*Curriculum Vitae of*

# Eric Arthur Myers

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## Professional Experience

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| Aug. 2017 to present | **Instructional Support Technician** Department of Physics and Astronomy, SUNY College at New Paltz, New York. Manage and maintain educational laboratories for introductory and advanced courses. Teach introductory physics labs. |
| June 2015, to May 2017 | **Assistant Professor**, Department of Physics and Nuclear Engineering, United States Military Academy, West Point, New York. Course Director and Instructor for Intermediate Classical Mechanics and Advanced Classical Mechanics. Instructor for calculus-based core physics. Guided student research; faculty advisor for Astronomy Club. |
| Nov 2014, to June 2015 | **Mathematics Teacher** at Duane Lake Academy in Pawling, New York. Taught 9th grade math using the Common Core curriculum, along with some Earth Science (meteorology) and computer programming. |
| Fall 2012, to Spring 2014 | **Visiting Assistant Professor/Lecturer**, Dept. of Physics and Astronomy, SUNY College at New Paltz, New York. Taught calculus-based General Physics, advanced optics, and elementary particle physics. Created a course for non-science majors on the physics of sound and music. |
| Spring 2012 | **Adjunct Instructor**, Marist College, Poughkeepsie, NY. *PHYS 108: Introduction to Cosmology*, for non-science students. |
| Fall 2009, Spring 2010 | **Adjunct Instructor**, Dutchess Community College, Poughkeepsie, NY. Night courses and labs in introductory college physics. |
| Oct 2008 to Jun 2009 | Physicist under contract to the Fermi National Accelerator Laboratory to develop the NSF funded project *Interactions In Understanding the Universe*, (I2U2) with the goal of making LIGO environmental data available to high school teachers and students for inquiry-driven science education using grid computing. |
| Spring 2008 | **Visiting Assistant Professor of Physics**, Bard College, New York Physics 142 - Introduction to Physics II - a calculus-based course in electricty and magnetism. |
| Oct. 2005 to Sept. 2008 | Physicist under contract to the LIGO Laboratory (managed by the California Institute of Technology) for the pilot phase of the NSF supported project *Interactions In Understanding the Universe* (I2U2). |
| 2005 to 2006 | **Adjunct Professor of Physics**, State University of New York at New Paltz. Taught undergraduate physics labs. |
| 2002 to 2005 | **Assistant Professor of Physics**, Vassar College, Poughkeepsie, NY. Member of the LIGO Scientific Collaboration (LSC) and of the team which |

created and deployed the Einstein@Home distributed computing project. Taught introductory and advanced physics courses, including the Modern Physics Laboratory, Thermodynamics and Statistical Mechanics, and General Relativity and Cosmology.

2000 to 2002
**Research Physicist**, Department of Physics, University of Michigan, Ann Arbor, Michigan. Calibration for the DØ experiment for Tevatron Run IIa at Fermilab, networking and Grid computing for the ATLAS experiment for the LHC at CERN; software and content production for the UM-ATLAS Collaboratory Project and Web Lecture Archive Project.

1997 to 2000
**Visiting Assistant Professor of Physics**, Department of Physics, University of Michigan, Ann Arbor, Michigan. Lecturer or discussion section instructor for introductory and intermediate physics courses.

1995 to 1997
**Lecturer**, and visitor to the High Energy Particle Theory Group, Department of Physics, University of Michigan, Ann Arbor, Michigan. Lecturer or discussion section instructor for introductory and honors physics courses.

1993 to 1995
**Visiting Assistant Professor of Physics**, Vassar College, Poughkeepsie, New York. Taught introductory and advanced physics. Developed a course in general relativity for undergraduates.

1992 to 1993
**Assistant Professor of Physics**, Parks College of Saint Louis University, St. Louis, Missouri. Taught physics (mechanics), math (algebra) and computer programming.

1989 to 1992
**Postdoctoral Fellow** in the Center for Relativity and Dept. of Physics, University of Texas at Austin. Research in numerical quantum gravity.

