

BRUCE GREGORY THOMPSON, Ph.D.

Department of Physics

Ithaca College, Ithaca, NY 14850

Tel: W (607) 274-3984, E-mail: bthompso@ithaca.edu

Formal Education:

Ph.D. - Cornell University, May 1982

Field of Applied and Engineering Physics

Research Area: Electromagnetic Geophysics

M.S. - Cornell University, May 1980

Field of Applied and Engineering Physics

B.A. with Distinction - University of Colorado, May 1972

Major Field: Physics, Phi Beta Kappa

Professional Experience:

Associate Professor – Ithaca College Department of Physics (Fall 2008 – Present)

Chair of the Physics Department - (June 2006 – August 2009) (Acting Chair Fall 2004)

Assistant Professor - Ithaca College Department of Physics (Fall 2002 – Spring 2008)

I am continuing as a full time faculty member in the Physics Department where I have been responsible for teaching a wide variety of courses for majors and non-majors, have guided undergraduate research projects and served the department and college.

Assistant Professor - Ithaca College Department of Physics – Temporary (1995 - 2002)

I assisted the department and college by teaching over 50 courses (14 different), developing a new course (Phys 119), organizing 16 seminars, sponsoring 2 Dana Fellows and 6 students in undergraduate research, organizing 10 observatory open houses, serving on the CP Snow Committee, and refurbishing the machine shop.

Consultant - Biri Systems (1991 - Present)

Biri Systems provides electronic hardware and software design for solar energy and cellular telephone power systems and technical consulting for other industries.

President of the Board of Directors - Sciencenter (May 1990 - May 1993)

During this period of time, I was part of the leadership that guided the growth of the Sciencenter from a one employee, store-front, hands-on science discovery center to a major influence in the lives and education of the people in the region housed in our own volunteer built building. I joined the Board of Trustees in 1985 and stepped down in 2005. I continue to be active serving on the Advisory Board and the Long Range Planning and Exhibits committees.

Co-founder and Vice President - Vector Magnetics Inc. (March 1985 - May 1991)

Vector Magnetics is an oil field service company specializing in electromagnetic solutions to well logging problems. In addition to general company leadership and management, my responsibilities included rendering services in the field, research and development, electronic hardware and software development, mechanical hardware development, on site equipment operation, data analysis, report writing and client presentations. I participated in the successful control of 21 blowout wells worldwide.

Research Scientist - Cornell University (January - May 1987)

I was responsible for planning, grant writing and execution of National Science Foundation sponsored deep crustal geomagnetic sounding experiments in New Hampshire.

Co-owner - Sea Search Research (1985-1987)

Sea Search Research was founded to develop electromagnetic solutions to undersea exploration problems.

Instructor - Cornell University (September 1983 - May 1987)

Together with Professor Kuckes, I was responsible for course development and lectures for EP 264, a new course in Applied Physics on the use of microcomputers in the physics laboratory. The course is still offered at Cornell using our textbook published by Cambridge University Press.

Postdoctoral Associate - Cornell University (May 1982 - May 1985)

I conducted deep crustal electromagnetic sounding experiments. (See Research Scientist appointment described above.)

Instructor - Cornell University (June, July 1981; June, July 1982; June, July 1983)

I taught the Summer Session of Analog and Digital Electronics (EP363) for Engineering Coop students.

Research Assistant - Cornell University (May 1977 - Aug 1978; May 1979 - Apr 1982)

I was responsible for planning, construction and execution of National Science Foundation sponsored geomagnetic sounding experiments in the Adirondacks and Georgia.

Teaching Assistant - Cornell University (September 1978 - May 1979)

I assisted in teaching introductory courses in the Physics Department.

Land Surveyor - Boulder, Colorado and Auburn, New York (1972 - 1976)

NSF Undergraduate Research Assistant - University of Colorado (Summer 1971)

I assisted in the development of an X-ray fluorescence system at the cyclotron to test water samples for heavy elemental content for pollution studies in Colorado.

