James Thomas Wheeler

Associate Professor of Physics
Utah State University

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Employment:

Associate Professor	Utah State University	1995-pres.
Assistant Professor	Utah State University	1989-1995
Assistant Professor	Swarthmore College	1988-1989
Research Associate	University of North Carolina	1986-1988

See detailed employment history below.

Education:

Ph.D.	University of Chicago and Enrico Fermi Institute Advisor: P.G.O. Freund Solutions in second order string gravity		1980-1986
NCFD	Internat'l Centre of Theoretical Physics (Trieste) Spring School on Supersymmetry and Supergravity		1984
M.S.	University of Maryland Advisor: B.L.Hu Inhomogeneous cosmology		1977-1980
NCFD	University of Michigan Rackham School of Graduate Studies Physics; Premedical studies; American studies		1974-1977
NCFD	University of Colorado Physics		1972-1974
B.A.	Kalamazoo College Advisor: W.M. Wright. Major: Physics Foreign Study: Hannover, Germany		1968-1972

Employment

Associate Professor	Dept. of Physics, Utah State University Reference: Dept. Head, Jan Sojka	2005-present
Associate Professor	Dept. of Physics, Utah State University Reference: Dept. Head, W. John Raitt	1995-2005
Assistant Professor	Dept. of Physics, Utah State University Reference: Dept. Head, W. John Raitt	1989-1995
Assistant Professor	Dept. of Physics, Swarthmore College Reference: Frank Moscatelli, Chair, Department of Physics, Swarthmore College, Swarthmore, PA, 19081. Taught a non-technical 1st-year writing course; a 3rd-year classical mechanics course, an advanced senior seminar in quantum field theory, and several labs.	1988-1989
Post-Doctoral Research Associate	Dept. of Physics, University of North Carolina Reference: Professor Hendrik Van Damm	1986-1988
Research Assistant	The University of Chicago, Enrico Fermi Institute Reference: P. G. O. Freund Research in supergravity and string theory.	1983-1986
Teaching Assistant	The University of Chicago, Reference: Jesus Cuevas, Department of Physics, The University of Chicago, Chicago, Ill, 60637. Taught undergraduates in laboratory and recitations; undergraduate senior physics majors in advanced laboratory.	1981 - 1983
Laboratory Instructor	Illinois Institute of Technology Reference: Gordon Ramsey, Department of Physics, Illinois Institute of Technology, Chicago, Ill. Instructor for Freshman physics laboratory. Explained principles of experiments, monitored students in lab, graded lab reports and gave overall course grade. Approx. 50 students/semester.	1980 -1981
Lecturer	The University of Maryland Summer,1980 Reference: David Falk, Department of Physics, University of Maryland, College Park, Md. Taught the second semester freshman physics course (Electricity and Magnetism) to 50 students at the	

	University of Maryland, in an accelerated (2 hrs./day, 5 days/wk) summer session. Oversaw two teaching assistants who taught the accompanying laboratory.	
Teaching Assistant	University of Maryland Reference: David Falk, Department of Physics University of Maryland, College Park, Md. Assisted several professors in a variety of courses. Nominated for best TA, 1978, by Prof. Harry Holmgren.	1977 – 1980
Science Instructor, Counselor	High/Scope Educational Research Foundation Summer Camp, Ypsilanti, Michigan Reference: David Weikart, High/Scope Educational Research Foundation, Ypsilanti, Michigan. Developed and presented science workshops for teens following guidelines developed by High/Scope based on the work of Piaget.	1975
Statistician	U. S. Medical Research and Nutrition Laboratory Department of Chemistry Letterman Army Medical Center Presidio, San Francisco, CA Data analysis for human vitamin A depletion study	1974
Statistician	U. S. Medical Research and Nutrition Laboratory Department of Chemistry Fitzsimmons Army Medical Center Aurora, Colorado Data analysis for human vitamin A depletion study	1972-1974
Teaching Assistant	Technical Assistant, Kalamazoo College Kalamazoo Michigan Reference: Wayne M. Wright, Department of Physics Kalamazoo College, Kalamazoo, MI, 49001 Assisted in Keller-plan teaching program; worked as laboratory assistant; graded papers.	1968-1972
Cyclotron Research Assistant	Michigan State University Cyclotron Laboratory Lansing, Michigan Tuned the cyclotron during runs; developed a model for deposition of radioactive argon on a moving paper tape; analyzed data. Senior thesis: Electron-induced inverse beta-decay from Calcium-37.	1971-1972
Chromatographer	The University of Michigan School of Public Health Ann Arbor, Michigan Analyzed various compounds using gas	1969