1987 to 1989
Visiting Research Associate in the Physics Department at Boston University, Boston, Massachusetts. Research using lattice field theory to study QCD, the interactions of cosmic strings, and the scattering of flux vortices in a superconductor.

1986 to 1989
**Postdoctoral Research Associate** at the Institute for Computational Studies, Department of Mathematics, Statistics, and Computer Science, Dalhousie University, Halifax, Nova Scotia, Canada.

1984 to 1986
**Postdoctoral Fellow** in the High Energy Theoretical Physics group, Brookhaven National Laboratory, Long Island, New York. Research in quantum effects in higher dimensional gravity.

Spring, 1984
**Acting Instructor of Physics**, Yale University, New Haven, Connecticut. Taught undergraduate physics labs.

1981-82
**Teaching Fellow** in Computer Science at Yale University, New Have, CT. Taught discussion sections in computer programming in APL.

Summer, 1981
Graduate student assistant at Yale University. Improved data analysis software for track fitting for the CRISIS detector for Fermilab experiment E570, including graphical depiction of the tracks.

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| Summer, 1980 | Graduate student assistant at the Wright Nuclear Structure Laboratory, Yale University. Analyzed data from experiments to measure nuclear stopping powers. |
| Spring, 1980 | Member of a Mathematics Clinic at the Claremont Graduate School, Claremont, California, which studied numerical modeling of overpower accidents in breeder reactors for the U.S. Department of Energy. |
| Summer, 1979 | Undergraduate research assistant at the University of Utah, Salt Lake City, Utah. Construction and testing of the "Fly's Eye" cosmic ray detector. |

## Education

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| Ph.D. | **Yale University**, Ph.D. in Physics (December, 1984). Thesis title: *"Calculation of the Gravitational Casimir Energy and Gauge Field Coupling Constants in non-Abelian Kaluza-Klein Theories."* |
| M.Phil. | **Yale University**, M.Phil. in Physics (May, 1983). |
| B.A. | **Pomona College**, B.A. in Mathematics and in Physics (double major, May, 1980). Mathematics comprehensive exams in Numerical Analysis and Real Analysis. Physics thesis title: *"Phase Transitions and the Theory of Critical Phenomena."* Graduation honors of *cum laude*, Phi Beta Kappa, and Pi Mu Epsilon. |

## Summer Schools

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| June, 1985 | Theoretical Advanced Study Institute (TASI) in elementary particle physics, at Yale University (9 June – 5 July, 1985). |
| August, 1983 | 26th Scottish Universities Summer School in Physics, on *"Common Problems and Techniques in Statistical and Particle Physics,"* at the University of Edinburgh, Scotland (August 1–20, 1983). |

## Consulting and other employment

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| Feb 2016, to May 2017 | Codemaster (part-tme) for NASA funded astrovisualization software project *"OpenSpace: An Engine for Dynamic Visualization of Earth and Space Science for Informal Education and Beyond,"* (see `www.OpenSpaceProject.com`), under a contract with the American Museum of Natural History, New York, NY. |
| July 2006 to April 2008 | Consultant to a major financial services company for two internal computing projects, one making use of the Berkeley Open Infrastructure for Network Computing (BOINC), and another constructing a small MPS cluster. |
| July 1996 | Computer security consultant to the Swedish Research Council for Engineering Sciences (Teknikvetenskapliga ForskningsRådet—TFR) and the Swedish Natural Science Research Council (Naturvetenskapliga ForskningsRådet—NFR), Stockholm, Sweden. |

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| Summers, 1980-82 | Staff Resources Specialist for User Services at the Yale University Computer Center, New Haven, Conn. |
| 1979–80 | Computer consultant and instructor in the college computer center at Pomona College, Claremont, California. |

## Languages

Human: English (native speaker), German (reading), Italian (enough to travel).

Computer: Python, PHP, Objective-C and iOS, C++, C, JavaScript, ROOT, Fortran, Xcode, git, CMake, Visual Studio, Jenkins, Subversion, mysql, Linux, Node.js, Arduino, Bourne and C shells, TeX, sed/awk/grep/m4, LISP, APL, Basic, C*, some R, some Mathematica, and some Matlab.