Courses taught at Ithaca College:

Course	Description
101LR	Introductory Physics I - Lab
102LR	Introductory Physics II - Lab
114	Introduction to Research
117	Introductory Physics for majors - (calculus)
118	Introductory Physics for majors - (calculus)
119	Intro Lab for majors - cooperative learning
120	Freshman lab for majors
174	Solar System Astronomy
175	Stars, Galaxies, and the Universe
176	Solar System Astronomy lab
225	DC and AC Electronics
326	Analog and Digital Electronics
305	Electromagnetism
311	Analytical Mechanics
360	Intermediate Laboratory
455	Electrodynamics
299	Independent Research – Various students
399	Independent Research – Various students
499	Independent Research – Various students

Research Work in progress:Current grant and study:

P. Wrege, B. Thompson, C. Clark, *The effects of oil exploration on forest elephants in Loango National Park*, Gabon, International Fund for Animal Welfare (IFAW) December 2006, \$39,000. Extension by the U.S. Fish and Wildlife Administration, December 2007, \$12,000. In March 2007, Nik Batruch and I traveled to Gabon and installed 10 listening posts. March 2008, Nik and I are analyzing the data for significant seismic signals and correlate them with acoustic signals. Publication expected 2009.

Study in progress:

J. Olson (IC'11) and B. Thompson, *A MOT for IC*, Summer 2009 - present, sponsored by Dana Internship program.

Publications:

Jonas Contakos ('00), Les Carlton, **Bruce Thompson**, Rick Suddaby (Athletics) "The Physics of a Gymnastics Flight Element", *The Physics Teacher*, 47, 355-361, September, 2009. Issue cover photo featured our paper.

M. Sullivan, **B. Thompson** and A. Williamson (IC'05), *An experiment in the dynamics of thermal diffusion*, *Am. J. Phys.*, **76**, 637-642, July 2008.

M. Sipos (IC'08) and **B. Thompson**, *Electrodynamics on a grid: The finite difference time domain method*, special issue of *Am. J. Phys.* on computational physics, **76**, 464-469, April 2008.

B. Thompson, *March of the Planets*, *The Physics Teacher*, **45**, 369-371, September 2007 with on line supplements.

B. Thompson and T. Yeelin (IC'07), *Duplicity in 16 Piscium Confirmed from Its Occultation by 7 Iris on 2006 May 5*, *Publications of the Astronomical Society of the Pacific (PASP)*, **118**, 1648-1655, December 2006.

Thompson, Bruce G., *Using retrograde motion to understand and determine orbital parameters*, *Am. J. Phys.*, **73**, 1023-1029, November 2005.

Thompson, B. G. and Smith, P. A., *An experiment in rotational motion with linear and quadratic drag*, *Am. J. Phys.* **72**, 839-842, June 2004.

F. Leraand, J.W. Wright, M. Zachary, **B. Thompson**,
Relief Well Planning and Drilling for a North Sea Underground Blowout,
 Journal of Petroleum Technology, p266-273, March 1992.

A.F. Kuckes, A. Nekut, **B.G. Thompson**,
A geomagnetic scattering theory for evaluation of earth structure,
 Geophys. J. R. astr. Soc., **83**, 319-330 (1985)

B. Thompson, A. Nekut, A.F. Kuckes,
A Deep Crustal Electromagnetic Sounding in the Georgia Piedmont,
 Journal of Geophysical Research, **88**, 9461-9473 (1983)

Books:

B.G. Thompson and A.F. Kuckes, *IBM-PC in the Laboratory*
 A textbook for a unique applied physics laboratory course,
 Cambridge University Press
 Hardback edition 1989 (out of print)
 Paperback edition 1992 (in print).
 Reviewed in Am. J. Phys. **59**, 863, September 1991.

A.F. Kuckes and **B.G. Thompson**, *Apple II in the Laboratory*
 Cambridge University Press, 1987 (out of print)
 Reviewed in Am. J. Phys. **56**, 862, September 1988.

Contributed Occultation Observations:

The following observations were submitted to the database of stellar occultations by asteroids maintained by the International Occultation Timing Association (IOTA) for use in determination of asteroid sizes and shapes. These observations are forwarded to the Minor Planet Center under IAU observatory code 244 for use in determination of asteroid orbits. Also noted are publications where these observations have been used. The observations whose result is “miss” did not show an occultation but are valuable in defining the shape of the asteroid.

