

CURRICULUM VITAE: *Lawrence M. Krauss*

Born: May 27, 1954; New York City

Citizenship: U.S.A., Canada

Married: 2014 to Nancy Dahl

Children: Lillian, born Nov. 23, 1984

Current Address and Position: Director, Origins Project,
Foundation Professor, School of Earth and Space
Exploration
and Department of Physics
Co-Director, Cosmology Initiative
Associate Director, Beyond Center for Fundamental
Concepts in Science
Arizona State University
PO Box 871404, Tempe AZ 85287-1404
Research office: 480-965-6378
Email; krauss@asu.edu

Education

B.Sc. First Class Honours, Mathematics and Physics
Carleton University, Ottawa, Canada, 1977

Ph.D. Physics, Massachusetts Institute of Technology,
Cambridge, Massachusetts, 1982

Honorary Degrees and Fellowships:

1998 Fellow, American Physical Society

2001 Fellow, American Association for the Advancement
of Science

2003 D.Sc. Carleton University, Ottawa, Canada

Employment: Teaching and Research (since 1982)

1982-85 Junior Fellow, Harvard Society of Fellows, and
Physics Dept., Harvard University

1985-88 Assistant Professor, Dept. of Physics and Dept. of
Astronomy, Yale University

1985-89 Visiting Scientist, Harvard-Smithsonian Center for
Astrophysics

1988-93 Associate Professor, Departments of Physics and
Astronomy, Yale University

1993- 2008	Ambrose Swasey Professor of Physics and Professor of Astronomy, Case Western Reserve University.
1993-2005	Chairman, Department of Physics, Case Western Reserve University
2005	Director, Office of Science, Public Policy, and Bio-Entrepreneurship, Case Western Reserve University School of Medicine
2002-2008	Director, Center for Education and Research in Cosmology and Astrophysics
2008-	Foundation Professor, School of Earth and Space Exploration, Physics Dept and Beyond Center, and Director, Origins Initiative, Arizona State University

Visiting Positions:

CERN associate- 1983
 Institute for Theoretical Physics Santa Barbara- 1984, 1985, 1988, 1989,1992, 2002,2003
 Smithsonian Astrophysical Observatory- 1984-88
 University of Chicago, 1989
 Institute for Nuclear Theory, Seattle 1994
 Institute for Nuclear and Particle Astrophysics, Lawrence Berkeley Laboratory 1995, 1996, 1998
 Scientific Associate, CERN 1996-97
 Institute des Hautes Etudes Scientifique 1997-98
 Isaac Newton Institute, Cambridge University 1999
 Perimeter Institute 2003
 Hooker Distinguished Visiting Professor, Origins Institute, McMaster University, 2005
 Member, Institute for Advanced Study, 2005
 Visiting Professor, Vanderbilt University, 2006-7
 Visiting Professor, University of Zurich, 2008,2009
 Distinguished Visiting Professor, Australian National University, 2010-
 James and Jean Davis Prestige Visiting Fellow, Otago University, 2011
 Miegunyah Distinguished Visiting Fellowship, University of Melbourne, 2011.

Other Positions:

Commentator: Marketplace, All Things Considered
 Columnist, Nature Physics, 2005-6
 Columnist, New Scientist Magazine, 2007-8
 Columnist, Scientific American, 2009-10
 Columnist, Slate Magazine 2012-
 Chair, APS Forum on Physics and Society 2007
 Chair, AAAS Physics Section 2007

APS Panel on Public Affairs, 2009-12
 Co-Chair, Board of Sponsors, The Bulletin of the
 Atomic Scientists, 2009-
 Board of Directors, Federation of American
 Scientists 2010-
 Board of Directors of Center for Inquiry 2012-
 Physics Editorial Board for the College Access
 Project 2012-
 Executive Committee, APS Forum on Physics and
 Society 2012-15
 Chair, Board of Governors, Australia New Zealand
 Institute of Theoretical Physics, 2012-

Major Awards:

1984	First Prize Award, Gravity Research Foundation
1986	Presidential Young Investigator Award
1997	Glover Award for Distinction in Physics Achievement and Physics Education, Dickenson College, PA.
2000	Award for Public Understanding of Science and Technology, American Association for the Advancement of Science. Citation: <i>For global impact as a science communicator and the ability to maintain an active science career while writing several books about physics for the general public.</i>
2001	Julius Edgar Lilienfeld Prize, American Physical Society. Citation: <i>For outstanding contributions to the understanding of the early universe, and extraordinary achievement in communicating the essence of physical science to the general public.</i>
2001	Andrew R. Gemant Award, American Institute of Physics. Citation: <i>To Professor Lawrence Krauss for excellence in the interpretation of physics to the public through numerous newspaper and magazine articles, books, lectures, and television productions. Krauss is especially commended for his communication of sound scientific literacy through timely opinion pieces and books, and for his efforts to address incorrect popular interpretations of science disseminated in the mass media.</i>
2002	American Institute of Physics Science Writing Award for <i>Atom, An Odyssey from the Big Bang to Life on Earth and Beyond</i>
2003	Humanism Award, Free Inquirers of Northeast Ohio
2004	Oersted Medal, American Association of Physics Teachers.
2004	Northern Ohio Live Award of Achievement: Science and Technology

2005	Joseph A. Burton Forum Award, American Physical Society, Citation: <i>For major contributions in defending science in the schools through his efforts in combating the opponents of teaching evolution, and for continuing to enhance the public understanding of contemporary physics</i>
2009	Center for Inquiry World Congress Award for
Scholarship in the Public Interest.	
2009	Friend of Darwin Award, <i>National Center for Science Education</i>
2009	Helen Sawyer Hogg Prize of the Royal Astronomical Society of Canada and the Astronomical Society of Canada
2012	National Science Board 2012 Public Service Award
2013	Roma Award Urbs Universalis
2014	Academia Film Olomouc award for Outstanding Communication of Science
2014	Gravity Research Foundation Essay Award
2015	American Humanist Association's Humanist of the Year
2016	Richard Dawkins Award

Other Honors (since 1977):

1977	Senate Graduating Medal- Carleton University
1977-1981	N.R.C. Postgraduate Scholarship
1982-1985	Junior Fellow, Harvard Society of Fellows
1982-83	N.S.E.R.C. Fellowship
1988	Junior Faculty Fellowship, Yale University
1988	Senior Faculty Fellowship, Yale University
1988	Nesbitt Lecturer, Carleton University
1989	Gravity Research Foundation Prize Award
1990	Named Sigma-Xi National Lecturer (1991-92)
1990	Named to "International Leaders in Achievement"
1991	Gravity Research Foundation Prize Award
1993	Named to Ambrose Swasey Chair in Physics
1995	Gravity Research Foundation Prize Award
1996	Inaugural Distinguish Scientist Lecturer for Young People--Ohio Aerospace Institute
1996	Inaugural Distinguished Physics Lecturer, University of Minnesota
1996	Ohio Achievement Award Selection, Northern Ohio Live Magazine
1997	Hays Lecturer, Oberlin College
1997	Great Poets League of Cleveland Honoree 1997
1998	Cleveland Magazine, 50 Most Interesting People of the Year Award
1997-8	University School-Seelbach Visiting Chair

1998 American Physical Society Centennial Lecturer
1998 Henry Steel Lecturer, Mid America Orthopedic Assn.

1998 Commencement Speaker, Hiram College
1998 13th Annual Frank G. and Jean M. Chesley Lectureship, Carleton College

1998 Herzfeld Lecturer, Catholic University
1999 Fellow, American Physical Society
1999- Board of Directors, Physics Entrepreneurship Program.

1999 Gravity Research Foundation Prize Award
1999 Moti Lal Rustgi Memorial Lecturer, SUNY Buffalo
1999 Hendrik de Waard Foundation Lecturer, Groningen, Netherlands

2000 Maurer Memorial Lecturer, University of Arkansas
2000 Vanden Miles Lecturer, Wayne State University
2000 Kallen Lecturer, University of Lund, Sweden.
2000 Benedum Lecturer, University of West Virginia
2000 Great Minds Lecturer, Illinois Math and Science Academy, Aurora IL

2000 Soloist, Holst, The Planets, with The Cleveland Orchestra

2001 Rochester Lecturer, University of Durham, UK
2001 Isaac Asimov Memorial Panelist, American Museum of Natural History, NY

2001 Rorschach Lecturer, Rice University
2001 Shell Lecturer, National Assoc. of Science Teachers
2001 Invited Witness, U.S. House Committee on Science, Session on the Future of Space Exploration

2001 Malstrom Lecturer, Hamline University, Minnesota
2001 Morgan Lecturer, Texas Christian University, Fort Worth Texas

2001 Timothy J. OLeary Distinguished Scientist Lecturer, Gonzaga University

2001 Presidential Inauguration Keynote Speaker Clark University

2001 Campbell Lecturer, Society of Pediatric Urology
2001 Ernest Orlando Lawrence Centenary Lecturer, Lawrence Berkeley Laboratory

2001 Fermi Centennial Lecturer, Fermilab
2001 Fellow, American Association for the Advancement of Science

2002 Knight Fellow, Western Reserve Academy
2002 Friedman Lecturer, Penn State University
2002 Milton Lecturer, Syracuse University
2002 Chancellor's Lecturer, Vanderbilt University
2002 Fellow, Committee for the Scientific Investigation of Claims of the Paranormal