using gas
chromatography.

Refereeing: National Science Foundation, U.S.
National Fund for Science and Technology (FONDECYT), Chile
The Physical Review
Physical Review Letters
Physical Review D
Foundations of Physics
Canadian Journal of Physics

Professional   Lifetime member, General Relativity and Gravitation
Memberships: American Mathamatical Association
American Physical Society (Particles and Fields)   1982-1997
Sigma Xi

Honors

Nominated for Who's Who in America	2007
Runner-Up for Undergraduate Research Mentor of the Year	2003
Introduce 2003 Rhodes Scholar, Lara Anderson, at Reception in her honor	2003
Introduction of Valedictorian at College of Science Commencement	2003
Valedictorian Escort	2003
Marquis' Who's Who	Since 1992
Lexington Who's Who	Since 1999

Honorable Mention Awards for Essays on General Relativity and Gravitation:

Quanta without quantization	1997
Why quantum mechanics is complex	1996
Geodesics of mixed causal type	1994
Theory independent Birkhoff theorem	1993
Gravitationally squeezed light	1989
26-Dimensional string from 4-dimensional geometry	1988

Nominated for Teaching Assistant of the Year (Univ. of Maryland, Dept. of Physics)	1979
John Wesley Hornbeck Prize in Physics (Kalamazoo College)	1972
Cooper Prize in Physics (Kalamazoo College)	1969

PUBLICATIONS

Key:

- All authors listed *alphabetically*, except where noted.

  It is the standard practice in field theory publications to list authors *alphabetically*. Only authors making substandial contributions are included in the list.

- I am the principal author on all publications listed except numbers 3, 7 and 32.

- Student collaborators are marked with superscript S, e.g., Anderson[S]

- World wide web addresses below are of three types:

  arXiv.org is an e-print service in the fields of physics, mathematics, non-linear science, computer science, and quantitative biology. The contents of arXiv conform to Cornell University academic standards. ArXiv is the recognized archive for all forms of research publication in field theory and general relativity. Public use of arXiv is supported by Cornell University and the National Science Foundation.

  kek.jp provides links to the library at Japan's national high-energy particle accelerator laboratory (KEK, Koenigi Kenku Kiko) where scans of physics publications have been made available to the public.

  aps.org addresses link to abstracts of articles published Physical Review D. Full article downloads are available to subscribers.

- Ordering of articles is reverse chronological.

Published
Published in refereed journals or refereed conference proceedings

1. Spencer[S], J. A. and Wheeler, James T., The existence of time, International Journal of Geometric Methods in Modern Physics, Vol. 8 No. 2 (2011) 273-301. http://arxiv.org/abs/0811.0112

2. Wheeler, James and Williams, Thomas[S], *Quantum Mechanics as Biconformal Measurement*, Abstract for talk presented at the 2007 APS Four Corners/SPS Zone 16 Joint Fall Meeting, Volume 52, Number 14, BAPS.2007.4CF.E1.17

3. Anderson[S], L. B. and Wheeler, J. T., *Yang-Mills gravity in biconformal space*, Classical and Quantum Gravity 24 (2007) 475-496, http://arxiv.org/pdf/hep-th/0412293