Date	Asteroid	Star	Result	Personnel and comments
2007.05.24	471 Papagena	TYC1965:0002	miss	Thompson, Yeelin, Briotta
2006.10.09	200 Dynamene	TYC5230:1513	9.96 s	Thompson and Yeelin
2006.10.03	25 Phocaea	HIP115725	6.24 s	Thompson and Yeelin

Date	Asteroid	Star	Result	Personnel and comments
2006.05.05	7 Iris ^a	16 Piscium	Double!	Thompson and Yeelin; Published in PASP, Dec 06
2005.11.02	48 Doris	TYC640:462	miss	Thompson and Yeelin
2005.07.12	204 Kallisto	SAO127194	3.70 s	Thompson and Yeelin
2005.06.29	1212 Francette	TYC5599:703	miss	Thompson and Yeelin; recorded 3° from horizon
2005.06.08	2183 Neufang		miss	Thompson and Yeelin
2005.06.01	1108 Demeter		miss	Thompson and Yeelin
2005.04.12	1847 Stobbe	HIP60566	miss	Thompson, Yeelin, Whelan
2005.04.02	8 Flora	UCAC40508585	miss	Thompson, Yeelin, Whelan
2005.03.17	635 Vundtia	GSC756:966	miss	Thompson and Yeelin
2004.09.12	914 Palisana ^b	SAO36280	14.51 s	Thompson, Keller, Whelan; Published in Sky & Telescope, Aug 05
2004.07.03	64 Angelina	TYC121501306	miss	analysis for G. Lyzenga, Harvey Mudd College
2003.01.15	371 Bohemia	TYC12090124	miss	Thompson
2002.09.07	10 Hygiea	TYC12440595	106.56 s	Thompson
2002.06.21	354 Eleonora	TYC51210173	11.28 s	Thompson; light curve also recorded and significant
2001.10.12	222 Lucia	GSC622:287	miss	Thompson
2000.07.17	1300 Marcelle		miss	B. & N. Thompson
1999.10.27	604 Tekmessa	HIP4763	miss	Thompson
1999.10.01	554 Peraga ^c	ACT1885 0275	miss	Thompson; Published in Sky & Telescope, Feb 2000

Footnotes:

- a) **B. Thompson** and T. Yeelin (IC'07), *Duplicity in 16 Piscium Confirmed from Its Occultation by 7 Iris on 2006 May 5*, Publications of the Astronomical Society of the Pacific (PASP), **118**, 1648-1655, December 2006.
- b) Dunham, D., Sky & Telescope, August 2005, p68-71. Publication of the occultation by 914 Palisana with our observation
- c) Dunham, D., Sky & Telescope, February 2000, p100-106. Publication of the occultation by 554 Peraga with our observation

Presentations and Conference Proceedings:

M.C. Sullivan, B.G. Thompson, “Finding thermal conductivity and specific heat via thermal diffusion in rods,” American Association of Physics Teachers Topical Conference on Advanced Laboratories, Ann Arbor, MI 2009.

Contakos, J., Thompson, B., Suddaby, R., & Carlton, L.G. (May, 2008). *The analysis of a gymnastics flight element on the women’s uneven parallel bars*. The American College of Sports Medicine, Indianapolis, IN.

B. Thompson – *Ithaca College Analog Electronics Laboratory Manual*, May 2008

- Made available on the web, as of 2008.09.26 downloaded 67 times

B. Thompson and T. Yeelin (IC’07),

Occultation of 16 Piscium by 7 Iris,

Annual Meeting of the International Occultation Timing Association (IOTA 2006), Mt. Cuba, Delaware, September 30 and October 1, 2006.

- Oral presentations by Thompson and Yeelin.

B. Thompson and M. Sullivan,

Dynamics of heat flow in a metal rod: an experiment,

Summer Meeting of the American Association of Physics Teachers (AAPT), Syracuse, NY, June 30-July 3, 2006.

- Oral presentation
- Poster presentation and demonstration apparatus

B. Thompson,

Introducing undergraduates to modeling dynamical systems using Matlab,

18th Annual International Conference on Technology in Collegiate Mathematics (ICTCM-18), Orlando, FL, March 18, 2006.

- Oral presentation
- Publication in electronic proceedings
- Web publication of files and Matlab computer code for download, as of 2008.09.26 downloaded 230 times

B.G. Thompson,

Astronomy Laboratory Ideas,

Proceedings from the 1998 Astronomical Society of the Pacific Symposium on Teaching Astronomy to Non-Science Majors, Albuquerque, NM, June 30 - July 2, 1998

T.D. Hund, and B. Thompson,
Amp-Hour Counting Charge Control for PV Hybrid Power Systems,
Proceedings of the 26th IEEE Photovoltaic Specialists Conference, Anaheim, CA,
October, 1997.