2003 Waynick Lecturer, Penn State University

2003 Donald Ross Hamilton Lecturer, Princeton University

2003 Woods Lecturer, Westminster College, PA

2003 New Frontiers in Information Sciences Distinguished Lecturer, Air Force Research Laboratory, Rome NY

2003 Commencement Speaker, Carleton University

2003 Five Colleges Lecturer, U Mass. Amherst

2003 William Mahoney Lecturer, U. Mass Amherst

2003 Presidential Lecturer, Clark University

2004 Joe Barnhart Lecturer, Coastal Bend College, TX

2004 Constance Wilson Distinguished Lecturer, Berry College, GA

2004 Maurice and Yetta Glicksman Commencement Lecturer, Brown University

2004 Likover Lecturer, American Civil Liberties Union.

2004 Samuel Newton Taylor Lecturer, Goucher College

2005 Hooker Professor and Lecturer, McMaster University

2005 Rudin Distinguished Scholar Lecturer, Marymount College

2005 First Annual Mel Oakes Distinguished Undergraduate Lecturer, UT. Austin

2005 World Year of Physics Lecturer, Oak Ridge National Laboratory

2005 Benson Lecturer, Miami University

2005 IBM Yorktown Heights Visions Lecturer

2005 NASA Huntsville, World Year of Physics Lecturer

2005 Sigma Pi Sigma Lecturer, Wright State University

2005 Crump Lecturer, St. Andrews School

2005 Presidential Lecturer, University of Tulsa

2005 IBM Lecturer, Wittenberg University

2005 World Year of Physics Lecturer, Severance Hall

2006 Michigan State Science Teacher's Distinguished Lecturer

2007-8 Phi Beta Kappa National Visiting Scholar

2006- Board of Sponsors, Bulletin of the Atomic Scientists

2006 Terry Lectureship, Science and Religion, Yale University

2007 Distinguished Scientist Lecture, Brookhaven National Laboratory

2007 Concordia University Distinguished Scientist Lecturer

2007 Gravity Research Foundation Prize Award

2007 Michelson Centenary Lecturer, US Naval Academy.

2007 Inaugural Beyond Institute Lecturer, Arizona State University

2008 Centennial Lecturer, University of Arkansas

2008	Bradley Lecturer, American Enterprise Institute
2008	2008 Michigan State University Distinguished Lecturer
2009	National Lecturer, Australian National Science Week
2010	Todd Lecturer, Butler University
2010	Woods Lecturer, Norwich University.
2010	Smith Lecturer, Davidson College
2010	Distinguished University Lecturer, U. Alberta, Edmonton
2010-	Distinguished Visiting Professor, Australian National University
2011	James and Jean Davis Prestige Visiting Fellow, Otago University
2011	Miegunyah Distinguished Visiting Fellowship, University of Melbourne
2012	Irving K. Barber Lecture, University of British Columbia
2012	The Little-Franklin Lecture, Auburn University
2012	Institute of Physics Lecturer, Hobart Tasmania
2012	Math for America Lecturer, UCSD
2013	Distinguished Lecturer Award, Medical Health Physics Society
2013	Distinguished Lecturer, Williams College
2013	Dean's Distinguished Lecturer, University of Texas at Austin
2013	Distinguished Dean's Lecturer, Radcliffe College
2013	Distinguished Lecturer, University of New Orleans
2013	Asimov Panelist, AMNH
2013	Gordon Tomkins Lecture, UC San Francisco
2013	Laureate of International Academy of Humanism
2014	Distinguished Lecturer, University of Wisconsin-Madison
2014	Allele Lecturer, University of Alabama
2014	Michael West Lecturer, Queen's University Belfast
2015	Fetzer Memorial Lecture, Nebraska Wesleyan University

Positions, Offices and Memberships, etc. (since 1977):

1977	Board of Directors, Canadian Assoc. of Physicists
1981-83, 89-	Member (Life), American Physical Society
1983	APS Forum on Physics and Society Awards Cmte.
1985-87	Yale University Course of Study Committee
1987	Convenor, Lewes Center Summer Meeting on Cryogenic Detection Neutrinos and Dark Matter

1988-91 Sigma Xi-Committee on Lectureships

1988-1988 Co-organizer, Yale Workshop on Cosmic Strings
 Convenor- Cosmology and Astrophysics, APS
 Particles and Fields Conference 1988

1989 Program Committee, International Conference on
 Particles and Nuclei

1989 Co-organizer, Yale Workshop on the Cosmic
 Microwave Background

1989 Member, Panel on Particles of the Astronomy and
 Astrophysics Survey Committee

1992 Co-organizer, Texas Meeting on Baryon
 Number Violation at the Weak Scale.

1992 Director, Association of Yale Alumni Program: The
 Legacy of Newton

1992 Co-organizer, Aspen Workshop on Gravitational
 Lensing in Cosmology.

1992 Organizing committee, Colliding Beam Conference,
 Yale University Oct 2-3 1992

1992- Program Committee Member, Moriond meetings on
 Electroweak Interactions,

1993 Organizer, Case Meeting on New Physics at New
 Facilities, Oct 15-17 1993

1994 Organizer, CWRU Workshop: CMB Two Years
 after COBE, April 22-24, 1994

1994- Executive Committee, Board of Trustees, Friends,
 Cleveland School for the Arts

1995 Organizer, Aspen Center for Physics Workshop on
 Big Bang Nucleosynthesis

1995 Member Exhibits Committee, Great Lakes Science
 Center Board of Trustees

1995- Member, American Astronomical Society

1995-1998 Member, Faculty Senate of Case Western Reserve
 University

1995- Board of Trustees, Great Lakes Science Center

1995-1997 Organizing Committee, International Conference on
 Sources and Detection of Dark Matter

1995- Member, New York Academy of Sciences

1995- Member, American Association for the
 Advancement of Science

1997 Organizing Committee, Early Universe Physics,
 England 1997

1997-2000 Executive Committee, Division of Astrophysics,
 American Physical Society

1997-98 InfoWorld Futures Project Advisory Board

1997- Odyssey Magazine, Advisory Board

1997- Review Panel, M.I.T. Curriculum on Science and
 Communication

1998 Organizing Committee, Sheffield International
 Workshop on Dark Matter Detection

1997-98	Search Committee, Vice-President for Research, Case Western Reserve University.
1998-	General Member, Board, Aspen Center for Physics
1998-2000	Editor, Modern Physics Letter A
1998-2000	Editor, Int. Journal of Modern Physics
1998-	Chair, Exhibits Committee, Great Lakes Science Center Board of Trustees
1998-	Executive Committee Great Lakes Science Center Board of Trustees
1999-	Organizing Committee, International Conference on Sources and Detection of Dark Matter
1999	Co-Organizer, Aspen Workshop on the Cosmological Constant
1999-	Fellow, American Physical Society.
1999-2000	Organizing Committee, DPF 2000 meeting
1999-2000	Co-Organizer, Aspen Workshop on Dark Matter.
2000-2001	CWRU, University Stakeholders Committee
2000-2002	American Physical Society, Panel on Public Affairs.
2000	International Advisory Committee, International Conference on Dark Matter Detection.
2001	Advisory Committee, Physics Potential of Supernova Neutrino Detection Meeting, UCLA Feb 2001
2001-	Board of Advisors, The Skeptics Society
2001	Convenor, Frontiers of Physics Meeting, Vanderbilt Tenn, March 2001
2001	Chair, Pagels Lecture Committee, Aspen Center for Physics.
2002	International Advisory Committee, International Conference on Dark Matter Detection.
2002	Board of Directors, Ohio Citizens for Science
2002	Member, HEPAP Public Outreach Panel
2002-	Trustee, Board of Trustees, Cleveland Museum of Natural History
2002	Chair, President's Commission on Graduate Education and Research, CWRU
2002-	Fellow, Committee for the Scientific Investigation of Claims of the Paranormal
2002	Coordinator, Teachers Conference on Cosmology, Institute of Theoretical Physics, Santa Barbara
2003-2006	Gemant Award Committee, AIP.
2003-	Board of Advisors, and Guidance Committee, Science Fiction Experience, Seattle Washington
2003	Grand Judging Co-Chair, Physics, Intel Science and Engineering International Science Fair
2003	Aspen Center for Physics Colloquium Chair.
2003	Scientific Advisory Committee, SciPart'03
2003	Lilienfeld Prize Committee, APS
2003-	Board of Directors, TalkingScience

2003- Board of Directors, Faststart LLC
 2003- Board of Directors, Faststart Foundation
 2005 Gemant Prize Committee, AIP
 2004- Commentator, American Public Media's
 Marketplace
 2004-5 Scientific Program Planning Committee, West
 Quad, Case Western Reserve University Medical
 School
 2004- ACLU Board of Trustees, Cleveland
 2004-5 Chair, Advisory Committee on Research
 Computing, Information Technology Services,
 CWRU
 2004-5 Strategic Planning Review Coordinator, Department
 of Chemistry, CWRU.
 2004 Aspen Institute, Executive Seminar
 2004 NSF Physics Education Grant Review Panelist
 2004-5 Aspen Center for Physics, Public Lecture
 Committee
 2005 Jury Member, Sundance Film Festival
 2005 Elected, Chair-Elect, APS Forum on Physics and
 Society
 2005- Board of Advisors, Defcon (Defense of the
 Constitution).org
 2005 APS Burton and Szilard Award Committee
 2005- Commentator, NPR's All Things Considered
 2006- Chair-Elect, Physics Division, American
 Association for the Advancement of Science
 2006 International Advisory Board, International
 Colloquium on Group Theoretical Methods in
 Physics
 2006- Chair, Advisory Board, Help Ohio Public Schools
 2006- Board of Sponsors, Bulletin of the Atomic
 Scientists
 2006- National Advisory Board, Office of Public Policy,
 Center for Inquiry
 2006- National Advisory Board, Scientists and Engineers
 for America
 2007- NASA Primordial Polarization Program Definition
 Team
 2007- Scientific Organizing Committee, International
 Astronomical Union Symposium, Astronomy and
 Society.
 2007 Scientific Organizing Committee, Texas
 Symposium on Relativistic Astrophysics.
 2007- Steering Committee, Science Debate 2008.
 2008 Science Advisory Committee, Barack Obama
 Presidential Campaign
 2009- Panel on Public Affairs, American Physical Society

2009-	Co-Chair, Board of Sponsors, Bulletin of the Atomic Scientists.
2009	Advisory Board, Dark Matter International Workshop
2009	Chair, Board of Directors, Science Friday Foundation.
2010 - 2015	Board of Directors, Federation of American Scientists
2011	International Advisory Committee, Identification of Dark Matter Conference
2012	Board of Directors Center for Inquiry
2012	Physics Editorial Board for the College Access Project
2012	APS Forum on Physics & Science Executive Committee
2013	Chair, Board of Governors, Australia-New Zealand Institute of Theoretical Physics
2013	Member, International Academy of Humanists
2015	Chair, Board of Sponsors, Bulletin of the Atomic Scientists
2015	Board of Experts, Federation of American Scientists

Major Lectures:

(a) *University or Laboratory Colloquia* (does not include seminars):

Harvard University 1983	California Institute of Technology 1984
Stanford University 1984	U. Mass Amherst 1984
MIT 1984	Institute for Theoretical Physics-UCSB 1984
SLAC 1985	U.C. Santa Barbara 1985
CITA-Toronto 1985	TRIUMF 1985
DAO-Victoria 1985	University of Chicago 1985
Brookhaven Laboratory-1986	New York University-1987
Stanford University-1987	University of Illinois-1987
Brown University-1987	University of Chicago-1987
MIT-1987	Ecole Polytechnique-1988
LBL-1988	Arizona, 1988
U.C. Irvine, 1988	Michigan 1989
Institute d'Astrophys., Paris 1989	Cincinnati 1989
McGill 1990	William and Mary 1990
Brigham Young University 1991	City College of New York 1991
Yale University 1991	Queen's University 1991
University of Cincinnati 1991	University of British Columbia 1992
ATT 1992	University of Florida 1992
NIST 1992	Case Western Reserve 1992
Naval Research Lab 1993	NYU 1993
NASA-Goddard 1994	Institute for Advanced Study 1994