4. Wheeler, J. T., *Gauging Newton's Law*, Canadian Journal of Physics, vol. 85, issue 4 (2007), pp. 307-344. http://arxiv.org/pdf/hep-th/0305017

5. Wehner[S], A. and Wheeler, J. T., *Biconformal MatterActions*, International Journal of Pure and Applied Mathematics, Vol. 30, No. 2 (2006), 207-224. http://arxiv.org/pdf/hep-th/0001061

6. Anderson[S], L. B. and Wheeler, J. T., *Quantum theory as a biconformal measurement theory,*

Int.J.Geom.Meth.Mod.Phys. 3 (2006) 315, (35pp.) http://arxiv.org/pdf/hep-th/0406159

7. Wheeler, J. T., *Not so classical mechanics – unexpected constants of the motion*, Einstein Centennial Review Article, invited review, Canadian Journal of Physics, Vol 83 (February, 2005) pp 91 - 138. http://arxiv.org/pdf/physics/0511054

8. Wheeler, J. T., *Biconformal supergravity*, in Quantum Theory and Symmetries, Proceedings of the 3rd Symposium, edited by P. C. Argyres, T. J. Hodges, F. Mansouri, J. J. Scanio, P. Suranyi, and L. C. R. Wijewardhana. (World Scientific, New Jersey, London 2004).

9. Margaret S. Dice, Jennifer L. Abbruzzese, James T. Wheeler, James R. Groome, Esther Fujimoto and Peter C. Rubin, *Temperature sensitive defects in paramyotonia congenita mutants R1448C and T1313M*, published in Muscle and Nerve. **(N.B. This author listing is not alphabetical).**

10. Anderson[S], L. B. and Wheeler, J. T., *Biconformal Supergravity and the AdS/CFT conjecture*, Nucl.Phys. B686 (2004) 285-309, http://arxiv.org/pdf/hep-th/0309111

11. Wheeler, J. T., *Biconformal supergravity*, Proceedings of the Seventh International Wigner Symposium. Hardcopy publication has been delayed, but the proceedings are published on the web at: http://www.physics.umd.edu/rgroups/ep/yskim/wpro01/wpro01.html

12. Wheeler, J. T., *String without strings*, Foundations of Physics, Vol. 30 No. 7 (2000) 1017-1091. http://arxiv.org/pdf/hep-th/9706209

13. Wehner[S], Andre and Wheeler, James T., *Conformal Actions in any dimension*, Nuclear Physics B 557 (1999) 380-406. http://arxiv.org/pdf/hep-th/9812099

14. Wheeler, J. T., *New conformal gauging and the electromagnetic theory of Weyl*, Journal of Mathematical Physics **39** (1) (January, 1998) pages 299-328. http://arxiv.org/pdf/hep-th/9706214

15. Wheeler, J. T., *Quanta without quantization*, Mod. Phys. Lett. A, Vol. 12, No. 29 (1997) 2175-2181, Received Honorable Mention for the 1997 General Relativity and Gravitation Awards for Essays on Gravitation. http://arxiv.org/pdf/hep-th/9705235

16. Wheeler, J. T., *Why Quantum Mechanics is Complex*, published by invitation in Bull. Astr. Soc. Ind. **25** (1997) 591-599, Received Honorable Mention for the 1996 General Relativity and Gravitation Awards for Essays on Gravitation. http://arxiv.org/pdf/hep-th/9708088

17. Wheeler, J. T., *Scale-invariant phase space and the conformal group*, Proceedings of the Seventh Marcel Grossman Meeting on General Relativity , R. T. Jantzen and G. M. Keiser, editors, World Scientific, London (1996) pp 457-459. http://arxiv.org/pdf/hep-th/9109033

18. Wheeler, J. T., *Photon fall at LIGO*, Proceedings of the Seventh Marcel Grossman Meeting on General Relativity , R. T. Jantzen and G. M. Keiser, editors, World Scientific, London (1996) 1631-1633.

