"
211. International Center for Theoretical Physics, Trieste, Italy, December 2008, "LHC—a Why Facility"
210. Kavli Institute for Theoretical Physics-China, Beijing, "Interpreting LHC and dark matter data"
209. Clay Mathematical Institute, workshop on LHC and string theory, "Excursions below the string scale"
208. 16th Annual international supersymmetry conference, June 2008, Seoul, Korea, "Toward the underlying theory, Learning to interpret LHC data"
207. Particle Physics and Cosmology, Albuquerque, May 2008, "Summary talk"
206. KITP Santa Barbara LHC conference, May 2008, "Footprint and Signature studies of LHC data to test string theories"
205. Madison Phenomenological Particle Physics Meeting, "Interpreting LHC and dark matter data"

2007

204. LHC Physics Workshop, CERN, Aug 7-24 2007, "Explaining the Electroweak Scale from M-Theory and associated Collider Phenomenology
203. Conference on String Theory and Cosmology, ICTP, Trieste, July 9-13, 2007 "A Small Cosmology Constant and Inflation without Inflatons"
202. Conference on Cosmology and particle Physic, Stockholm June 16-20 2007, Plenary Talk "A Small Cosmology Constant and Inflation without Inflatons"
201. International "From the Planck Scale to the Electroweak Scale" Meeting, Planary Talk "From M Theory to the Electroweak Scale", June 9-13 2007, Warsaw

200. Invited Plenary talk, "LHC and Dark Matter String Phenomenology", VI International String Phenomenology Conference, Rome June 2007
199. Public Talk, University of California- Davis, "We Need Extra Dimensions", April 2007
198. Society of Physics Student, University of Michigan, "Supersymmetry: What, Why, When?", April 2007
197. Invited talk, Mitchel Symposium on Cosmology and Particle Physics, "Dark Matter and LHC", May 2007
196. Invited talk, LHC Theory and Phenomenology Meeting, Princeton, Mar-2007 "Explaining the Electroweak Scale from M-Theory and Associated Phenomenology"

2006

190. Invited talk, World Summit on Physics Beyond the Standard Model, "Supersymmetry", Galapagos Island, June.
189. Invited talk at LHC Winter Olympics, LHC Inverse Problem, CERN, Feb. 2006.
188. Invited talk, 2nd Cairo International Conference in High Energy Physics, Feb. 2006.
187. Invited talk, University of Michigan Orgins Symposium, "13.7 Billions Years –the Summary", Jan. 2006.
186. Invited talk to Michigan Skeptics Society, Particle Physics and Cosmology, present and Future, November 2006.

2005

185. Invited talk, the Internet Publication of Scientific Work, in Symposium, "Future of Scientific Writing", University of Michigan, Sept. 2005.
184. Invited Aspen lecture on LHC physics, Aug. 2005.
183. Invited Aspen Colloquium, SuperCosmology, Aug. 2005.
182. Invited opening talk, LHC Olympics, CERN, June 2005.
181. Invited Lecturer on Supersymmetry, Perimeter String Theory School, June 2005.
180. Invited Lecturer on LHC Physics, TASI School, June 2005.
179. Invited Plenary talk, 4th Annual String Phenomenology meeting, Munich, June 2005.
178. "What Counts as String Phenomenology", Perimeter Institute String Phenomenology meeting, Invited initial talk, March 2005.
177. "Why Einstein would be a string phenomenologist today", Monterrey, Mexico (part of Mexican year of Physics conference), Jan. 2005.

2004

175. "Learning Physics from Hadron Colliders", LHC Physics meeting, Vienna, July 2004.
174. Colloquium, Aspen Center for Physics, "What is String Phenomenology", Aug. 2004.
172. Invited Plenary Talk, "A Possible Mechanism to get a Small Positive Cosmological Constant", from the Planck Scale to the Electroweak Scale, Bonn, Germany, May 2004.
171. Invited Plenary Talk, "An Approach to the Cosmological Constant, Problems(s)", Rencontre de Moriond, La Thuile, Italy, March 2004.

2003

170. Invited Public Talk, "Anthropic Questions", Phi Kappa Phi Honor Society Innauguration, April 2003.
169. Invited talk, "Top-down Perspective on Flavor Physics", Seoul, Korea, "International Conference on Flavor Physics", October 2003.
168. Invited Public talk, "Connecting Particles and the Universe", in connection with the NASA exhibit "Cosmic Questions", Midland, MI, April 2003.
167. Invited talk, "Questions for String Theorists", String Phenomenology03, Durham, England, July 2003.
165. Invited talk, "Why is There No Good Supersymmetric Standard Model?", From the Weak to the Planck Scale, Madrid, May 2003.