Case Western Reserve 1995
 Harvard University 1995
 U.C. Riverside 1996
 Simon Fraser University 1996
 University of Minnesota 1996
 CERN 1997
 U.T. Austin 1997
 Cal. State Long Beach 1997
 University of Akron 1998
 Directors Colloquia, LANL 1998
 Johns Hopkins University 1998
 NIST 1998
 CWRU 1998
 Washington U., St. Louis 1999
 University of Montreal 1999
 Aspen Center for Physics 1999
 Dartmouth 1999
 University of Kansas 1999
 Stanford 2000
 Michigan State University 2000
 Wayne State University 2000
 University of Arkansas 2000
 University of Il., Urbana 2000
 University of Akron 2000
 Lawrence Berkeley Lab. 2001
 University of Texas Austin 2002
 Vanderbilt University 2002
 KITP, Santa Barbara, 2002
 Clark University, 2003
 Washington University 2004
 Stockholm University 2004
 McMaster University 2005
 Stanford University 2005
 University of Chicago 2005
 Rockefeller University 2005
 Kent State, 2005
 Harvard University 2006
 Vanderbilt University 2006
 Allegheny College, 2007
 Physical Review, APS 2007
 University of Arkansas 2008
 Old Dominion University, 2008
 University of Zurich 2008
 University of Arizona 2009
 University of Texas 2009
 University of Auckland, 2010
 NASA Goddard 2010
 Max Planck Inst. Hanover 2010
 Institute for Advanced study 2011
 Chinese University of Hong Kong 1995
 Ohio State University 1996
 University of British Columbia 1996
 University of Maryland 1996
 Caltech 1996
 ETH 1997
 CERN 1997
 CWRU 1997
 University of Kentucky 1998
 Purdue University 1998
 University of New Mexico 1998
 ICTP Trieste 1998
 Catholic University of America 1998
 Penn State University 1999
 M.I.T. 1999
 Notre Dame 1999
 Kansas State 1999
 Caltech 2000
 U.C. San Diego 2000
 U. C. Berkeley 2000
 Indiana University 2000
 Fermi National Accelerator Lab 2000
 Xerox PARC Research Center 2000
 Syracuse University 2001
 University of Rochester 2001
 Cornell University 2002
 University of British Columbia 2002
 NYU 2003
 UNC 2004
 Uppsala University 2004
 University of Virginia, 2005
 Oak Ridge National Laboratory 2005
 Wittenberg College 2005
 IBM Yorktown Heights 2005
 Institute for Advanced Study 2005
 Columbia University 2006
 Case Western Reserve University 2006
 University of Kansas 2007
 U.C. Berkeley, 2007
 McGill University, 2007
 University of Michigan 2008
 Michigan State University 2008
 Arizona State University 2008
 Case Western Reserve University 2009
 Space Telescope Science Institute 2009
 University of Melbourne 2010
 Australian National University 2010
 Inst. Math Phys. Of Universe, U. Tokyo 2010
 Jet Propulsion Laboratory 2011

University of Otago, 2011
University of Melbourne, 2011
Mount Stromlo 2011
Macquarie University 2012
UCSB 2012
Gran Sasso Laboratory 2013
University of Manchester 2013

University of California, San Diego 2011
Australia National University 2011
CERN 2011
Columbia 2012
Williams College 2013
Yale University 2013

(b) Conferences -Invited Lectures:

3M Lecture series- Carleton College 1982
Western Theoretical Conference 1982
Neutrino 84
EST Meeting 1984
Telemark Neutrino Conference 1984
Yale Theoretical Advanced Study Institute in Elementary Particle Physics, 1985
Moriond 1986
Fermilab Beam Dump Workshop 1986
Seventh Vanderbilt High Energy Physics Conference 1986
International Conference on High Energy Physics (2 lectures), U.C. Berkeley 1986
Opening Lecture, Rencontres de Moriond, 1987
AAAS Annual Meeting, Boston 1988
Rencontres de Moriond, 1988 (2 lectures)
APS Baltimore Meeting 1988
Plenary Lecture-APS/AAPT New England Meeting 1988
Plenary Lecture, Neutrino 88
MIT Conference on Gravitational Lenses, 1988
Yale Workshop on Cosmic Strings 1988
Plenary Lecture, Berkeley Conference on Particle Astrophysics, 1988
Aspen Winter Conference 1989
Rencontres de Moriond, 1989 (2 lectures)
APS Baltimore Meeting 1989
Plenary Lecture, French Physical Society 1989
Moriond 1990 (2 lectures)
Wisconsin Phenomenology Conference 1990
IUPAP Conference, Tokyo 1990
APS New England Meeting, 1990
After the First Three Minutes, Maryland 1990
International Conference On Trends in Particle Astrophysics 1990
APS New England Meeting, 1991
XIV International Warsaw Meeting on Elementary Particle Physics 1991
2nd International Conference on Theoretical and Phenomenological Aspects of
Underground Physics, Toledo 1991
Aspen Winter Conference on Particle Physics 1992
Symposium on Black Holes Strings, Wormholes, 1992
Florida Workshop on Dark Matter, 1992
Franklin Symposium on Neutrino Physics 1992

IVth Rencontre de Blois: Particle Astrophysics, Plenary Lecture, 1992
 Plenary Lecture, International Conference on Particle Physics, Dallas 1992
 International Conference on Neutrino Astrophysics, Takayama Japan 1992
 Moriond meeting on Atomic, Gravitational and New Physics 1993.
 International Workshop on Neutrino Telescopes, Venice 1993
 Rencontres de Physique de la Vallee d'Aoste, La Thuile, 1993
 Opening Lecture, Moriond Meeting on Electroweak Interactions 1993
 Twelfth International Workshop on Weak Interactions, Seoul 1993
 International Conference on Particle Astrophysics, Bangalore 1994
 Nordic Winter School on Particle Physics, Norway 1994
 U.C.L.A. Conference on Critiques of Sources of Dark Matter, UCLA 1994
 INT Meeting on Solar Modelling and Solar Neutrinos, Seattle, 1994
 Snowmass Workshop on Particle Astrophysics 1994
 Trends in Particle Astrophysics, Stockholm 1994
 Polish Workshop on Particle Physics: From the Weak Scale to the Planck Scale 1994
 ITP Santa Barbara, Clustering and Cosmic Microwave Workshop 1995
 Keynote Speaker, Ohio Section, American Assoc. of Physics Teachers 1995
 Keynote Speaker, National Teacher Training Institute, 1995
 Teacher Resource Workshop -Am. Ass. of Phys. Teachers Nat. Meeting-Spokane 1995
 Rencontre du Vietnam, Ho Chi Minh City, Oct 1995
 Plenary Speaker, Pan Asian Conference on Cosmology, 1996
 International Conference on Sources and Detection of Dark Matter, UCLA 1996
 Keynote Speaker, Ohio Section, American Physical Society, 1996
 Plenary Speaker, International Workshop on Neutrino Telescopes, Venice 1996
 Plenary Speaker, Dark Matter 1996, Sheffield U.K.
 Keynote Speaker, Ohio Aerospace Institute Professional Conference 1996
 American Association of Physics Teachers/Long Island Physics Teachers Conference,
 Brookhaven, 1996
 La Thuile, Rencontre de Physics, 1997
 Napoli Thinkshop on Astrophysics: The Search for Extraterrestrial Intelligence, 1997
 Rome Conference on the Future of the Standard Model, 1997
 San Minateo Conference: The Irresistible Rise of the Standard Model, 1997
 Edoardo Amaldi Meeting on Gravitational Waves, CERN 1997
 Nasa Lewis Meeting: Breakthrough Propulsion 1997
 DOE, Office of Energy Research, Science Themes and Strategic Planning 1998
 International Conference on Sources and Detection of Dark Matter, UCLA 1998
 Space Policy Institute: Plenary Lecturer, Symposium on Astrobiology and the Search
 for Extraterrestrial Life, George Washington University, March 1998
 PASCOS 1998, Plenary Lecture, Boston, March 1998
 Keynote Speaker, APS-AAPT Educator Workshop, Columbus, April 1998
 Plenary Speaker, Tropical Workshop on Particle Physics and Cosmology, San Juan,
 Puerto Rico, April 1998
 Henry Steel Lecture, Mid-American Orthopedic Assn, Acapulco, April 1998
 Plenary Lecturer, WEIN98, International Conference on Physics Beyond the Standard
 Model, Santa Fe, June 1998
 Keynote Address, Fermilab Annual Users Meeting, Aug 1998
 Plenary Speaker, International Workshop on Dark Matter, Buxton England Sept. 1998
 Conference on Relic Neutrinos, Trieste Sept. 1998
 NASA Space Exploration Planning Meeting, Lewis Research Center, Sept 1998