J. Batton and B. Thompson,
An Improved Method for Viscosity/Temperature Compensation,
Proceedings of the 41st Annual ISA Analysis Division Symposium, Vol 29, p57-62, 21
Apr 1996.

F. Leraand, J.W. Wright, M. Zachary, B. Thompson,
Relief Well Planning and Drilling for a North Sea Underground Blowout,
Society of Petroleum Engineers paper **SPE 20420**, 1990 SPE Annual Technical
Conference and Exhibition

B. Thompson, *Drilling guidance for relief wells*,
Invited presentation,
Canadian Association of Drilling Engineers Meeting, Calgary, Alberta, April 21-23,
1987.

A.F. Kuckes, B.G. Thompson, C. West
An ELREC Log in the Vicinity of a Salt Dome,
Presented at the Society of Petroleum Engineers Annual Meeting, 1986

B.G. Thompson,
A geomagnetic scattering theory for evaluation of earth structure,
Presented at the Fall Meeting of the American Geophysical Union, 1984.

B.G. Thompson
*Correspondence of Low Electrical Resistivity and High Seismic Reflectivity Zones in the
Continental Crust: Evidence from the Georgia Piedmont and Adirondacks*,
Meeting abstract, EOS, **64**, No.18, (1983).

B. Thompson and A.F. Kuckes,
*High Electrical Conductivity in the Continental Crust: Controlled Source Sounding
Evidence from Eastern North America*,
Meeting abstract, EOS, **64**, 692, (1983)

B. Thompson, *Electrical Studies of the Continental Crust*
Invited presentation,

Cornell Craton Workshop: Cratonization Processes and the North American Shield and Platform, Cornell, April 29-30, 1983.

B. Thompson

A Mid-crustal increase in Electrical Conductivity in the Georgia Piedmont,
Presented at the Fall Meeting of the American Geophysical Union, 1982.

B. Thompson, A. Nekut, A.F. Kuckes,

Controlled Source Electromagnetic Induction Sounding in the Georgia Piedmont,
Presented at the Spring Meeting of the American Geophysical Union, 1981.

Project Reports:

P. Wrege, B. Thompson, Elizabeth Rowland, *Effects of oil exploration on forest elephants in Loango National Park, Gabon*, Final Report, US Fish and Wildlife Service, 20xx.

P. Wrege, B. Thompson, Nikolas Batruch, Elizabeth Rowland, *Effects of oil exploration on forest elephants in Loango National Park, Gabon*, Final Report, International Fund for Animal Welfare (IFAW), May 2008

B. Thompson, *Charge Control and Data Logging for Photovoltaic Systems*, Florida Solar Energy Center, May 1998

B. Thompson, *Amp Hour Charge Control for Photovoltaic Systems*, Sandia Laboratories, October 1997.

C. Trautmann, B. Thompson, R. Mandl, W. King,

Comparison of Gas-Fired and Electrical Air Conditioning Systems in Central New York,
Project report to NYSEG, 1994.

B. Thompson,

Wellspot™ logging reports for projects for TXO, Chevron, Sun Oil, Elf, Consol Coal, CNG Transmission, Marathon Oil, Shell Oil, Texaco, Saga Petroleum, Amoco Oil, Mobil Oil, ONGC India, Corpoven, Eastman Christensen, and others, 1985-1992.

Outreach Presentations:

M. Thompson and B. Thompson, *Listening to Elephants*, Sciencenter, July 6 & 15, 2006.

B. Thompson, *Elephant Vibrations*, Sciencenter, May 20, 2004.

B. Thompson, *Elephants + Physics = ???: The Elephant Seismic Project*, The Physics Café, Ithaca College, February 10, 2004.

B. Thompson and Evan Salim ('03), *A Foucault Pendulum: the Earth Turns!*, Construction and demo in Center for Natural Sciences, April 30, 2001.

B. Thompson, *Let's Look Up Instead of Down*, Invited Speaker, Bottom Time Adventures, Silver Bank, Dominican Republic, February 12, 2001.

B. Thompson, *Ahoy! The Physics of Treasure Hunting*, IC Physics Seminar, December 10, 2000.

Patent:

US Patent Number 4845434, Thompson and Kuckes,
Magnetometer Circuitry for use in Bore Hole Detection of AC Magnetic Fields

Published software currently in use:

EarthMag (1992) – A program for Macintosh computers to calculate Earth's magnetic field anywhere on the globe. Used in the oil industry for directional drilling coordination.