## Professional Membership

American Physical Society (APS)
American Association of Physics Teachers (AAPT) - New York Chapter
Physics Instructional Resource Association (PIRA)
LIGO Scientific Collaboration (LSC), Aug 2004 to June 2005.
Michigan Center for Theoretical Physics (Associate Member, 2000-2002).
Ann Arbor Relativity Group (1995-2002).

## Professional Service

Referee for *Physical Review* Journals.

Member of the local organizing committee for the conference "*Strings 2000*" at the University of Michigan, Ann Arbor (July 10-15, 2000).

Member of the local organizing committee for the first meeting of the American Physical Society Topical Group (now Division) on Computational Physics, at Boston University (June 5–8, 1989).

## Publications

### Refereed Journals

1. "Searches for Gravitational Waves from Known Pulsars with S5 LIGO Data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Astrophysical Journal **713** 671-685 (2010).

2. "Search for gravitational-wave bursts associated with gamma-ray bursts using data from LIGO Science Run 5 and Virgo Science Run 1," by the LIGO Scientific Collaboration (B. Abbott, et al.). Astrophysical Journal **715** 1438-1452 (2010).

3. "An upper limit on the stochastic gravitational-wave background of cosmological origin," by the LIGO Scientific Collaboration (B. Abbott, et al.). Nature **460**, 990-994 (2009).

4.  "LIGO: the Laser Interferometer Gravitational-Wave Observatory," by the LIGO Scientific Collaboration (B. Abbott, et al.). Rep. Prog. Phys. **72**, 076901 (2009).

5.  "Search for High Frequency Gravitational Wave Bursts in the First Calendar Year of LIGO's Fifth Science Run," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80**, 102002 (2009).

6.  "Search for gravitational-wave bursts in the first year of the fifth LIGO science run," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80**, 102001 (2009)

7.  "First LIGO search for gravitational wave bursts from cosmic (super)strings," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80**, 062002 (2009)

8.  "Search for gravitational wave ringdowns from perturbed black holes in LIGO S4 data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80** 062001 (2009)

9.  "Search for Gravitational Waves from Low Mass Compact Binary Coalescence in 186 Days of LIGO's fifth Science Run," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80**, 047101 (2009).

10. "Einstein@Home search for periodic gravitational waves in early S5 LIGO data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **80**, 042003 (2009).

11. "All-Sky LIGO Search for Periodic Gravitational Waves in the Early Fifth-Science-Run Data," ," by the LIGO Scientific Collaboration (B. Abbott, et al.) Phys. Rev. Lett. **102**, 111102 (2009).

12. "Search for Gravitational Waves from Low Mass Binary Coalescences in the First Year of LIGO's S5 Data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **79** 122001 (2009).

13. "The Einstein@Home search for periodic gravitational waves in LIGO S4 data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **79**, 022001 (2009).

14. "Observation of a kilogram-scale oscillator near its quantum ground state," by the LIGO Scientific Collaboration (B. Abbott, et al.). New Journal of Physics **11** (2009) 073032

15. "Search for Gravitational Wave Bursts from Soft Gamma Repeaters," by the LIGO Scientific Collaboration (B. Abbott, et al.), S. Barthelmy, N. Gehrels, K. C. Hurley, and D. Palmer, Phys. Rev. Lett. **101** 211102 (2008).

16. "First joint search for gravitational-wave bursts in LIGO and GEO600 data," by the LIGO Scientific Collaboration (B. Abbott, et al.) Class. Quant. Grav. **25**, 245008 (2008).

17. "Search of S3 LIGO data for gravitational wave signals from spinning black hole and neutron star binary inspirals," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **78**, 042002 (2008)

18. "Beating the spin-down limit on gravitational wave emission from the Crab pulsar," by the LIGO Scientific Collaboration (B. Abbott, et al.). Astrophysical Journal Letters, **683**, L45-L49 (2008); Erratum: Astrophysical Journal Letters, **706**, L203-L204 (2009).