Pritzker Symposium and Workshop on Inflationary Cosmology, Chicago Feb 1999
 Gordon Conference, Nuclear Chemistry, Keynote lecture, June 1999
 Aspen Center for Physics Workshop on the Cosmological Constant June 1999
 Plenary Opening Lecture, Am. Assoc. of Physics Teachers Nat. Meeting, San Antonio, TX, Aug 1999
 Lecture, Workshop on Physics of the Early Universe, Newton Institute, Sept 1999
 Plenary Lecture, Cosmo 99, ICTP, Trieste, Italy Sept 1999
 Plenary Lecture, News from the Universe Meeting, DESY Oct 1999
 Chairman and Speaker, National Academy of Sciences Frontiers of Science Meeting, Beckman Center, Irvine CA Nov 1999
 British Particle Physics Association/Royal Astronomical Society Annual Conference, Edinburgh April 2000.
 National Academy of Sciences Annual Meeting, April 2000
 Kallen Memorial Symposium, Lund Sweden, May 2000
 WIPP Underground Physics Workshop, June 2000
 Problems of Vacuum Energy, Aug 2000, Nordita, Copenhagen
 Science in the 21st Century, Brijuni, Croatia, Aug 2000
 Opening Lecture, Third International Workshop on the Detection of Dark Matter, York UK Sept 2000.
 The Far Future of the Universe, The Vatican, Nov 2000.
 Invited Lecture, MRI International Meeting, Cleveland OH Feb 2001.
 Plenary Lecture, Int. Conference on Neutrino Telescopes, Venice, March 2001
 National Academies Symposium on Physics, Washington, June 2001
 TASI Summer School, Boulder Co. , June 2001
 Plenary Lecturer, Cottrell Scholars Workshop, Tucson, July 13-15, 2001
 National Research Council and American Physical Society, "Grand Challenges for the 21st Century, U.S. House of Representatives, July 25 2001
 Scottish Universities Summer School in Physics, St. Andrews, Scotland, Aug 2001
 Opening Lecture, COSMO 2001, International Meeting on Particle Physics and the Early Universe, Finland, Aug 2001
 Workshop on Cosmological Probes of Dark Energy, Chicago, Dec 2001
 Plenary lecture ESO-CERN-ESA Symposium on Astronomy, Cosmology and Fundamental Physics, Munich, March 2002
 Plenary Lecture, APS Ohio Section Meeting, Youngstown, OH April 2002
 Plenary Lecture, Canadian Association of Physicists Annual meeting, Quebec City, June 2002
 Featured Speaker, Gordon Research Conference on Organic Reactions, Bristol RI July 2002
 Plenary Lecture, Portuguese Physical Society, Lisbon, Sept 2002
 Institute for Theoretical Physics Workshop on Dark Matter and Dark Energy, Sept.-Nov. 2002
 Institute for Theoretical Physics, Santa Barbara Teachers Workshop on Cosmology, Oct 2002
 Lecturer, Canary Islands Winter School in Astrophysics, November 2002
 Invited Plenary Lecture, "From Here to Eternity" Conference in honor of J. Silk's 60th Birthday, Oxford University, December 2002.
 Invited Topical Lecturer, AAAS Annual Meeting, Denver Feb 2003
 Plenary Lecture, Physical Cosmology '03, Blois, France June 2003

Plenary Lecture, Respect for All Involved: A National Symposium on Research Integrity, Columbia University, CUNY, New York, Sept 2003
 Opening Lecture, CERCA conference on the Future of Cosmology, Oct 2003, Cleveland OH
 Great Lakes Planetarium Assoc Plenary Lecture, Oct 2003, Cleveland
 Sources and Detection of Dark Matter and Dark Energy in the Universe, UCLA, Feb 2004.
 American Physical Society Meeting, April 2004
 Aspen Institute and Aspen Center for Physics Einstein Celebration, Aug 2004
 COSMO '04, Toronto, Canada, Sept. 2004
 Evolution and God Symposium, Cleveland 2004
 CERCA, Science and Society Symposium Cleveland 2004
 World Congress of Science Producers, Toronto Canada, Nov. 2004
 Aspen Center for Physics Winter Meeting, Feb. 2005
 Seventh Symposium, Internacional Physica, Mexico, February 2005
 Princeton-Oxford Cosmology Meeting, March 2005
 American Physical Society Meeting, April 2004
 NASA Hunstville World Year of Physics Conference, April 2005
 SLAC Summer School in Physics, Summary Lecturer, Aug 2005.
 100 Years in Physics Conference, Singapore, Aug 2005
 International Conference on Physics Education, Delhi Sept 2005
 APS Nuclear Physics Conference, Hawaii, Oct 2005
 International Conference on Humanism, NY, Nov 2005
 Canadian Undergraduate Physics Conference, Canada, Nov 2005
 Inaugural Kavli Institute New Views of the Universe Conference, University of Chicago, Opening Lecture, Dec 2005
 Aspen Center for Physics Winter School Jan 2006
 III International Workshop on : NO-VE, Neutrino Oscillations in Venice, Venice, Italy, Feb 2006
 Sources and Detection of Dark Matter and Dark Energy in the Universe, UCLA, Feb 2006.
 Michigan State Science Teachers Conference, Feb. 2006
 Confronting Gravity, St. Thomas, USVI, March 2006
 NES APS and AAPT Conference, Boston University, March 2006
 Texas A&M Forefront of Physics Meeting, April 2006
 Hadron Collider Physics Symposium, Duke University, May 2006
 Communicating Science and Technology, Tromso Norway, June 2006
 Neutrino 2006, Santa Fe, NM, June 2006
 Ideas Festival, Aspen Institute, Aspen CO, July 2006
 Under the Spell of Physics, Vlieland, The Netherlands, July 2006
 Banff Center, Science Communication, Aug 2006
 Max Delbruck Fest, Cold Spring Harbor Lab, Aug 2006
 Evolution and Faith, Marist College, Oct 2006
 Beyond Belief, Salk Institute, Nov 2006
 Science and Society, Boston, Jan 2007
 AAAS Annual Meeting, February 2007
 Open Questions in Cosmology, Imperial College, UK, March 2007
 APS Annual Meeting, April 2007
 Society for Heart and Lung Transplantation, San Francisco, April 2007

American Physiological Society, Washington. April 2007
 Dark Matter Workshop, Fermilab, May 2007
 New Horizons at Colliders, Brookhaven National Laboratory, May 2007
 European Conference of Science and Technology Museums, Lisbon, June 2007
 Canadian Association of Physicists National Meeting, Saskatoon, June 2007
 Idea City, Toronto, June 2007
 Workshop on Supernovae, Aspen, June 2007
 Science and Media Conference, Aspen, July 2007
 Ideas Festival, Aspen, July 2007
 Fundamental Questions, FQXI Meeting, Reykjavik, Iceland, July 2007
 Chalonge Meeting on Cosmology, Paris, August 2007
 NASA Thermal and Fluids Workshop, Cleveland, Sept 2007
 International Conference on Science and Humanism, Beijing, Oct 2007
 Genoa Science Festival, Oct 2007
 Kshitij, Kharapur India Jan 2008
 American Association for the Advancement of Science Annual Meeting, Boston Feb 2008
 Science and Religion workshop , Aspen Institute, March 2008
 American Atheists Association, Minneapolis, March 2008
 American Chemical Society Annual Meeting, New Orleans, President's Session 2008
 Trieste Science Media Festival, April 2008
 Space Telescope Science Institute Meeting on Dark Energy, Baltimore May 2008
 World Science Festival, NY, May 2008
 Fermilab Workshop of Gravitational Waves and Polarization, Fermilab June 2008
 Chalonge Meeting on Cosmology, Paris, July 2008
 Cosmo 08, Madison Wisconsin, Keynote speaker, Aug 2008
 Sea of Faith Conference, Melbourne Australia, Sept 2008
 Science and Public Policy, Minneapolis Innovation Meeting, Oct 2008
 Beyond Belief, Salk Institute, San Diego, Oct 2008
 Canadian Undergraduate Physics Association, Oct 2008
 Tokyo Meeting in Honor of K. Sato, Nov 2008
 Texas Symposium on Relativistic Astrophysics, Plenary Speaker, Dec 2008
 UNESCO International Year of Astronomy Inaugural Meeting, Plenary Speaker, Jan 2009
 AAAS Annual Meeting, Speaker, Feb 2009
 AAPT Annual Meeting, Speaker, Feb 2009
 Inaugural Origins Symposium, Phoenix, April 2009
 Fifth International School on Field Theory and Gravitation, Brazil, April 2009
 Physics and the Universe, San Paolo, May 2009
 IAU International Symposium, Rio de Janiero, Aug 2009
 Institute of Cosmology 20th Anniversary Meeting on Cosmology, Talloires, France, Aug 2009
 Atheist Alliance International Plenary Speaker, October 2009
 Penn Center for Astroparticle Physics Inaugural Symposium, Dec 2009
 Physics of the Universe Conference, Caltech Jan 2010
 Doomsday Clock Symposium, Jan 2010
 Unsolved Problems in Gravity Jan 2010
 Origins of Human Uniqueness and Behavioral Modernity Feb 2010
 Rightful Place of Science May 2010

Origins of Morality Nov 2010
Origins of Life: the RNA World Revisited Feb 2011
Origins Science and Culture Festival April 2011
The Amazing Meeting July 2011
Club COSMOS August 2011
Ultimo Science Festival August 2011
Singularity Summit August 2011
Denkfest September 2011
Peace Bar Festival October 2011
Science Teller Festival November 2011
Doomsday Clock Symposium January 2012
Darwin Week, The University of Northern Iowa 2012
AAAS Annual Meeting February 2012
Reason Rally March 2012
American Atheists National Convention March 2012
Global Atheists Convention April 2012
ISHLT Annual Meeting April 2012
Vanity Fair Tribute to Christopher Hitchens April 2012
Annual Health Disparities Leadership Summit April 2012
Auckland Writers & Readers Festival May 2012
Atheists Alliance International North American Convention May 2012
World Science Festival May 2012
Aspen Ideas Festival July 2012
Aspen Center for Physics May 2012
The Amazing Meeting July 2012
Canberra Skeptics September 2012
The Big Bang and the interfaces of knowledge towards a common language October 2012
Origins of Deception October 2012
Math for America October 2012
Sky & Telescope Cosmic Trails 5 Cruise November 2012
World Economic Forum January 2013
Climate Change Workshop February 2013
Question, Explore, Discover April 2013
Sydney Writer's Festival May 2013
HowTheLightGetsIn2013 May 2013
Oklahoma Freethought Convention June 2013
Conference in Honour of the 90th Birthday of Freeman Dyson August 2013
The Nobel Conference September 2013
The New Yorker Festival October 2013
Smart Festival October 2013
ECAR Annual Meeting January 2014
Great Debate Parallel Realities: Probing Fundamental Physics, February 2014
AAAS Annual Meeting, February 2014
American Physical Society Annual Meeting, February 2014
IB Asia Pacific Annual Conference 2014, March 2014
Great Debate Transcending Our Origins, April 2014
NECSS Conference, April 2014
AFO Festival, April 2014

HowTheLightGetsIn2014, May 2014
 Galapagos Voyage 2014
 CFI Galapagos Archipelago, June 2014
 BrisScience Talk, August 2014
 The Victorian Skeptics, August 2014
 World Economic Forum Annual Meeting of the New Champions, September 2014
 Zócalo Public Square: Can Science Fiction Revolutionize Science?, September 2014
 Apostacon, September 2014
 Freeflow 2014, October 2014
 La Ciudad de las Ideas, November 2014
 Plenary Invited Lecture, 21st International Congress, of the Australian Institute of
 Physics, December 2014
 World Economic Forum Annual Meeting 2015, January 2015
 Great Debate Extinctions: Tragedy to Opportunity, February 2015
 AFO Festival, April 2015
 American Humanist Association Annual Conference May 2015
 HowTheLightGetsIn 2015
 Skeptics Conference May 2015
 Imagine No Religion 5 June 2015
 ISS2015 June 2015
 The Non-Conference August 2015
 ASU School of Earth and Space Exploration Discover Lecture Series, August 2015
 La Ciudad de las Ideas, November 2015
 Union Theological Society, November 2015
 Scientific Controversies with Janna Levin, November 2015
 Devovx Belgium, November 2015
 Science and Adventure in Antarctica, December 2015
 Einstein's Legacy, Celebrating 100 Years of General Relativity: An Origins Project
 Panel, January 2016
 Trondheim Science Week, March 2016