Ithaca College Student Projects Directed:

Year	Term	Activity	Person	Presentation
1997	Summer	IC Dana Fellow - Sciencenter	Matt Anderson	
1999	Summer	IC sponsored Sciencenter Intern	Bettina Schimansky	Dept Seminar
1999	Fall	IC Dana Fellowship - Sound Colors	Michelle Fura	
2000	Spring	IC Dana Fellowship - Sound Colors	Michelle Fura	Dept Seminar
2000	Spring	Reaction Time Tester Exhibit	Evan Salim	Sciencenter
2000	Spring	Biomechanical Study of a Piked Jager	Jonas Contakos	
2001	Spring	Foucault Pendulum in CNS	Evan Salim	Public demo

Year	Term	Activity	Person	Presentation
2001	Fall	Elephant Seismic (ESP)	Jamie deGregory	
2002	Spring	Elephant Seismic (ESP)	Jamie deGregory	Whalen
2002	Fall	Low Noise Amplifiers (ESP)	Matrika Bhattarai	
2003	Spring	Low Noise Amplifiers (ESP)	Matrika Bhattarai	Whalen, ECSC
2003	Spring	Heat Flow in Copper	Kyle McMann	Whalen, ECSC
2003	Spring	Chaotic Pendulum: Sim & Reality	Evan Salim	Whalen, ECSC
2003	Summer	Seismic Sensors (ESP)	Matrika Bhattarai	
2003	Summer	Seismic Analysis (ESP)	Alex Williamson	
2003	Fall	Seismic Sensors (ESP)	Matrika Bhattarai	Dept Seminar
2003	Fall	Seismic Analysis (ESP)	Alex Williamson	Dept Seminar
2004	Spring	Seismic Sensors (ESP)	Matrika Bhattarai	Whalen
2004	Spring	Seismic Analysis (ESP)	Alex Williamson	Whalen
2004	Summer	IC Sponsored Sciencenter Intern	Natalie Burek	
2004	Fall	X-ray apparatus interface design	Maksim Sipos	
2005	Spring	Asteroidal Occultations	Tayza Yeelin	
2005	Spring	Heat Flow in Copper and Gold	Alex Williamson	Whalen
2005	Summer	Asteroidal Occultations	Tayza Yeelin	
2005	Fall	Video codecs for high quality	Kris Georgiev	
2005	Fall	Asteroidal Occultations	Tayza Yeelin	Dept Seminar
2005	Fall	Ground shaker engineering	Dan Varney	
2006	Spring	Asteroidal Occultations	Tayza Yeelin	Whalen
2006	Spring	Audio circuits for extended frequency	Richard Levengood	
				Dept. Seminar,
2006	Summer	IC Dana Fellow - Sciencenter	Lia Stelljes	APS-Rochester
2006	Fall	Numerical Electrodynamics	Maksim Sipos	
2006	Fall	Asteroid Occultations	Tayza Yeelin	IOTA-Mt. Cuba
2006	Fall	Elephant Seismic - shaker	Nik Batruch	
2007	Spring	Asteroid Occultations	Tayza Yeelin	Whalen
2007	Spring	Elephant Seismic - field work, Gabon	Nik Batruch	Dept Seminar
2007	Spring	Numerical Electrodynamics	Maksim Sipos	
2007	Summer	Elephant Seismic – field data analysis	Nik Batruch	
2007	Fall	IC Dana Fellow-Num. Electrodynamics	Maksim Sipos	
2007	Fall	Elephant Seismic – field data analysis	Nik Batruch	
2008	Spring	IC Dana Fellow-Num. Electrodynamics	Maksim Sipos	Whalen
2008	Spring	Elephant Seismic – field data analysis	Nik Batruch	Whalen
2008	Summer	Evanescent wave experiment	Darius Romero	
2008	Fall	Electronics for the speed of light	Arthur Chao	
2008	Fall	Measurement of Resistivity in Metals	Justin Sousa	

Year	Term	Activity	Person	Presentation
2008	Fall	Build and Operate a SQID	Charlie Strehlow	
2009	Spring	Measurement of Resistivity in Metals	Justin Sousa	Whalen
2009	Spring	Build and Operate a SQID	Charlie Strehlow	Whalen
2009	Summer	Electronics for a MOT	Judith Olson	
2009	Fall	Electronics for a MOT	Judith Olson	

Grants Received and Administered – External:

P. Wrege, B. Thompson, C. Clark, *The effects of oil exploration on forest elephants in Loango National Park*, U.S. Fish and Wildlife Administration, \$12,000, additional funds for extending the study to a period of time after oil exploration activity ceases.