2002

162. Invited talk, Victor Weisskopf Memorial Symposium, MIT, Nov. 2002.

161. Invited Lecture, "What Would Dirac Think About Particle Physics Today," Dirac Century Conference, Baylor University, Oct. 2002.
160. Four Invited Lectures on Supersymmetry, Beijing Supersymmetry School, July 2002.
159. Invited talk, Fifth European "From the Planck Scale to the Electroweak Scale", Kazimierz, Poland, May 2002.
157. Invited talk, European particle Theory Network annual meeting, Durham, England, May 2002.
156. Invited talk, First String Phenomonology Meeting, Oxford, England, June 2002.

2001

155. Invited Public talk, Dartmouth University, How Well Can We Understand the Physical Universe, Nov. 2001.
154. Three Invited talks, Snowmass 2001, "Origins of Electroweak Symmetry Breaking", "What is the Cold Dark Matter of the Universe", and "Status of Supersymmetry in 2011", 2001, Denver, CO.
151. Four Invited lectures on Supersymmetry, at the U.S. Theoretical Advance Study Institute, Boulder, CO, June 2001.
146. Invited public talk, How well can we understand the Physical Universe, University of Southampton, April 2001.
145. Invited talk, Institute of Physics Annual conference, Southampton, England, New Clues to Particle Physics of the New Millennium, April 2001.
144. Invited talk, Implications of Recent Results on Higgs Physics, CP violation, and the Muon Magnetic Moment, La Thuile, Italy, March 2000.
143. Invited talk, The Supersymmetry Soft-Breaking Lagrangian, Cairo International Conference on High Energy Physics, Jan. 2001.

2000

142. Invited presentation on why to build e+e- collider, Aspen, CO, Aug. 2000.
141. Invited Lecture in Arts and Sciences Program, Saline Public Library, Saline MI, "How Well Can We Understand The Physical Universe?", Nov. 2000.
140. Invited talk, Can We Learn What is the Cold Dark Matter of the Universe, COSMO 2000, Cheju, Korea, Sept. 2000.
139. Invited talk, The Physics Basis for a 600 GeV Linear Electron Collider, at SUSY 2000, CERN, June 2000.
138. Invited talk, Workshop on Supersymmetry Tools, Colmar, France, April 26-28.
136. Invited talk, Ford Scientific Research Laboratory Sigma Xi Lecture, "How well can we understand the physical universe?", March 2000.
135. Invites lecture, "Higgs Physics" as 20th anniversary speaker for the University of Michigan SPS, April 2000.
134. Invited lectures, South American Physics School, "the Supersymmetry Soft-breaking Lagrangian", Cartagena, Colombia, March 2000.
133. Invited talk, Future Collider Workshop, "There IS a physics case for the NLC", Berkeley, CA, March 2000.

1999

131. Invited lecture at the Quarknet Institute for High School Teachers, "The Standard Model of Particle Physics", Fermilab, Nov. 1999.
130. Invited talk, Muon Collider Conference, "Where are the superpartners and how should we study them?", San Francisco, CA, Dec. 1999.
128. Invited talk, Joint Theory Seminar, Nevav Shalon, Israel, "D-branes, supersymmetry phases, and CP violation", Dec. 1999.
127. Invited talk, ITP conference on Supersymmetry and String Theory,"D-branes, supersymmetric soft phases, and b-factories", Nov. 1999.
126. Invited talk, Institute for Theoretical Physics Workshop "The Supersymmetry Soft-breaking Langrangian and CP-Violation", Oct. 1999.
125. Invited Plenary talk --- to conclude meeting, Supersymmetry 1999, Fermilab, June 1999.
122. Three Lectures on Higgs Physics, Frascati National Laboratory, Frascati School on Subnuclear Physics, Frascati, Italy, April 1999.
121. Invited Plenary Talk, Particle Physics for the Third Millenium, at Conference Phenomenology for the Third

Millenium, Madison, WI, April 1999.

119. Invited talk, Division of Particles and Fields Annual Meeting, The Supersymmetry Soft-Breaking Lagrangian, Where Experiment and Theory Meet, UCLA, Jan. 1999.