19. "Implications for the Origin of GRB 070201 from LIGO Observations," by the LIGO Scientific Collaboration (B. Abbott, et al.). The Astrophysical Journal, **681**, 14191430 (2008).

20. "Search for Gravitational Waves Associated with 39 Gamma-Ray Bursts Using Data from the Second, Third, and Fourth LIGO Runs," by the LIGO Scientific Collaboration (B. Abbott, et al.), Phys. Rev. D, **77**, 062004 (2008).

21. "Search for gravitational waves from binary inspirals in S3 and S4 LIGO data," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D, **77**, 062002 (2008).

22. "All-sky LIGO search for periodic gravitational waves in the S4 data," by the LIGO Scientific Collaboration (B. Abbott, et al.). *Physical Review D* Phys. Rev. D, **77**, 022001 (2008).

23. "Searching for Stochastic Background of Gravitational Waves with LIGO," by the LIGO Scientific Collaboration (B. Abbott, et al.). Astrophys. J. **659**, 918-930 (2007).

24. "Search for gravitational-wave bursts in LIGO data from the fourth science run," by the LIGO Scientific Collaboration (B. Abbott, et al.). Class. Q. Gravity, **24**, 5343-5369 (2007).

25. "Upper limit map of a background of gravitational waves," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **76**, 082003 (2007).

26. "Searches for periodic gravitational waves from unknown isolated sources and Scorpius X-1: results from the second LIGO science run," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **76**, 082001 (2007).

27. "Search for gravitational wave radiation associated with the pulsating tail of the SGR 1806-20 hyperflare of 27 December 2004 using LIGO," by the LIGO Scientific Collaboration (B. Abbott, et al.). Phys. Rev. D **76**, 062003 (2007).

28. "Upper limits on gravitational wave emission from 78 radio pulsars," by the LIGO Scientific Collaboration (B. Abbott, et al.) and M. Kramer et al. Phys. Rev. D **76**, 042001 (2007).

29. "First cross-correlation analysis of interferometric and resonant-bar gravitational-wave data for stochastic backgrounds," by the LIGO Scientific Collaboration and the ALLEGRO Collaboration (B. Abbott, et al.) Phys. Rev. D **76**, 022001 (2007).

30. "Joint LIGO and TAMA300 search for gravitational waves from inspiralling neutron star binaries," by B. Abbott et al. (LIGO Scientific Collaboration) and T. Akutsu et al. (TAMA Collaboration). Phys. Rev. D **73**, 102002 (2006).

31. "Search for gravitational waves from binary black hole inspirals in LIGO data," by the LIGO Scientific Collaboration (B. Abbott, et al.) Phys. Rev. D **73**, 062001 (2006).

32. "Search for gravitational wave bursts in LIGO's third science run," by the LIGO Scientific Collaboration (B. Abbott, et al.) Class. Quant. Grav. **23**, S29-S39 (2006).

33. "Upper limits from the LIGO and TAMA detectors on the rate of gravitational-wave bursts," by the LIGO Scientific Collaboration (B. Abbott, et al.), Phys. Rev. D **72**, 122004 (2005).

34. "Upper Limits on a Stochastic Background of Gravitational Waves," by the LIGO Scientific Collaboration (B. Abbott, et al), Phys. Rev. Lett. **95** 221101 (2005).

35. "First all-sky upper limits from LIGO on the strength of periodic gravitational waves using the Hough transform," by the LIGO Scientific Collaboration (B. Abbott, et al.), Phys. Rev. D **72** 102004 (2005).

36. "Discrete and Continuous Mathematical Models of DNA Branch Migration," by Michael F. Bruist and Eric Myers, Journal of Theoretical Biology **220**, 139-156 (2003).

37. "Triple-Helical DNA as a Reversible Block of the Branch Point of a Partially Symmetric DNA Four-Arm Junction," A. W. Kirby, M. N. Gaskin, M. A. Antezania, and S J. Goodman, Eric Myers, and Michael F. Bruist, Journal of Molecular Biology **271**, 349 (1997).