P. Wrege, B. Thompson, C. Clark, *The effects of oil exploration on forest elephants in Loango National Park*, Gabon, International Fund for Animal Welfare (IFAW), December 2006, \$39,000.

Supplemental support for Loango Park sensor deployment from the Wildlife Conservation Society (WCS-Libreville) and Operation Loango (Iguela), March 2007 (logistics, airfare in Gabon, customs for shipping, lodging, food, Ecoguides) (est. >\$7,000)

Bruce Thompson, *Donation of MEMS accelerometer for the Elephant Seismic Project*, Input/Output Inc., Stafford, TX, Fall 2003, \$5000.

B.G. Thompson, Biri Systems, *Charge Control and Data Logging for Photovoltaic Systems*, Florida Solar Energy Center, 1997-1998.

B.G. Thompson, Biri Systems, *Amp Hour Charge Control for Photovoltaic Systems*, Sandia National Laboratories, 1996-1998.

C. Trautmann and B.G. Thompson, Sciencenter, *Gas Cooling and Energy Use Monitoring of Two Structures*, New York State Electric and Gas grant, 1993-1994.

A.F. Kuckes and B.G. Thompson, co-P.I.s, Cornell University, *Electromagnetic Sounding in New Hampshire*, Earth Sciences Division, National Science Foundation, 1982-1984.

Grants Received and Administered – Internal to Ithaca College:

Judith Olson ('11) and B.G. Thompson, *Electronics for a MOT*, Dana Internship, Ithaca College, Summer 2009 (val. \$5000)

Maksim Sipos ('08) and B.G. Thompson, *Numerical Electrodynamics*, Dana Internship, Ithaca College, AY07-08 (val. \$5000)

B. Thompson, *Elephant Seismic Signals: Data Analysis*, Center for Faculty Research and Development – Release time, Fall 2007 (val. \$3600)

B. Thompson and Nik Batruch ('08), *Support for travel for the Loango research project*, Ithaca College Provost, Feb 2007, \$1000.

B. Thompson and Nik Batruch ('08), *Support for travel for the Loango research project*, the Ithaca Fund, Oct 2006, \$500.

B. Thompson, *Support for publication of research results in Publications of the Astronomical Society of the Pacific*, Ithaca College Provost, Dec. 2006, \$250.

Lia Stelljes ('08) and B.G. Thompson, *Sciencenter Education Department*, Dana Internship, Ithaca College, Summer 2006 (val. \$5000)

B. Thompson, *Elephant Seismic Signals: Preparation for Fieldwork*, Center for Faculty Research and Development – Release time, Fall 2005 (val. \$3600).

Tayza Yeelin ('07) and B. Thompson, *Occultation Observations*, CSTEP funding, Summer 2005, \$2200.

Bruce Thompson and Alex Williamson ('05), *Heat Flow Studies*, Ithaca Fund, Ithaca College, Spring 2005, \$500.

B. Thompson, *Support from Ithaca College Physics Department for summer research with students*, 5 students from 2000 to 2006, (total val. \$14,000).

B. Thompson, *Construction costs for the Physics conference room and move of the machine shop*, Ithaca College H&S budget, December 2002, machine shop moved and room completed in March 2004, \$15,000.

Michelle Fura ('01) and B.G. Thompson, *Sound Colors Exhibit for the Sciencenter*, Dana Internship, Ithaca College, AY99-00 (val. \$4000).

Matt Anderson ('00) and B.G. Thompson, *Exhibit Development for the Sciencenter*, Dana Internship, Ithaca College, awarded Summer 1997 (val. \$4000).