1998

118. Invited Plenary Remarks --- An overview of the related origins of matter in the universe, Asilomar, Dec. 1998.
116. Invited Opening Talk, Workshop on Supersymmetry at Fermilab, May 1998.
115. Invited Talk, "Are Gluinos a Major Source of Tops?", Top Quark Thinkshop, Fermilab, Nov. 1998.
114. Invited Talk, International Dark Matter Workshop, Buxby, England, Sept. 1998.
113. Invited Talk, "The Parameters of Supersymmetry --- Where Theory and Experiment Meet", at Particles, Strings, and Cosmology, Boston, March 1998.
112. Invited talk, "Measuring the Parameters of Supersymmetry", CNRS Workshop "Tools for Supersymmetry", Annecy, France, March 1998.
111. Invited talk, "How well Can We Learn the Cold Dark Matter Relic Density from Particle Physics Data?", at Dark Matter in the Universe, Marina del Rey, CA, February 1998.
110. Invited talk, "Interpreting Data on Supersymmetry at Hadron Colliders", at LHC Workshop, CERN, February 1998.
109. Invited lectures on Supersymmetry, 15th Nordic Meeting on Particle Physics, Spatind, Norway, January 1998.

1997

108. Invited talk, "Higgs Physics", Muon Collider Workshop, San Francisco, December 1997.
107. Invited General Colloquium, CERN, November 1997.
106. Invited lecture, International School of Subnuclear Physics, Erice, Sicily, August 1997.
104. Invited Lectures on Supersymmetry, Trieste School on Advanced Particle Physics, June 1997.
100. Invited talk, "Predictions from Supersymmetry for BR($b \to \gamma s$), Symposium on Flavor Changing Neutral Interaction, Santa Monica, CA, Feb. 1997.

1996

99. Invited lecture, "Increasing Evidence for Supersymmetry and Implications", I Latin American Symposium on High Energy Physics, Merida, Yucatan, Nov. 1996.
98. Invited talk, "Increasing Evidence for Supersymmetry and Implications for Cold Dark Matter, University of Tokyo, Conference on Dark Matter in the Universe, Nov. 1996.
95. Invited talk, "Evidence for Supersymmetry and Implications for Cold Dark Matter", at Neutrinos, Dark Matter, and the Universe, Blois, France, June 1996.
93. Invited talk, "Physics Opportunities for the Tevatron Collider", 1996 Annual Meeting of the American Physical Society, Indianapolis, May 1996.
91. Invited talk, "Realistic Models of Supersymmetric Dark Matter", at Dark Matter 1996, Santa Monica, CA, Feb. 1996.

1995

89. Invited Opening Talk, "Physics Opportunities for the Next Linear Collider", June 1995, Estes Park, CO, International NLC Workshop.
87. Invited Talk at American Physical Society Washington Meeting, "Is the World Supersymmetric? When Will We Know?", April 1995.

1994

86. Invited Summary Talk, at Beyond the Standard Model IV, Lake Tahoe, Dec. 1994.
84. Invited Talk "Supersymmetry Physics and its Implications for Discoveries at Present and Upgraded and Future Colliders", at Workshop on Future Physics and Accelerators, Saariselka, Finland, Aug. 1994.
82. Invited talk "Cold Dark Matter from Constrained Minimal Supersymmetry", at Neutrino 1994, Eilat, Israel, May 1994.

1993

76. Invited talk "Expectations for Masses of SUSY Higgs Bosons", Aspen Winter Conference, Aspen, January 1993

1992

74. Invited talk, Erice Supersymmetry Workshop "Supersymmetry Models", September 1992.

1990

65. Invited Lecturer, 18th Annual SLAC Summer Institute, July 1990, "Top Quark Topics"

1989

63. Invited talk, "Physics Goals of the SSC", 1989 U.S. Particle Accelerator School
62. Invited talk, "How to Study TeV WW Interactions", Argonne National Laboratory SSC Workshop, June 1989.

1988

61. Invited talk, "How to Elucidate the Mechanism of CP Violation", Vancouver Workshop on CP Violation, December 1988, published in Proceedings.

1987

53. Invited Rapporteur for "Beyond the Standard Model", International Conference on High Energy Physics, Uppsala.

1985

46. "Physics from Future Hadron Colliders", three lectures at the XIII International Winter Meeting on Fundamental Physics, Cuenca, Spain (April 1985).

1984

44. "The Future of Rare Decays", Invited talk at the Conference "50 Years of Weak Interactions", Wingspread Foundation, (May 1984).
37. "How Excluded by the Absence of Proton Decay are Models with a Desert?", Invited talk at the Park City Nuclear Decay and Grand Unification Conference, (January 1984).

1983

35. "Testing Supersymmetry", lectures at 21st International School of Subnuclear Physics, Erice, (August 1983).
34. "Testing Supersymmetry", Invited talk at Fourth Workshop on Grand Unification, (April 1983).

1982

31. "Beyond the Standard Model", Invited talk at Annual Meeting, APS Division of Particles and Fields, (October 1982).
30. "The Search for Experimental Evidence for Supersymmetry", Invited talk at Washington APS meeting, (April 1982).