38. "The Quantized $O(1,2)/O(2) \times Z_2$ Sigma Model has no Continuum Limit in Four Dimensions I. Theoretical Framework," Jorge DeLyra, Bryce DeWitt, See Kit Foong, Timothy Gallivan, Rob Harrington, Arie Kapulkin, Eric Myers, and Joe Polchinski, Phys. Rev. D **46**, 2527 (1992).

39. "The Quantized $O(1,2)/O(2) \times Z_2$ Sigma Model has no Continuum Limit in Four Dimensions II. Lattice Simulations," Jorge DeLyra, Bryce DeWitt, See Kit Foong, Timothy Gallivan, Rob Harrington, Arie Kapulkin, Eric Myers, and Joe Polchinski, Phys. Rev. D **46**, 2538 (1992).

40. "A Study of the Interaction and Scattering of Vortices in the Abelian Higgs (or Ginzburg-Landau) Model," by Eric Myers, Claudio Rebbi and R. Strilka, Phys. Rev. D **45**, 1355 (1992).

41. "The Unbounded Action and the 'density of states' in Nonperturbative Quantum Gravity," Eric Myers, Class. and Quantum Grav. **9**, 405 (1992). (An earlier version of this paper received Honorable Mention in the 1991 Gravity Research Foundation awards competition.)

42.  "The Density of States Method and the Velocity of Sound in Hot QCD," S. Huang, Eric Myers, and J. Potvin, Z. Phys. C **50**, 221 (1991).

43.  "Dynamical Interactions of Cosmic Strings," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, J. Comp. Phys. **88**, 467 (1990).

44.  "Dynamical Interactions of Superconducting Flux Vortices," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, J. Comp. Phys. **81**, 481 (1989).

45.  "Numerical Simulation of Cosmic Strings and Flux Vortices in Superconductors on the ETA-10," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, Comp. Phys. Comm. **54**, 273 (1989).

46.  "Critical Slowing Down in Microcanonical Ising Dynamics," R.C. Brower, K.J.M. Moriarty, Eric Myers, P. Orland and P. Tamayo, Phys. Rev. B **38**, 11471 (1988).

47.  "Dynamical Interactions of Cosmic Strings and Flux Vortices in Superconductors," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, Physics Letters B **207**, 411 (1988).

48.  "On the Interpretation of the Energy of the Vacuum as the Sum over Zero-Point Energies," Eric Myers, Phys. Rev. Lett. **59**, 165 (1987).

49.  "Testing the Surrogate Zeta-Function Method," A. Chodos and Eric Myers, Can. J. Phys. **64**, 633 (1986).

50.  "The Gravitational Casimir Energy in Even Dimensions," Eric Myers, Phys. Rev. D **33**, 1563 (1986).

51.  "The Gravitational Casimir Energy in Non-Abelian Kaluza-Klein Theories," A. Chodos and Eric Myers, Phys. Rev. D **31**, 3064 (1985).

52.  "Gravitational Contribution to the Casimir Energy in Kaluza-Klein Theories," A. Chodos and Eric Myers, Ann. Phys. **156**, 412 (1984).

53.  "Quantum Instability of Dimensional Reduction," T. Appelquist, A. Chodos and Eric Myers, Phys. Lett. B **127**, 51 (1983).

## Conference Reports and Proceedings

1.  "Why a Particle Physicist is Interested in DNA Branch Migration," Eric Myers and Michael F. Bruist, Nucl. Phys. B (Proc. Suppl.) **53**, 856 (1997).

2.  "Noncompact Nonlinear $\sigma$-models and Numerical Quantum Gravity," Eric Myers, B. DeWitt, R. Harrington and A. Kapulkin, Nucl. Phys. B (Proc. Suppl.) **20**, 744 (1991).

3.  "Lattice Quantization of the $O(1,2)/O(2) \times Z_2$ Sigma Model in 4 Dimensions," B.S. DeWitt, Eric Myers, J. deLyra, S.K. Foong, T. Gallivan R. Harrington, and A. Kapulkin, in *Quantum Gravity (Proceedings of the Fifth Seminar),* edited by M.A. Markov, V.A. Berezin and V.P. Frolov (World Scientific, Singapore, 1991), pp. 18–26.