(c) Major Public Lectures:

Nesbitt Lecture, Carleton University, Nov 1988;
 Museum of Natural History/ New York Astronomical Society Lecture, Dec 1989;
 National Air and Space Museum--Opening Lecture
 Hughes-Danbury Series, Feb 1990;
 New York Open Center---Visions of the 21st Century Series, NYU, Oct. 1990;
 15 Sigma Xi National Lectures 1991-93;
 Wheeler Opera House, Aspen CO, Jan 1992:
 Museum of Natural History, Explorer Series Cleveland Ohio, May 1994;
 Smithsonian-Associates, Department of the Interior, Washington 1995;
 Wheeler Opera House, Aspen CO, Jan 1996;
 U.C. Berkeley Feb 1996:
 Cincinnati Museum of Natural History March 1996, :
 Royal Ontario Museum, Toronto April 1996:
 Ohio Aerospace Institute, Cleveland May 1996;
 Smithsonian Institution, Washington Aug 1996;

Lawrence Livermore Laboratory, Aug 1996;
 Carleton University, Ottawa, Canada, Oct 1996;
 Howard Hughes Lecture, Case Western Reserve University Oct 1996;
 University of Minnesota Nov 1996;
 Ontario Science Centre, Toronto CA Nov 1996;
 Canadian Museum of Civilization, Ottawa, CA, Feb 97
 CERN, March 1997
 Museum of Innovation, San Jose California, April 97
 U.S. Coast Guard Academy, April 1997
 Great Lakes Science Center, May 1997
 Citta della Scienza, Napoli, June 1997
 Hays Lecture, Oberlin College, Sept 1997
 Glover Lecture, Dickinson College PA., Sept. 1997
 Cal State University at Long Beach, Odyssey Program Sept 1997
 Cleveland Museum of Natural History 1997.
 Hayden Planetarium, Nov 1997
 Smithsonian Institution, Washington, Nov 1997
 Commencement Address, Hiram College, May 1998
 Jodrell Bank Observatory Sept 1998
 Chesley Lectures, Carleton College 1998
 Herzfeld Lecture, Catholic University of America, 1998
 American Physical Society, Centennial Meeting, Public Lecture 1999
 Cleveland Museum of Natural History, 1999
 Open Lecture, Irish Science Week, Cork Ireland, 1999
 Hendrik de Waard Lecture, Groningen, Holland, 1999
 Stark Lecture, University of Arkansas 2000
 Vanden Miles Lecturer Wayne State University 2000
 Harvard Millennium Lecture, London U.K. 2000
 Edinburgh Science Festival Lecture, Edinburgh, Scotland 2000
 Inaugural Asian Physics Olympiad Lecture, Jakarta, Indonesia. 2000
 National Academy of Sciences, Washington DC April 2000
 Kallen Memorial Symposium, Lund Sweden May 2000
 Keynote Public Lecture, WIPP Center, Carlsbad, NM June 2000
 Heinz Pagels Memorial Lecture, Paepke Auditorium, Aspen CO. July 2000
 City Club Forum, Cleveland OH, Aug 2000
 Narration, The Planets, with Cleveland Orchestra, Blossom Music Center, Ohio 2000
 York, United Kingdom Sept. 2000
 Performers and Artists for Nuclear Disarmament Concert, Cleveland OH Sept. 2000
 Benedum Lecture, West Virginia University, Oct. 2000
 Association of Science and Technology Centers (ASTC2000) Annual Meeting,
 Cleveland OH Oct 2000
 Xerox Palo Alto Research Center, Palo Alto, Nov. 2000
 John Carroll University, Nov 2000
 Great Minds Lecture Series, Illinois Math and Science Academy, Aurora IL Dec 2000
 Quark Matter 2001, Public Lecture, Brookhaven NY Jan 2001
 Rochester Lecture, University of Durham, Feb 2001
 Asimov Panelist, Museum of Natural History, NY Feb 2001
 Vanderbilt University, March 2001
 Rorschach Lecture, Rice University, March 2001

Shell Lecture, Natl Assoc. of Science Teachers Annual Meeting, St. Louis, Mar. 2001
 Inauguration Lecture, Inauguration of President, Clark University March 30, 2001
 OLeary Distinguished Scientist Lecturer, Gonzaga U. April 2001
 Morgan Lecturer, Texas Christian University. April 2001
 Malstrom Lecture, Hamline University, St. Paul, Minn, April 2001
 Distinguished Author Lecture, Museum of Natural History, NY April 2001
 Skeptics Lecture, Caltech, May 2001
 National Academy of Science, June 2001
 Aspen Center for Physics, July 2001
 Snowmass CO July 2001
 Lawrence Centenary Lecture, U.C. Berkeley, July 2001
 Directors Distinguished Lecture, Lawrence Livermore Laboratory, July 2001
 2001 University National Colloquium, Ohio Wesleyan University, Sept 2001
 Fermi Centennial Lecture, Fermi National Laboratory, Batavia IL Oct, 2001:
 People Have the Power Tour, with Ralph Nader, Cleveland OH Oct, 2001:
 Keynote Address, Virginia Assoc. of Science Teachers, Richmond VA Nov, 2001:
 John Carroll University, Cleveland OH, Nov 2001
 Evolution and God Symposium, Allen Theater, Cleveland OH March 2002
 Ohio Board of Education, Veterans Auditorium, Columbus OH March 2002
 Friedman Lecture, Penn State University, April 2002
 City Club, Cleveland, April 2002
 Arts and Science Lecture Series, Arts Center, Portland Oregon, May 2002
 Gemant Lecture, William and Mary College, Williamsburg VA May 2002
 Milton Lecture, Syracuse University, October 2002
 Chancellor's Lecture, Vanderbilt University, October 2002
 City Club, Cleveland, Dec 2002.
 Perimeter Institute Public Lecture, Waterloo Ontario, Dec 2002
 Science and Religion Lecture, John Carroll University, Jan 2003
 Science and Journalism Lecture, Carleton University, Feb 2003
 KITP Public Lecture, Santa Barbara, March 2003
 Waynick Lecture, Penn State University, April 2003
 Hamilton Lecture, Princeton University, April 2003
 Woods Lecture, Westminster College, May 2003
 Explorer Lecture, Cleveland Museum of Natural History, May 2003
 European Space Agency, Distinguished Scientist Lecture, Holland, June 2003.
 Space Place, Madison Wisconsin, August 2003.
 Five College Lecture, U. Mass Amherst Oct 2003
 Presidential Lecture, Clark University Nov 2003
 Odyssey Lecture, Cal State, Long Beach, Dec 2003
 Barnhart Lectures, Coastal Bend College, March 2004
 Wilson Distinguished Lecture, Berry College, March 2004
 Glicksman Lecture, Brown University, May 2004
 Aspen Institute, Beyond Einstein Symposium, Aug 2004
 White Dog Cafe, Philadelphia, Sept, 2004
 ACLU Annual Likover Lecture, Cleveland Oct. 2004
 Evolution and God Symposium, Cleveland Oct 2004
 Futures Forum, Cleveland Oct 2004
 Samuel Newton Taylor Lecture, Goucher College, Baltimore Nov 2004
 AAAS Lecture, Washington Dec 2004

Origins Institute Lecture, McMaster University January 2005
 Rudin Distinguished Scholar Lecture, Manhattan Marymount College, NY March 2005
 Distinguished Undergraduate Lecture, U.T. Austin, March 2005
 Benson Lecture, Miami University, March 2005
 NASA Huntsville, World Year of Physics/Millennium 2 lecture, April 2005
 World Year of Physics, American Physical Society Public Lecture, April 2005
 World Year of Physics, Sigma Pi Sigma Lecture, Wright State, April 2005
 Crump Lecture, St. Andrews School, Delaware , April 2005
 San Jose Resident Scholar Lecture, San Jose Performing Arts Center, April 2005
 Explorer Lecture, Cleveland Museum of Natural History, May 2005
 University of Georgia, VP Research Open Forum. June 27,2005
 University of Washington/ Wenatchee Confluence Technology Center, Wenatchee,
 WA, July 6, 2005
 Blossom Music Center, Cleveland Orchestra, Holst, The Planets, July 30, 2005
 Vancouver British Columbia, Rodgers Lecture American Urology Assoc., Aug 3, 2005
 100 Years in Physics, Singapore, Aug 12,2005
 International Conference on Physics Education Public Lecture, Delhi, India, Aug 2005
 2005 Jonah Lecture, Mount Allison University, Sackville, NB, Canada, Sept 12, 2005
 Maui, Hawaii, APS Nucl. Conference Public Lecture, Sept 17, 2005
 Visions Colloquium, IBM Yorktown Heights, Oct 4, 2005
 St. Louis Science Center, St. Louis, MO, Oct 8, 2005
 University Lecture, Rockefeller University, NY, Oct 14, 2005
 Center for Inquiry Lecture, New York Academy of Medicine, NY, Oct 18, 2005
 Presidential Lecture, Tulsa, OK, Oct 20, 2005
 American Enterprise Institute Keynote Address, Washington, DC, Oct 21, 2005
 National Council of Science Writers, Pittsburgh, PA, Oct 24, 2005
 International Humanism Conference, Amherst, NY, Oct 27, 2005
 Canadian Undergraduate Physics Conf, London, Ont, CAN, Oct 28, 2005
 Skeptics Society Lecture, Caltech, Pasadena CA Oct 30, 2005
 Categorically Not!, Santa Monica CA, Oct 30, 2005
 Chicago II, Kavli Inst. Public Lecture, Nov 3, 2005
 World Congress of Science Producers, Tokyo, Japan, Nov 7, 2005
 Smithsonian Institution, Washington, DC, Nov 9, 2005
 Frontiers of Astronomy, Cleveland Museum of Natural History, Nov 10, 2005
 World Year of Physics Lecture, Severance Hall, Cleveland OH, Nov 14, 2005
 IBM Lecture, Wittenberg College, Springfield, O, Nov 16, 2005
 Goethe Institute, Los Angeles, CA, Nov 19, 2005
 World Year of Physics Lecture, Kent State University, Nov 29, 2005
 Kavli Institute Public Forum on Cosmology, Chicago, Dec 12, 2005
 Akron Press Club, Jan 5, 2006
 Wheeler Opera House, Aspen Winter Series, Aspen CO, January 24, 2006
 Colorado College, Feb 2, 2006
 The City Club, Cleveland, Feb 3, 2006
 Cleveland Museum of Art, Feb 25, 2006
 Lower Columbia College, March 13, 2006
 St. Thomas, USVI, March 15, 2006
 College of New Jersey, March 28, 2006
 Wagner College, Staten Island, March 29, 2006
 Asimov Memorial Debate, American Museum of Natural History, March 29, 2006