19. Wheeler, J. T., H*orizons and singularities in static, spherically symmetric spacetimes*, Foundations of Physics, Vol. 25, No. 5, (1995) 645-679.

20. Wheeler, J. T., *Generalized Birkhoff Theorem*, Proceedings of the 5th Canadian Conference on General Relativity and Relativistic Astrophysics, edited by R. B. Mann and R. G. McLenaghan, World Scientific, London (1994) 125-129.

21. Wheeler, J. T., *A New Class of Electromagnetic Theories*, Proceedings of the 5th Canadian Conference on General Relativity and Relativistic Astrophysics, edited by R. B. Mann and

R. G. McLenaghan, World Scientific, London (1994) 469-472.

22. Kitaura[S], T. and Wheeler, J. T., *New Singularity in Anisotropic, Maximally Gauss-Bonnet Extended Cosmology*, Proceedings of the 5th Canadian Conference on General Relativity and Relativistic Astrophysics, edited by R. B. Mann and R. G. McLenaghan, World Scientific, London (1994) 417-420.

23. Kitaura[S], T., and Wheeler, J. T., *New singularity in anisotropic, time-dependent solutions to maximally Gauss-Bonnet extended gravity*, Phys. Rev D**48** (1993) 667-672. http://prola.aps.org/abstract/PRD/v48/i2/p667_1

24. Wheeler, J. T., SU(3) x SU(2) x U(1) *as the residual gauge group of the spacetime metric choice*, The Vancouver Meeting – Particles and Fields '91, edited by D. Axen, D. Bryman and M. Comyn, World Scientific (1992) 854-856.

25. Wheeler, J. T., SU(3) x SU(2) x U(1)SU(3)*: The residual symmetry of conformal gravity*, Mathematical Aspects of Classical Field Theory, Contemporary Mathematics, Am. Math. Soc., Edited by Mark J. Gotay, Jerold E. Marsden, & Vincent Moncrief (1992) 635-644. http://arxiv.org/pdf/hep-th/9109033

26. Wheeler, J. T., *Auxiliary field in conformal gauge theory*, Phys Rev D**44** (1991) 1769 - 1773. http://prola.aps.org/abstract/PRD/v44/i6/p1769_1

27. Hochberg, D. and Wheeler, J. T., and , Spacetime dimension from a variational principle, Phys. Rev. D**43** (1991) 2617 - 2621. http://prola.aps.org/abstract/PRD/v43/i8/p2617_1

28. Kitaura,[S] T. and Wheeler, J. T., *Anisotropic, time-dependent solutions in maximally Gauss-Bonnet extended gravity*, Nuc.Phys.B**355** (1991) 250 - 277. Scanned version in KEK library, http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?199008062

29. Wheeler, J.T., *Quantum measurement and geometry*, Phys.Rev.D**41** (1990) 431 - 441. http://prola.aps.org/abstract/PRD/v41/i2/p431_1 Scanned version at KEK library: http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?198905519

30. Wheeler, J. T., *Gravitationally squeezed light*, General Relativity & Gravitation, Vol **21**, No 3, March (1989) 293 - 305.

31. Wheeler, J. T., *26-Dimensional string from 4-dimensional geometry*, General Relativity & Gravitation, Vol 20, No 7, (July, 1988) 659-665. Scanned version at KEK library: http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?198704170

32. Wheeler, J. T., *Symmetric solutions to the maximally Gauss-Bonnet extended Einstein equations*, Nuc. Phys. B**273** (1986) 732-748. Scanned version at KEK library: http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?198606130

33. Wheeler, J. T., *Symmetric solutions to the Gauss-Bonnet extended Einstein equations*, Nuc. Phys. B**268** (1986) 737-746.

34. Freund, P. G. O., Oh, P. and Wheeler, J.T. *String induced space compactification*, Nuc. Phys. B**246** (1984) 371-380.