4. "Information Optimization for Monte Carlo Data and Application to High-Temperature Quantum Chromodynamics," S. Huang, K.J.M. Moriarty, Eric Myers and J. Potvin, in *Supercomputing '90* (Institute of Electrical and Electronic Engineers, Washington, D.C., 1990), pp. 742–746.

5. "An Optimization Scheme for Monte Carlo Analysis and Application to Hot Hadronic Matter Thermodynamics," S. Huang, K.J.M. Moriarty, Eric Myers and J. Potvin, in *Supercomputing Symposium '90*, edited by D. Peltier (Ecole Polytechnique – Université de Montréal, Canada, 1990), pp. 181–196.

6. "Using Histograms in the Study of the Thermodynamics of QCD at Finite Temperature," S. Huang, K.J.M. Moriarty, Eric Myers and J. Potvin, Nucl. Phys. B (Proc. Supl.) **17**, 281 (1990).

7. "Evolution and Interaction of Cosmic Strings and Flux Vortices in Superconductors," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, in *Frontiers of Nonperturbative Field Theory*, edited by Z. Horvath, L. Palla and A. Patkós (World Scientific, Singapore, 1989) pp. 19–31.

8. "Dynamical Interactions of Cosmic Strings," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, in *Proceedings of the Storrs Meeting* (DPF '88), edited by K. Haller, *et al.* (World Scientific, Singapore, 1989) pp. 892–897.

9. "Interactions of Cosmic Strings," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, in *Cosmic Strings: the Current Status*, (Proceedings of the Workshop on Cosmic Strings, May 6–7, 1988, Yale University), edited by F.S. Accetta and L.M. Krauss (World Scientific, Singapore, 1989).

10. "Numerical Simulation of Cosmic String Interactions," K.J.M. Moriarty, Eric Myers, and Claudio Rebbi, in *Proceedings of the Third International Conference on Supercomputing*, Boston, Mass., May 15–20, 1988.

11. "The Multigrid Method for Fermion Calculations in Quantum Chromodynamics," R.C. Brower, Eric Myers, Claudio Rebbi, and K.J.M. Moriarty, in *Proceedings of the Third Cooper Mountain Conference on Multi-grid Methods*, April 6–10, 1987, Cooper Mountain, Colorado.

12. "Spontaneous Compactification in Seventeen Dimensions," A. Chodos and Eric Myers, in *Proceedings of the Eighth Johns Hopkins Workshop in Problems in Particle Theory,* Edited by G. Domokos and S. Kovesi-Domokos, (World Scientific, Singapore, 1984).

### Reports and Reviews

1. "A Low Cost Duffing Oscillator," David Meer, Eric Myers, Richard Halpern. arXiv:2112.14154 [nlin.CD]

2. "The Web Lecture Archive Project: The Development of a Web-Based Archive of Lectures, Tutorials, Meetings and Events at CERN, the Eurpoean Laboratory for Particle Physics," Nora Bousdira, Steven Goldfarb, Eric Myers, Homer A.

Neal, Charles Severance, Mick Storr, and Giosué, Vitaglione. CERN-OPEN-2001-066/UM-ACP-2001-003.

3.   "FORTRAN Programming for Physics and Astronomy — an on-line course," available at `http://www.spy-hill.net/~myers/fortran/`.

4.   Review (with Cécile DeWitt-Morette) of *Mathematical Analysis and Numerical Methods for Science and Technology* by Robert Dautray and Jacques-Louis Lions (Springer-Verlag, New York, 1990), in *Physics Today*, December 1991, pp. 72–73.

5.   Review of *An Introduction to Kaluza-Klein Theories*, Edited by H.C. Lee [Proceedings of the Workshop on Kaluza-Klein Theories at Chalk River/Deep River, Ontario, Canada, August, 1983] in *American Scientist*, **74**, 424-425, 1986.