Bob Dole Center, University of Kansas, Lawrence, KS, April 4, 2006
Kalamazoo College, Michigan, April 11, 2006
Texas A&M University, April 15, 2006
Duke University, May 23, 2006
Smithsonian Institution, Washington, July 25, 2006
Seattle Town Hall, Sept 7, 2006
Yale University, Sept 14, 2006
University of Colorado Boulder, Sept 22, 2006
SUNY Binghamton, Oct 13, 2006
Marist College, Oct 21, 2006
Vanderbilt University, Oct 30, 2006
Cleveland Orchestra, Severance Hall, Cleveland, Dec 8-10, 2006
Rowfant Club, Cleveland OH, Dec 20, 2006
Cleveland Museum of Natural History, Jan 14, 2007
Nashville Unitarian Church, Feb 28, 2007
University of Kansas, March 12, 2007
TV of Tomorrow, San Francisco, March 13, 2007
Allegheny College, NY, March 15, 2007
Smithsonian Institution, Washington, March 28, 2007
Lawrence Hall of Science, Berkeley, CA, April 7, 2007
Dyer Observatory Exploration Night, Nashville, TN, April 25, 2007
Veritas First Light Festival, Tucson AZ, April 26, 2007
St. Olaf College, May 4, 2007
Rally For Reason, Petersburg, KY, May 28, 2007
Brookhaven National Laboratory, May 30, 2007
Caltech, June 2, 2007
IdeaCity, Toronto, June 19, 2007
Ideas Festival, Aspen CO July 2-5, 2008
UCLA, July 29, 2007
Center for Inquiry, Cleveland Aug 1, 2007
Concordia University, Oct 18, 2007
Genoa Science Festival, Nov 2, 2007
Arizona State University Beyond Center, Nov 8, 2007
Smithsonian Institution, Jan 17, 2008
IIT, Kharagpur, India, Feb 1, 2008
University of Arkansas Centennial Lecture, Feb 7, 2008
American Enterprise Institute, Washington DC Feb 11, 2008
Michigan State University Distinguished Lecture, April 10, 2008
Trieste Science Festival, April 20, 2008
University of Zurich, May 19, 2008
U.C. Davis, June 3, 2008
Great Lakes Science Center, June 4, 2008
Ingenuity Festival, Cleveland OH July 26, 2008
City Club, Cleveland OH Aug 13, 2008
Sea of Faith, Melbourne Australia Sept 20, 2008
Templeton Lecture, Sydney Australia Sept 23, 2008
Creative Nonfiction, Pittsburgh, PA Oct 3, 2008
Beyond Belief, La Jolla CA Oct 4, 2008
Center for Inquiry, Portland OR Oct 15, 2008

Canadian Undergraduate Physics, Toronto Canada Oct 19, 2008
 Science and Public Policy, Minneapolis MN Oct 21, 2008
 Hampshire College, Amherst MA Oct 23, 2008
 New York State Teachers Convention, Albany, NY Nov 3, 2008
 La Ciudad de las Ideas, Puebla, Mexico Nov 6, 2008
 Fort Worth Texas, Nov 7, 2008
 UNESCO Inaugural meeting, International Year of Astronomy, Astronomy and
 Culture, Paris, France, Jan 19, 2009
 Darwinfest Minisymposium, Revolutionary Ideas, ASU, Tempe, AZ, Feb 12. 2009
 Purdue University, Feb 16 2009
 Middlebury College April 2009
 New School, NY April 2009
 University of Zurich, June 2009
 World Science Festival, June 2009
 Moonfest, NASA Ames, July 2009
 Division of Particles and Fields Annual Meeting, Detroit July 2009
 Australian National Science Week, National Lecturer, Aug 2009
 Face2Face Interview, Oct 2009
 Perimeter Institute, Quarks to the Cosmos Oct 2009
 CFI National Cruise, Nov 2009
 Scientific American Cruise, Dec 2009
 Todd Lecture, Butler University, Feb 2010
 Woods Lecture, Norwich University, Feb 2010
 Beattie Lecture, McGill University, Mar 2010
 Dunedin, New Zealand Mar 2010
 University of Auckland, Auckland, NZ Mar 2010
 Stockholm, April 2010
 World Science Festival, May 2010
 University of British Columbia, Vancouver, July 2010
 Australian National University, Sept 2010
 Smith Lecture, Davidson College, Oct 2010
 University of Alberta and Telos Science Center, Edmonton, Alberta, Sept 2010
 30th Anniversary Secular Humanism National Conference, Los Angeles, Oct 2010
 National Association of Montessori Teachers Keynote Address, Baltimore, Oct 2010
 Southern Oregon University, Oct 2010
 University of Maryland, *A Matter of Origins* Nov 2010
 Arizona State University, Great Debate Nov 2010
 Light in Winter Festival, Ithaca Jan 2011
 World Economic Forum, Davos Jan 2011
 Arizona State University, Great Debate Feb 2011
 Australia National University Feb 2011
 North Carolina State University, March 2011
 Chicago Public Library, April 2011
 American Atheists National Convention, April 2011
 California Institute of Technology, April 2011
 American Physical Society, May 2011
 Center for Inquiry Cruise, May 2011
 Australian National University, June 2011
 Curtin University, June 2011

Miegunyah Lecture August 2011
Oslo University Lecture September 2011
School of Life Lecture October 2011
Scientific American's Bright Horizons Cruise October 2011
Smithsonian Lecture January 2012
Caltech Lecture January 2012
National Capital Area Skeptics Talk January 2012
Ethical Humanists Society of Philadelphia January 2012
Museum of Natural History Lecture January 2012
ASU Origins Project, February 2012
Center for Inquiry, Calgary February 2012
Irving K. Barber Lecture, University of British Columbia, February 2012
The Little-Franklin Lecture, Auburn University March 2012
Chautauqua Institution, July 2012
Australian Institute of Physics August 2012
London School of Economics and Political Science, September 2012
New College of the Humanities, September 2012
A Universe from Nothing in Amsterdam September 2012
Lewes Skeptics in the Pub September 2012
Portsmouth Lecture October 2012
The Great Debate: The Origins of Deception October 2012
United States Naval Academy December 2012
Intelligence Squared Debate, Science Refutes God December 2012
UCSB Sage Center Lecture December 2012
Medical Health Physics Society January 2013
The Smithsonian January 2013
The Great Debate: Climate Change, Surviving the Future February 2013
Williams College February 2013
ANITA February 2013
Science and Film Lecture February 2013
TheBIGDebates – Islam or Science February 2013
Oxford Union Debate March 2013
Kit Kat Club March 2013
Royal Swedish Academy March 2013
Montana State University March 2013
Science, Myth, Reality: the Unbelievers Panel Discussion March 2013
The Storytelling of Science March 2013
Isaac Asimov Memorial Debate: the Existence of Nothing March 20, 2013
University of Texas at Austin April 2013
University of Bergen April 2013
University of Manchester April 2013
Radcliffe Institute for Advanced Study April 2013
University of New Orleans April 2013
Australia National University July 2013
Life, the Universe, and Nothing – A three-part conversation August 2013
Carleton University September 2013
The Royal Institution October 2013
Het Denkgelag Royale October 2013
University of South Florida November 2013

UC San Francisco November 2013
 Canberra Skeptics Lecture December 2013
 University of Wisconsin, February 2014
 United World College of South East Asia March 2014
 University of Alabama April 2014
 DAI – Heidelberg October 2014
 Astrophysics Research Center October 2014
 Origins Project Dialogue: Alda and Krauss January 2015
 A Passion for Science and Reason: An Evening with Richard Dawkins and Lawrence
 Krauss January 2015
 Origins Project Dialogue: Life and the Universe February 2015
 Origins Project Dialogue: Randomness and Uncertainty February 2015
 Nebraska Wesleyan University March 2015
 Chomsky and Krauss: An Origins Project Dialogue, March 2015
 For Thought Origins Lecture at Sydney Opera House June 2015
 For Thought Origins Lecture at The Wheeler Centre June 2015
 Singer and Krauss: An Origins Project Dialogue, October 2015
 University of Helsinki, November 2015
 New College of the Humanities, March 2016
 Depp and Krauss: An Origins Project Dialogue, March 2016
 Wycliffe College, March 2016

(d) Major Television Productions:

Dark Matter in the Universe, BBC Antenna 1989
 Escape from Earth, Discovery 1995
 The Science of Star Trek, BBC and Discovery, 1995
 Aliens, Are We Alone, Discovery 1995
 Mysteries of the Universe, NOVA 1998
 Universe 2001, Discovery and The Learning Channel 1999
 Voyage to Mars, The Learning Channel 1999
 The Final Frontier, BBC 2000-2001
 Discovering the Universe, NHK 2001
 How William Shatner Changed the World, Discovery, Mentorn Productions, 2005
 Black Holes, Horizon, BBC, 2005
 National Geographic “Naked Science:”, Space Travel 2005
 Discovery Cannel: “The Science of Star Gate”. 2005
 The Physics of Space Travel, “Starman”, Pioneer Productions, 2005
 National Geographic, ‘Naked Science’, Origin of Structure, 2006
 The History Channel, The Big Bang, 2006
 Science Channel, The Hawking Paradox, 2006
 The History Channel, Modern Marvels Star Trek Tech (Hosted by me), 2007
 The History Channel, Beyond the Big Bang, 2007
 National Geographic, ‘Naked Science’, The Big Bang, 2008
 PBS, “400 Years of the Telescope”, 2008
 Naked Science, How to Kill a Planet 2009
 Discovery, How to Engineer a Star, 2009
 Discovery, The Big Bang, 2009