1981

29. Lectures on Technicolor and Higgs Phenomenology, Les Houches Gauge Theory Summer Institute.
27. "Physics at the Z0", Invited opening talk to Workshop at Cornell, (January 1981).

1978

16. Review talk on Parity Violation in Gauge Theories, Seattle Weak Interactions Institute, (August, 1978).
15. Current Status of New Quarks and Leptons, Invited talk, Annual Meeting Canadian Physical Society, (June, 1978).
14. Comments on the Observability of Weak Interactions at Very High Energies, XIII Annual Recontre de Moriond, weak interaction week, Les Arcs, France, (March 1978).

13. "How Should Gluons be Studied Experimentally?", XIII Annual Recontre de Moriond, Les Arcs, France, in hadronic week, (March 1978).

1977

12. Gluon Interactions, or, Hadron Physics at ISABELLE, ISABELLE Summer Study, (1977).

1972

5. Lecture Series at the Polish School, Diffractive Physics (Zakopane).

1969

2. Finnish School in Hadron Physics, (Liperi), Lecture Series.

Selected Other Publications

40. String Theory and the Real World, invited article for Physics Today, November 2010
39. Perspectives on Supersymmetry II, World Scientific, in press, edited by G. Kane, Second Edition.
38. Perspective on LHC Physics, World Scientific, August 2008 Edited by G. Kane and A. Pierce.
37. Anthology of Writings by Physicists, Great Books Foundation, will include Chapter 3 of my Supersymmetry book (26, above) Other authors in the anthology include, Feynman, Galileo, Newton, Faraday, Maxwell, Joule, Eddington, Planck, Einstein, Gamov, Heisenberg, Hawking, Weinberg.
36. Scientific American Special Issue on Physics, Extra Edition, will reprint two of my articles (34, 35 above) from a total of eleven, Dec. 2006.
35. Invited article for Scientific American, "The Mysteries of Mass", Sci. Am. 293N7:30-37, 2005.
34. Invited lecture on "Emergence and Effective Theories", University of Michigan Program "Case Studies in Emergence", March 2003.
33. Invited article for Scientific American, "Physics Beyond the Standard Model", Sci. Am. 288N6(2003)68.
32. Invited article, "Anthropic Questions", Phi Kappa Phi Forum, Fall 2002.
31. Invited article for New Scientist "Higgs Physics: What? Why? When?", New Sci 173N2336(2002)28 (with E. Witten).
30. Invited articles for Grolier Encyclopedia, "Higgs Physics", "Dark Matter and Dark Energy", "Supersymmetry", "Fundamental Constants", 2002.
29. Co-Editor with M. Shifman, "The Supersymmetric World: The Beginnings of the Theory", World Scientific, 2001.
28. Invited exhibitor, "Gardens", Villa Medici, Rome, Fall 2000.
24. "How Science Progresses", invited article, LSA Magazine, Fall 1998.
23. "The Physics Potential of LEP", invited article for CERN Courier, April 1998.
22. Winner, Physics Today Essay Contest - Physics Tomorrow, "Experimental Evidence for More Dimensions Reported". May 2001.
21. Edited the book "Perspectives on Supersymmetry", 1998, World Scientific.
20. Edited (2nd Edition) the book "Perspectives on Higgs Physics II", Fall 1997, World Scientific.
19. "Superstring Theory is Testable, Even Supertestable", Physics Today, February 1997, 40.
18. Invited to write Chapter in El Pais Year Book on Science, on "U.S. Scientific Policy and the Supercollider", 1996
17. "The Particle Garden - Our Universe as Understood by Particle Physicists", Dec. 1994, Helix Books, Addison-Wesley. Paperback edition June 1996
16. "Modern Elementary Particle Physics", updated and published in paperback edition, (March 1993)
15. Editor, "Perspectives on Higgs Physics", a book with chapters giving different views and current status of thinking on electroweak symmetry breaking and Higgs physics, (World Scientific, 1993).
12. "The Higgs Hunters Guide", a book covering all aspects of what is known about how to search for Higgs bosons. Addison-Wesley, April 1990 (with J. Gunion, H.E. Haber, and S. Dawson).
10. "Modern Elementary Particle Physics", a book describing the Standard Model at a level suitable for people having an introductory knowledge of quantum theory, (AddisonWesley, September 1987)

9. How Can We Find Out If Nature Is Supersymmetric? (July 1986), Scientific American (with H.E. Haber).
6. Are We the Center of the Universe, Invited article for Michigan Quarterly Review Special Issue on "Science and the Human Image" XXIV 227 (1985).
4. Comptons's Encyclopedia entry on particle physics,