6.   "TEXsis: TEX Macros for Physicists," Eric Myers and F.E. Paige, Manual for the TEXsis software package, available from `http://www.texsis.org`.

7.   "Calculation of the Gravitational Casimir Energy and Gauge Field Couplings in Non-Abelian Kaluza-Klein Theories," Ph.D. thesis (unpublished), Yale University, 1984.

8.   "Nuclear Safety Code Study," C. Jackson, K. Abumansoor, Eric Myers, D. Jesperson, E. Cramer, B. O'Reilly and B. Carmichael. Claremont Graduate School Mathematics Clinic report to the U.S. Department of Energy, June, 1980.

### Photo and Video Credits

1.   Computer simulation of a pile of sand (a cellular automaton demonstrating self-organized criticality) on a Connection Machine 2. Two photos in *Art Journal*, **68**, pg 89 (2009).

2.   Director and Producer for "Introduction to GEANT4," a series of lectures given in February 2001 at the University of Michigan by Andrea dell'Acqua of CERN, and prepared for the Web Lecture Archive Project (www.wlap.org), on the use of the GEANT4 software for simulating the passage of particles through matter.

3.   Computer simulation of a pile of sand (a cellular automaton demonstrating self-organized criticality) on a Connection Machine 2. Sequence of five photos in *GEO Wissen* magazine, 2 March 1992, pp 42–43.

4.   Computer simulation of a pile of sand (a cellular automaton demonstrating self-organized criticality) on a Connection Machine 2. Single photo in *Scientific American* magazine, January 1991, pg. 48.

5.   Computer simulation of quenched QCD on a $16 \times 16 \times 32 \times 4$ lattice showing domain formation, by Eric Myers, Jean Potvin, and Claudio Rebbi, in "Physics on the Connection Machine," a video produced by the Boston University Physics Department, July, 1989.

6.   Computer simulation of self-ordered percolation, modeling the spread of a slow disease or a fast forest fire, on a Connection Machine 2, by Brond Larson and

Eric Myers, in "From Atoms to Forest Fires," a video produced by the Boston University Physics Department, July 1989.

## **Lectures Given** (abreviated list)

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| April, 2008 | *"Einstein@Home: Searching for Ripples in Space-Time with your Home Computer*, invited talk at a meeting of the Amateur Astronomers Association of New York, at the American Museum of Natural History, New York, New York (11 April 2008). |
| April, 2007 | *"LIGO and I2U2: Making LIGO Physical Environment Data Available for Discovery-based Learning*," Invited talk at the joint meeting of the New York sections of the American Physical Society (APS) and American Association of Physics Teachers (AAPT), held at the U.S. Military Academy at West Point (14 April 2007). |
| October, 1994 | Two invited talks at the workshop *Topological Defects: Numerical Approaches*, at the Isaac Newton Institute, Cambridge University, England (October 12–14, 1994). |
| June, 1993 | Lecturer, College on Computational Physics, held at the International Centre for Theoretical Physics, Trieste, Italy (May 24 – June 11, 1993). |
| October, 1990 | *"Nonperturbative Quantum Gravity*," Physics Colloquium, University of Texas at Austin, (3 October, 1990) |
| June, 1989 | Delivered a series of 8 lectures on parallel computing and the Connection Machine 2 supercomputer in the Physics Department of the Bergische Universität in Wuppertal, West Germany (June 12–23, 1989). |
| January, 1988 | Lecturer, Second School on Advanced Techniques in Computational Physics, held at the International Centre for Theoretical Physics, Trieste, Italy (January 18 – February 12, 1988). |
| October, 1986 | Instructor, First School on Advanced Techniques in Computational Physics, held at the International Centre for Theoretical Physics, Trieste, Italy (October 6–28, 1986). |

## **Research Interests**

Gravitational waves; Quantum effects in General Relativity, and problems related to developing a quantum theory of gravity; classical General Relativity and related theories (such as torsion); Effects of relativity on satellites and space probes; Topological defects in field theories (specifically cosmic strings and flux vortices in superconductors); Lattice field theory; Interesting problems in mathematical and computational physics.