Other Research Reports
Available online, but not published in journals

35. Wheeler, J. T., *Extended Conformal Symmetry*, (Jan. 2000), 15 pp, http://arxiv.org/pdf/hep-th/0002068

36. Wehner[S], A. and Wheeler, J. T., *Actions for Biconformal Matter*, (Jan. 2000), 5 pp http://arxiv.org/pdf/hep-th/0001191

37. Wheeler, J. T., *Normal biconformal spaces*, (Jun, 1997) 34pp, http://arxiv.org/pdf/hep-th/9706215

38. Wheeler, James T., *SU(3)xSU(2)xU(1): The residual, metric-fixed symmetry group of conformal gauge theory*. Utah State University FTG preprint, FTG-105-USU, (Jun 1991) Scanned version available in the KEK library, http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?199108001

39. Wheeler, James T., *Heterotic String from four-dimensional geometry*, University of North Carolina IFP, IFP-298-UNC (Sept, 1987). Scanned version in KEK library: http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?198905519

40. Wheeler, James T., *A viable form of Weyl's theory*, University of North Carolina IFP, IFP-286-UNC (Sept, 1987). Scanned version in KEK library: http://ccdb3fs.kek.jp/cgi-bin/img/allpdf?198710144

Gravity Research Foundation Awards Essays
Competitive Gravity Essays

41. Wheeler, J. T., *Quanta without quantization*, written for the 1997 General Relativity and Gravitation Awards for Essays on Gravitation. Received Honorable Mention http://arxiv.org/pdf/hep-th/9705235

42. Wheeler, J. T., *Why Quantum Mechanics is Complex*, written for the 1996 General Relativity and Gravitation Awards for Essays on Gravitation. Received Honorable Mention. http://arxiv.org/pdf/hep-th/9708088

43. Wheeler, J. T., *Geodesics of mixed causal type*, written for the 1994 General Relativity and Gravitation Awards for Essays on Gravitation. Received Honorable Mention.

44. Wheeler, J. T., T*heory Independent Birkhoff theorem*, written for the 1993 General Relativity and Gravitation Awards for Essays on Gravitation. Received Honorable Mention.

45. Wheeler, J. T., *n-extended Weyl algebras*, written for the 1992 General Relativity and Gravitation Awards for Essays on Gravitation.

46. Wheeler, J. T., *New singularities in extended Kasner universes*, written for the 1991 General Relativity and Gravitation Awards for Essays on Gravitation.

47. Wheeler, J. T., *Gravitationally squeezed light*, written for the 1989 General Relativity and

Gravitation Awards for Essays on Gravitation. Received Honorable Mention.

48. Wheeler, J. T., *26-Dimensional string from 4-dimensional geometry*, written for the 1988 General Relativity and Gravitation Awards for Essays on Gravitation. Received Honorable Mention.

Seminars, Colloquia, Invited Lectures

ISU Physics Dept Colloquium	Hamiltonian mechanics and the nature of time	Oct 18, 2010
SPS Zone Meeting Keynote Address ISU Physics Department	From Sundials to Quantum Gravity	Apr 10, 2010
Space Dynamics Lab Lunch & Learn Presentation	Time	Aug 20, 09
USU Physics Dept. Colloquium	Time	Oct 28, 08
USU Physics Dept. Colloquium	Gauging Newton's Law	Apr 15, 03
U of Wisconsin Gen. Rel. Seminar (Milwaukee, WI)	Biconformal supergravity	Sep 30, 02
U of Wisconsin Gen. Rel. Seminar (Milwaukee, WI)	Biconformal gauge theory and general relativity	Mar 01
USU Great Issues Forum (Logan, UT)	Newton, Maxwell and Einstein Got It Wrong - The New Physics	Nov 10, 98
Utah Public Radio	The New Physics	Nov 6, 98
Doctoral Seminar Guest Speaker, USU Dept of Instr.Tech. (Logan, UT)	Physical Theory and Experiment	Nov, 98
8th Midwest Gravity Meeting (Fargo, ND)	Conformal actions invariant in any dimension	Sep 25-26, 98
USU Physics Dept. Colloquium (Logan, UT)	The geometry of quantum physics	Mar 10, 98
U of Utah Gen. Rel. Seminar (Salt Lake City, Utah)	Nonsingular black hole solutions in nonpolynomial gravity theories	Feb 17, 98
BYU Physics Dept. Colloquium (Provo, Utah)	The geometry of quantum physics	Nov 19, 97
U of Utah Field Theory Seminar (Salt Lake City, Utah)	Quanta without quantization	May 15, 97
U of Utah Gen. Rel. Seminar (Salt Lake City, Utah)	Gravitational gauge theory	Dec 4, 96
USU Physics Dept. Colloquium	Why Quantum Mechanics is Complex	Apr 2, 96
USU Physics Dept. Colloquium	Gravitational waves and photon fall at LIGO	Nov 94
USU Physics Colloquium	The propagation of gravity	Nov 2, 93
University of Utah	SU(3) from translationally extended conformal symmetry	Dec 91
USU Physics Colloquium	Quantum mechanics and Weyl geometry	Oct 91