Professional Memberships:

Sigma Xi
American Association of Physics Teachers
American Geophysical Union
International Occultation Timing Association

Professional Service:

Sigma Xi, administrator for the Ithaca College Chapter and national delegate
Sciencenter – current activities: Advisory Board, Long Range Planning Committee,
Exhibits Committee. Egg Drop Judge
Manuscript referee for the American Journal of Physics, 2004 to the present
Manuscript referee for The Physics Teacher, 2005 to the present
Manuscripts refereed for Behavioral Ecology and Sociobiology, 2004

Service to the Department – 2002 to present

Chair – May 2006 to August 2009
2 year review of Matt Sullivan – March 2007
4 year review of Luke Keller – March 2007
4 year review of Michael Rogers – March 2007
Acting Chair – Fall 2004
Department Assessment and Planning
Organized the department workshop on vision, values and mission – Nov 2003
Organized and managed the department Assessment and Planning process – Dec
2003
Submittal of the department assessment and plan (with dept faculty) – May 2004
Wrote Assessment and Plan Reports to the dean and provost – June 2005, 2006,
2007
Organized the annual fall department workshop on A&P – Aug 2004, 2005, 2006,
2007

Department Search Committee
Member for two faculty searches in AY02-03 (hired Keller, Rogers)
Chair for faculty search in AY04-05 (hired Sullivan)
Chair for faculty search in AY07-08 (NTEN)
Chair for faculty search in AY07-08 (Sabbatical replacement)
Rewrite department promotional flier – Feb 2005, Jan 2007
Administrator of the department Honors Exam – 2003, 2005
Radiation officer for the department x-ray equipment – inspection in Dec 2005, Dec 2007

Service to the College – 2002 to present

Paulen A. Smith Chapter of Sigma Xi at Ithaca College

Administrator from 2002 to present
 Organized the induction ceremony and banquet each year
 Organized the undergraduate conference travel fund 2004 to present
 Chapter ranked in the top 10 of 520 in recruitment and retention in 2006
 C.P. Snow Committee
 Fall 2001 – Spring 2004
 Co-chair Fall 2002 – Spring 2004
 Whalen Symposium
 Session convener 2004 – 2007
 Sponsored talks by students 2002 – 2007
 Mathematical Contest in Modeling
 Faculty sponsor for the physics team Feb 2006, 2007
 General Education Revision sub-committee on science literacy – 2006
 H&S Dean’s Committee on Assessment and Planning – Spring 2006
 Sponsored and participated in Phi Kappa Phi induction of Nitin Rajan – 15 October 2006
 Ithaca Today CNS open house – April 2006, 2007
 Alumni weekend open house at Ford Observatory – June 2003, 2004, 2005, 2006

Service to the Community – 2002 to present

Sciencenter
 Board of Trustees – 1985 to 2005
 Advisory Board – 2005 to present
 Exhibits Committee – 1984 to present
 Long Range Planning Committee – inception ca. 1990 to present
 Other committees and positions held – Board Development Committee (Chair),
 Building Program and Construction Committee, Vice President of Board,
 Secretary of Board, Construction Coordinator, Executive Director Search
 Committee
 Egg Drop contest judge – April 1986 to 2009 (except 1991)
 Other recent activities –
 Showtime! presentations: Jun 2004, Jun 2006, Jul 2006
 Resource participant in external review 2006

Rochester Boy Scouts at the Ford Observatory – Feb 2003, 2006
 Science Night – South Hill School – Apr 2002
 Science activity table at airport open houses – May 2006, June 2006, June 2007, Sept
 2007, June 2008, Sept 2008

Exhibits Designed and Built for the Sciencenter:

<i>Exhibit</i>	<i>Year</i>	<i>Partners</i>
Holonomograph	1984	Dan Flerlage
Black Hole	1985	
Colored Shadows	1985	Debbie Levin
Frozen Shadows	1985	Matt Kleinman

Giant Magnet	1985	
Reaction Time	1986	
Shake Hands with Yourself	1986	Katie Thompson
Make an Earthquake	1988	
Where is Air?	1988	
Visible Voice	1989	
Whisper Dishes	1991	5th grade class - Caroline School
Accurate Time (WWV)	1992	
Geoclock	1992	
Floating on Air Table	1994	
Solar Eclipse Simulation	1994	
Sound Colors	1995	Talal Shamoan
Foucault Pendulum	1996	Paulen Smith (IC Physics)
Sundial	1997	Matt A.(IC'00) - IC Dana Intern
Color Matching	1998	Matt A.(IC'00) - IC Dana Intern
Probability Bowl	1999	Kathy Krafft, Eric C.
Solar Energy	1999	Bettina (IC'01), Bob McGuire
Sound Colors - Redux	2000	Michelle (IC'01) -IC Dana Intern
Reaction Time - Redux	2000	Evan (IC'03), Matt
Probability Bowl repair	2005	
Sundial refurbishing	2008	