National Geographic, Black Holes, 2009
BBC, Black Holes, 2009
Discovery, How to Engineer Galaxies, 2010
Discovery, How to Engineer Supernovae, 2010
Catalyst, Australian Broadcasting System, Sept and Oct 2010
National Geographic, Parallel Universes, 2010
How the Universe Works 2010-2015

(e) Music

Cosmic Reflections, Libretto for Narrated Symphony, World Premiere, Kennedy Center Nov 2009
Introduction to Haydn's *The Creation*, ASU Gammage Auditorium April 2015

(f) Radio and Television Commentary:

The Real Price of Creationism, Feb 12, 2004, Marketplace Commentary
Ideology Spending, March 24, 2004, Marketplace Commentary
Visa Battles, May 25, 2004, Marketplace Commentary
Another Space Race, July 29, 2004, Marketplace Commentary
Scientists Express Concern Over White House Policies Travis Smiley Show, Oct 26, 2004
Debate Over Intelligent Design Newshour with Jim Lehrer August 5, 2005
Evolution and the Catholic Church Talk of the Nation Science Friday, Aug 12, 2005
Theoretical Science Made Practical Marketplace Commentary: August 29, 2005
Hiding in the Mirror: The Mysterious Allure of Extra Dimensions Talk of the Nation Science Friday Oct 21, 2005
Facing Reality: Public Policy, Science Education, and the Emperor's New Clothes, CSPAN presentation of Keynote address at American Enterprise Institute, Oct 21, 2005
The Media Report: Bogus History and Pseudoscience Nov 11, 2005 Australian Radio National Interview with Stephen Crittendon,
NPR's All Things Considered Commentary: In Favor of Barring ID from the Science Classroom, Dec 20, 2005
In the Eye of the Beholder Marketplace Commentary January 30, 2007
University Presidents, Take Notes, Marketplace Commentary, April 30, 2007
Putting Lies and Fraud on Exhibit, Marketplace Commentary, May 25, 2007
The O'Reilly Factor, Fox Television, debate on Creation Museum, May 28, 2007
Scientific Illiteracy, CSPAN, telecast of speech at American Enterprise Inst, Feb 11, 2008
Daily Planet, Jan 20, 2009, interview in Paris following election of Barack Obama
Physics and the Universe, Radio New Zealand, interview on issues ranging from the future of the Universe to the Large Hadron Collider.
Big Questions in Cosmology Talk of the Nation Science Friday Apr 3, 2009
Discovery Channel Daily Planet Interview, May 2009, *Science of Star Trek*
A One-Way Trip to Mars? Talk of the Nation Science Friday Sept 11, 2009
Exploring Space, TVO Ontario, Agenda Program, Oct 20, 2009
Adjusting the Doomsday Clock Talk of the Nation Science Friday Jan 15, 2010
The Oil Spill and the Limits of Science Talk of the Nation Science Friday Jun 4, 2010
The Physics of Star Trek The Brent Holland Show Jul 7, 2010

Cosmology, Catalyst, September 16, 2010
Science and Morality Talk of the Nation Science Friday Nov 5, 2010
 SKA, Catalyst, February 17, 2011
Richard Feynman is The “Quantum Man” Talk of the Nation Science Friday March 25, 2011
Where are all the Aliens?, Catalyst, March 31, 2011
Discovery of Other Earths, Catalyst, April 7, 2011
Connecting Science and Art Talk of the Nation Science Friday April 8, 2011
Biggest Bang, Catalyst, June 16, 2011
In a Flash of Gamma-Rays a Star is Gone Talk of the Nation Science Friday, June 17, 2011
Parallel Universes, Catalyst, June 30, 2011
ABC Australia Canberra Radio AM Greg Bayliss Show, July 9, 2011
NATO plan to deploy ABMs in Europe RT News December 9, 2011
Understanding the God Particle: Lawrence Krauss Explains the Higgs Boson, CBC Radio, December 16, 2011
Christopher Hitchens CNN December 20, 2011
A Universe from Nothing Talk of the Nation Science Friday January 13, 2012
Coast to Coast, January 14, 2012
Quantum Man Arizona Horizon January 18, 2012
Talk Radio Europe, January 19, 2012
Quirks and Quarks, The CBC, January 21, 2012
A Universe from Nothing Studio 4 with Fanny Kiefer February 21, 2012
Reason Rally “Question Silly Beliefs” The Alyona Show March 27, 2012
Big Bang Could End with a Whimper TV New Zealand May 10, 2012
Why there is Something rather than Nothing? Equal Time for Free Thought June 2, 2012
The Colbert Report June 21, 2012
Hunting for Life in Other Worlds CNN August 12, 2012
Science vs. Religion CNN September 23, 2012
Fox with John Stossel December 13, 2012
Real Time with Bill Maher February 8, 2013
Anderson Cooper 360 February 15, 2013
ABC Australia Q&A February 18, 2013
Gripping Science Tales Need not be Science Fiction Talk of the Nation Science Friday March 29, 2013
The Morning Show, Global News Canada April 29, 2013
The Agenda with Steve Paikin April 30, 2013
ABC Conversations with Richard Fidler May 23, 2013
ABC Australia Q&A May 27, 2013
Adam Hills Tonight June 12, 2013
ABC Australia June 29, 2013
The Agenda with Steve Paikin July 3, 2013
The Agenda with Steve Paikin July 4, 2013
The Hour with George Stroumboulopoulos July 9, 2013
Custom Universe, Catalyst, August 29, 2013
Skeptic Fence Podcast November 23, 2013
Equal Time for Free Thought November 30, 2013

Detecting the “Bang” from the Big Bang, Talk of the Nation Science Friday, March 21, 2014
ABC TV Q&A June 2, 2014
The Agenda with Steve Paikin June 17, 2014
Larry King Now August 11, 2014
Michael Feldman’s Whad’ya Know? February 2015
The Weekly with Charlie Pickering, April 2015
ABC 7:30, June 29, 2015
ABC TV Q&A, June 29, 2015
Science of Sci Fi Films – face or fiction?, Catalyst, March 1, 2016
The Agenda with Steve Paikin, March 2016
Arizona Horizon, Monthly, 2012-

(g) Film

Documentary: *The Unbelievers* 2013
Salt and Fire 2016

Major Research Areas and Activities:

Theoretical Particle Astrophysics and Cosmology, including studies of the early universe, neutrino astrophysics, dark matter, dark energy, quantum field theory and gravity, black holes, stellar evolution, nucleosynthesis, eschatology.

Science and Society/Public Policy: Science Education, Science Writing, Public School Science Curricula, Science and Religion, Scientific Integrity in Government, Missile Defense, Nuclear Proliferation, Science and Pseudoscience

Related Professional Activities

1. Arms Control and Disarmament and Science and Society, Organizational Activities- I was an organizer and lecturer for the Union of Concerned Scientists Convocation against Nuclear War in 1981, and Regional Co-ordinator for the International Physicists Petition for a Nuclear Freeze. In 1987-88 I was a regional co-ordinator for the FAS Congressional Exchange Program, and more recently been active writing and lecturing on issues associated with National Missile Defense. I served on the American Physical Society Panel on Public Affairs for two years and served on a presidential candidacy Policy Planning Team. In February 2004, I was among a group of 62 prominent scientists that wrote a public statement regarding Scientific Integrity in Washington. I was on the Board of Scientists and Engineers for America, and the Board of Ohio Citizens for Science, and was Chair of the American Physical Society Forum on Physics and Society, and was Chair of the Physics Division of the American Association for the Advancement of Science,. In 2007, I participated in a trans-atlantic press event unveiling the new Doomsday Clock, and associated with that I have been writing extensively on issues related to nuclear defense and nuclear proliferation, and the dangers associated with a new nuclear arms race. In 2009 I was named Co-Chair of the Bulletin’s Board of

Sponsors and began embarking on a new set of activities designed to reduce the threat of nuclear war.

2. Science Education- I have maintained a strong interest in science education at all levels, and had extensive teaching experience-from a university level to lectures for the general public. While still a student I worked with the Ontario Science Center, giving public demonstrations, and training staff there. At M.I.T. I ran a live phone-in T.V. program on physics for undergraduates, and was nominated for a teaching award for instruction during a semester in which I received the highest teaching evaluation score in the undergraduate course guide. During that time I also taught a one-semester science course in the Cambridge public school system. At Yale, I taught courses ranging from a general physics course for non-scientists, to advanced graduate courses in particle physics, and in cosmology. I also served for two years on the Yale Course of Study committee, where I played a major role in revising the science requirements for undergraduates. In 1991 I was named a Sigma Xi National Lecturer, and visited campuses and industries around the country for two years giving public lectures. I also directed a 3-day seminar for the Association of Yale Alumni entitled The Legacy of Newton. In 2006 I was named a Phi Beta Kappa National Visiting Scholar, to be lecturing to Phi Beta Kappa Chapters around the country.

At CWRU I sponsored and/or organized outreach programs as well as lecturing to high school and public school students and teachers throughout Northeast Ohio, including visiting schools to lecture or talk to students about science, and participated in programs such as the Young Scholars Program, Science Olympiad, and served on the Executive Committee of the Board or Trustees of the Cleveland School for the Arts, where I initiated a science committee that still exists to enrich the science program at the school. In the physics department itself I supervised the overhauling of the undergraduate and graduate physics curricula, the establishment of new undergraduate laboratories, the creation of six new undergraduate major tracks, and one new graduate degree program, and the creation of a new public lecture series. I also brought together a group of faculty from science and the humanities to help establish the form the new Seminar Approach to General Education curriculum at Case.

I was involved in the preparation of a national curriculum on cosmology for high school teachers sponsored by the American Association of Physics Teachers, and presented a series of workshops for teachers based on a teaching manual I wrote. In 1999 I served as an outside adviser to MIT for their new program aimed at introducing writing and communication aspects across their science curriculum. I have also given presentations on teaching science at the National Teacher Training Institute, and at regional teachers meetings, and at the APS-AAPT national meeting in Columbus. I presented the opening lecture at the American Association of Physics Teachers meeting in San Antonio in 1999, and a Shell Lecture at the 2001 National Association of Science Teachers Conference in St. Louis. Most recently, in March 2002, I testified in a public presentation before the Ohio Board of Education on Science Standards for High School Science Classes in Ohio. I was an American Physical Society Centennial Lecturer in 1998. In 2004, I was awarded the Oersted Medal by the AAPT, its highest recognition for teaching. I am in the process of preparing a new physics text for non-scientists, in association with Prentice-Hall. Finally, I have been on the executive committee of the board of trustees of the Great Lakes Science Center, the Board of the Cleveland Museum of Natural History, and the Board of the new Science Fiction Experience Museum in Seattle.