USU Colloquium	A new approach to unification including an introduction to the standard model	Jul 91
USU Math Colloquium	Bell's inequalities, quantum mechanics & probability	Apr 92
Idaho State University	Geometric quantum theory	Feb 90
USU Colloquium	Geometry and quantum measurement	Jul 89
Eastern Illinois University	Quantum measurement and geometry	Mar 89
Swarthmore College	Gravitationally squeezed light	May 88
University of North Carolina	Distorting geometries	Jun 87
University of North Carolina	5 week Introduction to String Theory	Fall 86
Los Alamos National Laboratory	Extended spherically symmetric gravity	Feb 86
The University of Chicago	Symmetric Solutions to the Maximally Gauss-Bonnet Extended Einstein Equations	Jan 86

Contributed Conference Talks

Quantum Theory & Symmetries 6 (University of Kentucky)	Gravitational gauge theory and the existence of time	July 24, 2009
14th Midwest Gravity Meeting (Milwaukee,WI)	Quantum Mechanics in biconformal space: A measurement theory	Oct 15-16, 04
13th Midwest Gravity Meeting (Windsor, Ont, CA)	Gauging Newton's Law	Oct, 03
3rd International Symposium on Quantum Theory and Symmetries (Cincinatti, OH)	Biconformal Supergravity	Sept 10-14, 03
Dirac Centennial Conference	Biconformal supergravity (with Lara Anderson[S])	Fall 02
12th Midwest Relativity Meeting (Chicago, IL)	Biconformal supergravity	Sep 26-27, 02
9th Canadian Conference on General Relativity and Relativistic Astrophysics (Edmonton, Alberta)	Biconformal supergravity	May 24-26, 01
7th Int'l Wigner Symposium (College Park, MD)	Biconformal supergravity	Aug 24-29, 01
10th Midwest Relativity Meeting (Oakland, MI)	Recent progress in scale invariant gravity	Oct 27-28, 00
19th Texas Symposium on Relativistic Astrophysics (Paris, France)	Conformal actions in any dimension	Dec 14-18, 98
19th Texas Symposium on Relativistic Astrophysics (Paris, France)	New Conformal Gauging and the Electromagnetic Theory of Weyl	Dec 14-18, 98
19th Texas Symposium on Relativistic Astrophysics (Paris, France)	The Geometry of Quantum Physics	Dec 14-18, 98
13th Pac. Coast Gravity Meeting (Santa Barbara, CA)	String without strings	Mar 21-22, 97
Texas Symposium on General Relativity and Relativistic Astrophysics (Chicago)	A new conformal gauging	Dec 9 – 13
12th Pac. Coast Gravity Meeting (Salt Lake City, Utah)	A new gauging of the conformal group	Mar 22, 96
14th International Conference on General Relativity and Gravitation (Florence, Italy)	Normal biconformal spaces	Aug, 95
14th International Conference on General Relativity and Gravitation (Florence, Italy)	New conformal gauging and the electromagnetic theory of Weyl	Jun 28-Jul 4, 95
7th International Marcel Grossman Meeting (Stanford University)	Scale-invariant phase space and the conformal group	Jul 94
7th International Marcel Grossman Meeting (Stanford University)	Photon fall at LIGO	Jul 94
USU Field Theory Seminar	Photon fall at LIGO	Apr 13, 94
USU Field Theory Seminar	Causality violating spacetimes	Jan 94

Cornelius Lanczos International Centenary Conference (Raleigh, NC)	Singularity structures in static, spherically symmetric spacetimes	Dec 12-17, 93
Cornelius Lanczos International Centenary Conference (Raleigh, NC)	Palatini variation and field definitions in Weyl geometry (w/ J. Rankin)	Dec 12-17, 93
3rd Midwest Rel. Conf. (Oakland University)	Singularities in Static, Spherically Symmetric Spacetimes	Nov 5-6, 93
5th Canadian Conference on General Relativity and Relativistic Astrophysics (Waterloo, Ont.)	Generalized Birkhoff Theorem	May 13-15, 93
5th Canadian Conference on General Relativity and Relativistic Astrophysics (Waterloo, Ont.)	Extended electromagnetism	May 13-15, 93
5th Canadian Conference on General Relativity and Relativistic Astrophysics (Waterloo, Ont.)	Singularities and event horizons	May 13-15, 93
9th Pac. Coast Gravity Meeting (Santa Barbara, CA)	Extended electromagnetism	Mar 5-6, 93
USU Field Theory Seminar	Classical one-particle motion in Weyl geometry, Part I	Nov 4, 92
USU Field Theory Seminar	Classical one-particle motion in Weyl geometry, Part II	Nov 11, 92
UUSURTG, Logan	Weyl geometry as a quantum theory	Oct 92
13th International Conference on General Relativity and Gravitation (Cordoba, Argentina)	Conformal Gravity	Jun 28-Jul 4, 92
8th Pacific Coast Gravity Meeting (Salt Lake City)	Finitely Generated Extended Weyl Algebras	Mar 6-7, 92
UUSURTG, Logan	Research overview	Oct 91
APS, Particles & Fields (Vancouver, B.C.)	SU(3)XSU(2)XU(1): The residual gauge group of the spacetime metric choice	Aug 91
American Mathematical Society: Mathematical Aspects of Classical Field Theory (U. of Washington, Seattle, WA)	SU(3)XSU(2)XU(1): The residual, metric-fixed symmetry group of metric-extended conformal gauge theory	Jul 20-26, 91
USU Field Theory Seminar	Unified theories in physics, part II	Feb 12, 91
USU Field Theory Seminar	Unified theories in physics, part I	Feb 5, 91
USU Field Theory Seminar	A little discussion about time	Jan 8, 91
USU Field Theory Seminar	Freund-Rubin compactification in supergravity	Oct 9, 90
USU Field Theory Seminar	Fractional dimension	Oct 2, 90
APS, Washington, D.C.	Generalized Kasner solutions	Apr 90
12th International Conference on General Relativity and Gravitation, Boulder, CO	Conformal gauge theory	Jul 89
APS (Baltimore, MD)	Geometry and quantum measurement	May 1-4, 89
APS (Washington, D.C.)	Conformal gauge theory	Apr 89
APS (Baltimore, MD)	Gravitationally squeezed light	Apr 88

Other Workshops, Schools and Conferences

Twistor String Conference The Mathematical Institute (University of Oxford, Oxford, UK)	Jan 10-14, 2005
MW10 Parkerfest (Oakland, MI)	Oct 27-28, 2000
Chandrasekhar Conference (University of Chicago)	Dec 14, 1996
Internationall Centre of Theoretical Physics (Trieste, Italy) Spring School on Supersymmetry and Supergravity	April, 1984