3. History Research- I pursued a research interest in Canadian History for several years, including one full year doing primary research at the Public Archives of Canada, Ontario, and a variety of private collections. During that time I was granted access to a variety of restricted materials from the files of the Attorney General of Ontario for work on the social history of the depression in Canada. Also during this period I helped edit a book on the Hutterites in Canada.

4. Popular writing, and Public Education: The popular science book I wrote in 1989 was named an Astronomy Book of the Year by the Astronomical Society of the Pacific (1990) and was been translated into 4 languages. My next book appeared in 1993, was named among the “best books of the year” by Library Journal, and was translated in 12 languages. My next book, The Physics of Star Trek appeared simultaneously in audio tape format in 1995, and was translated into thirteen foreign languages following its success as a national bestseller in the U.S. in 1995, and the U.K. in 1996, selling over 250,000 copies in this country. My sixth book, Atom, appeared in April of 2001 and was awarded the American Institute of Physics Science Writing award. My book Quantum Man: Richard Feynman’s Life in Science was named Book of the year 2011 by Physics World and my latest book A Universe from Nothing was a New York Times Best Seller. In addition I regularly contribute to various newspapers, magazines, radio and television programs on science issues both in the U.S. and around the world. In connection with my writing, I have given popular lectures at such places as the American Museum of Natural History in New York, and the Albert Einstein Planetarium at the Smithsonian Air and Space Museum in Washington, as well as appearing on numerous radio and television programs in the U.S., Canada and Europe---including three BBC documentaries, NPR Science Friday, NPR All Things Considered, Nova, The Discovery Channel, National Geographic, UPN, The Learning Channel, Good Morning America, CNN, CBC As It Happens, CBC Quirks and Quarks, Canada A.M, The Nature of Things. I have written popular articles for Scientific American, the McGraw-Hill Encyclopedia of Science, Yearbook of Science, the Reference Encyclopedia of Astronomy and Astrophysics, Nature, Discover, Wired Magazine, Physics World Magazine, Wizard Magazine, and book reviews for a variety of magazines, including Science, American Scientist, Physics Today, The Sciences, New Scientist, and Natural History. I also hosted a web site for New Scientist Magazine, in which I responded to questions from readers about physics, and have written a monthly commentary column in Nature, Physics. I was also involved in producing and appearing in several other documentaries, including appearing with William Shatner in a documentary on the science of Star Trek, and hosting a documentary for Modern Marvels, by the History Channel. I am currently working as executive producer of a feature film with Richard Dawkins.

5. Science, Public Policy, and Society: I have become increasingly active, in both organizing, and speaking out on issues associated with science and society. I regularly write on science issues for the New York Times, and my opinion pieces have appeared in such newspapers the L.A. Times, the International Herald Tribune, The Washington Post, and The Chronicle of Higher Education, as well as magazines including New Scientist, Discover, Seed, and TV Guide. I have been a commentator for both Public Radio International, and National Public Radio, with commentaries airing on both Marketplace, and Morning Edition. I have also appeared on national television news programs, including Nightline, Lehrer News Hour, ABC News, and Fox News. In addition to my

writing, and lecturing (I give on average 20-30 public lectures on these issues each year), I have become increasingly active in organizing on two different issues: scientific integrity in government, and the attack on science teaching in our public schools. I helped lead the effort in Ohio during the period 2002-2006, during which we ultimately successfully fought back an effort to alter the science standards and curricula in the public schools aimed at attacking the teaching of Evolution in science classes, and have spoken in states such as Kansas and Colorado on this issue, as well as advising lawyers in Dover Pennsylvania during the trial there. In 2005 I worked actively and successfully to get the Vatican to re-affirm their commitment that evolution was consistent with Catholic Theology. In addition, I have worked actively to combat efforts to censor and distort the results of science in government advisory panels, public documents etc, and was one of 60 scientists who wrote a public letter to the President on this issue. I currently am on the board of DEFCON (Defense of the Constitution) and the Board of Sponsors of the Bulletin of the Atomic Scientists. In 2006 I created the organization Help Ohio Public Education, which recruited pro-science candidates for State School Board elections. All of our candidates were successfully elected. In Dec 2007, I helped establish and joined the steering committee of *ScienceDebate2008*, a group that now represents more than 100 major organizations calling for a Presidential Debate on Science and Technology.

6. Science and Faith: Associated with my activities promoting the understanding of science, and also defending science against attack, I have become increasingly active in thinking and writing about issues associated with science and spirituality. Because of the increasing apparent popular conflict between these two distinct areas of human intellectual activity it is particularly important that an intellectually rigorous exploration of the nature of science and its possible impact upon faith be carried out. In my own case, this has been an evolving intellectual journey. While I initially focused on the separate natures of science and spirituality, I have responded to what I perceive as inappropriate misunderstandings of both science and faith by trying to elucidate the role that science can and cannot play in our understanding of possible purpose and design in nature and by trying to demonstrate how science must both guide faith but also how it is possible to enrich it. At the same time I have tried to emphasize the limitations of science when it comes to spiritual understanding. My efforts have focused on writing for a popular audience, and more recently have taken part in various academic forums on these issues, including delivering one of the 2006 Terry Centennial Lectures on Science and Faith at Yale University. Interestingly, my own scientific work, which has focused in part on eschatological issues in the past few years, has interesting implications for our understanding of our place in the Universe in both a spatial and temporal sense, of relevance to the general questions of origin, and purpose in the universe.

7. University Educational Leadership: In 1993, I moved to Case Western Reserve University to become Chairman of the Physics Department in order to oversee a major revitalization of the department and its facilities, and also to help in launching the new College of Arts and Sciences. During the twelve years of my Chairmanship, we completed a six million dollar renovation of the Physics research and teaching facilities, hired nine outstanding new faculty, created a new nationally recognized research group in particle astrophysics with a strong theoretical group and new experimental programs ranging from dark matter detection to high energy gamma ray astrophysics, overhauled the undergraduate and graduate curricula, increased the size of the past two sophomore classes of physics majors to 28 students (perhaps the largest set of physics majors per

capita of any leading research university), built and outfitted a new set of introductory physics laboratories which now service over 600 undergraduates per year, created a new Engineering Physics major, a new Bachelor of Arts in Physics degree, a new BS in Mathematics and Physics, a new BS Physics degree with a concentration in Biophysics, and created two new prominent public lecture series. The departmental college-funded operating budget increased by \$300,000, and we obtained in excess of 5 million dollars in sponsored research funds per year, and raised over \$8 million in new endowments from outside donors. According to the most recent national ranking of Ph. D. programs in Physics, the department ranked 16th in the country, up from 108th before I became Chair.

At the College level I have been heavily involved in various College and University projects, including fundraising, planning, and curricular issues. I have also worked intimately with the University Development Office, the Office of Alumni affairs, and the Case Alumni Association in fundraising both within Cleveland and around the world. I have taken a leadership role in visiting donors, lecturing to alumni groups, and preparing proposals for foundation support. In 1994, and again in 2006 I was elected to a three year term on the faculty Senate, dealing with University-wide issues. I have served on the Provosts advisory committee on tenure and promotion for the Business School, and also been involved on two long-term committees that have served to familiarize me with most aspects of university affairs. First, I served on the committee overseeing a year-long self-study in 1995 associated with the successful re-accreditation of CWRU, focusing on different areas of University activity, including electronic learning, undergraduate education, research, and continuing education. Next, in 1996-97, and again in 1997-98 I served on a Search Committee for Vice President for Research. Since this was a new position in 1996, the committee spent considerable effort exploring its possible scope and duties. When the position again became vacant in 1997, the new committee interviewed individuals both locally and nationally to gain advice on a variety of issues, focusing on the important question of technology transfer. As a result, I became much more aware of the challenges, and opportunities involved in this important area. I fostered the creation of an exciting new Masters Program in Physics Entrepreneurship, which we hope will be used as a new model for graduate education in physics at a national level. I raised 1.5 Million dollars to initiate this program, and have helped publicize it nationally. This program has recently been extended to incorporate other science departments at CWRU. Our first two entering classes have garnered three major business plan competition awards, and already two new companies have been created. I also served on the University Stakeholders committee, appointed by the President to raise our profile locally and nationally.

Based on my interests in expanding the research profile of the University, I was asked to Chair a President's Commission on Graduate Education and Research, which examined ways to alter the University administrative structure and fundraising priorities in order to enhance the research and graduate education at CWRU. This commission produced a report in April of 2004, and on that basis a new Research Council has been established, of which I am a member.

I have led the creation of a new Center for Education and Research in Cosmology and Astrophysics at the University, in coordination with the Cleveland Museum of Natural History. This center will ultimately support the growth of the nationally ranked experimental and theoretical research program that we have built at CWRU, as well as play a leadership role in enhancing public understanding of developments in cosmology and astrophysics by (1) bringing in CERCA fellows, postdoctoral researchers who will work with faculty here, and will also interact with the Cleveland Museum of Natural

History Shafran Planetarium to help develop new graphical presentations of forefront developments in cosmology and astrophysics, (2) hosting senior scientists who will visit for short terms, (3) sponsoring public lectures and conferences. The inaugural event sponsored by CERCA, and funded in part by the Kavli Foundation, was a conference on the Future of Cosmology, part of which was broadcast nationally on NPR, and which featured public lectures by Steven Weinberg and Stephen Hawking.

I also played a key role in helping shape the form of the new Seminar Approach to General Education requirements, which was instituted in 2005 for all undergraduates at CWRU. This program was under development for several years, through a pilot process, and a great deal of discussion and debate has been taking place within the faculty to determine its final form. I led a small subcommittee of colleagues from the Humanities and Science Departments to help develop a proposal that was able to overcome an impasse in the deliberations, and which helped shape the final form of the proposal that was approved by the College of Arts and Sciences in the spring of 2004.

During the period 2005-7, I took a variety of different roles at the University, including helping to plan for the new West Quad Research Complex for the Medical School, Chairing an external Strategic Planning committee for the Dept. of Chemistry, and Chairing the Advisory Committee on Research Computing for the VP for Information Technology Services.

In 2008, I moved to Arizona State University to Direct the ASU Origins Project which will become a national center for research and education in issues associated with Origins, including origins of the universe, the galaxy, the solar system, human origins, origins of cognition, etc. This will also involve new undergraduate and graduate teaching paradigms and public outreach programs, the first of which was a major Origins Symposium held April 3-6, 2009, and live broadcast on the web (see www.origins.asu.edu). I also am co-directing a Cosmology Initiative (see www.cosmology.asu.edu).