## CURRICULUM VITAE: CLIFFORD M. WILL

## STATISTICS

Born:	November 13, 1946, Hamilton, Ontario, Canada
Citizenship:	United States
Married:	Leslie Saxe Moser, June 26, 1970
Children:	Elizabeth Sue Torop, Rosalie Maud Will

## **PRESENT POSITION:**

Distinguished Professor of Physics, Department of Physics, University of Florida, Gainesville August 2012 –

### **CONCURRENT POSITION:**

James S. McDonnell Professor of Space Sciences, Emeritus, Department of Physics and Mc-Donnell Center for the Space Sciences, Washington University, St. Louis, September 2012 –

Chercheur Associé, C.N.R.S, Institut d'Astrophysique de Paris April 2013 –

#### **PREVIOUS ACADEMIC POSITIONS:**

James S. McDonnell Professor of Space Sciences Department of Physics and McDonnell Center for the Space Sciences, Washington University, St. Louis, January 2005 – September 2012

Professor, Department of Physics and McDonnell Center for the Space Sciences, Washington University, St. Louis,

September 1985 – January 2005

Chairman, Department of Physics, Washington University, St. Louis, July 1991 – June 1996, July 1997 – June 2002

Associate Professor, Department of Physics and McDonnell Center for the Space Sciences, Washington University, St. Louis, September 1981 – September 1985

Assistant Professor, Department of Physics, Stanford University, August 1974 – August 1981

Enrico Fermi Fellow, Enrico Fermi Institute, University of Chicago, September 1972 – August 1974

Instructor in Physics, California Institute of Technology, June 1971 – June 1972

### VISITING PROFESSORSHIPS, OTHER POSITIONS:

Chercheur Associé, C.N.R.S Institut d'Astrophysique de Paris June 2003 – August 2004, May – August 2005, June – December 2006, May – October 2007, June – October 2008, May – August 2009, June 2010 – August 2011, June – October 2012

Visiting Professor, Université Pierre et Marie Curie, Paris; Visiting Professor, Institut Henri Poincaré & Université Paris IX, September 2006 – October 2006

Visiting Professor, Racah Institute of Physics, Hebrew University, Jerusalem, Israel January – July 1997

Chercheur Associé, C.N.R.S. Observatoire de Paris, Meudon July – December 1996

Visiting Associate in Physics, California Institute of Technology, June – July 1976

Research Fellow in Physics, Kellogg Radiation Laboratory, California Institute of Technology, June – September 1972, May – June 1971

Graduate Teaching Assistant in Physics, California Institute of Technology, 1968-1970

## **EDUCATION:**

Ph.D., Physics, California Institute of Technology, 1971 Thesis Advisor: Kip S. Thorne
B.Sc., Applied Mathematics and Theoretical Physics, McMaster University, 1968
Pre-college education, Hamilton, Ontario

### AWARDS, HONORS:

Einstein Prize, American Physical Society, 2021 Albert Einstein Medal, Albert Einstein Society, Berne, Switzerland, 2019 Fellow, International Society on General Relativity and Gravitation, 2016 Doctor of Science honoris causa, University of Guelph, 2013 Elected to the US National Academy of Sciences, 2007 Fellows Award, St. Louis Academy of Sciences, 2004 Elected Fellow, American Academy of Arts and Sciences, 2002 Distinguished Alumnus Award in the Sciences, McMaster University, 1996 Fellow, American Physical Society, 1990 American Institute of Physics Science Writing Award, for "Was Einstein Right?", 1987 The Canadian Association of Physicists Prize Examination Award, 1968 The Burke Memorial Ring, McMaster University, 1968 The Chancellor's Gold Medal, McMaster University, 1968 The Governor General's Medal, McMaster University, 1967 Dean's Honor List, McMaster University, 1964 – 1968

#### SCHOLARSHIPS, FELLOWSHIPS:

John Simon Guggenheim Memorial Foundation Fellowship, 1996 – 1997 J. William Fulbright Scholarship, Council for International Exchange of Scholars, 1996 – 1997 Alfred P. Sloan Foundation Research Fellowship, Stanford University, 1975 – 1979 Mellon Foundation Junior Faculty Fellowship, Stanford University, 1978 – 1979 Enrico Fermi Fellowship, University of Chicago, 1972 – 1974 Earle C. Anthony Fellowship, California Institute of Technology, 1970 – 1971 Gulf Oil Corporation Fellowship, California Institute of Technology, 1969 – 1970 Isabella Campbell McNee Scholarship, McMaster University, 1964 – 1968 J. L. W. Gill Scholarship, McMaster University, 1966 – 1967 Gerald and Verna Simpson Memorial Prize, McMaster University, 1965 – 1966 Yates Scholarship, McMaster University, 1965 – 1966 McMaster University Scholarship, 1964 – 1965

### **PROFESSIONAL ACTIVITIES:**

#### **Elected Society Offices:**

- Secretary, Class 1 (Physical and Mathematical Sciences), National Academy of Sciences, 2024 - 2027
- Chair, Section 13 (Physics), National Academy of Sciences, 2019 2022
- Chair, Astrophysics Division, American Physical Society, 2012 2013 (Vice-Chair, 2010 2011, Chair-Elect, 2011 2012)
- President, International Society on General Relativity and Gravitation, 2004 2007, Deputy President, 2007 – 2010
- Governing Committee, International Society on General Relativity and Gravitation, 1995 2004
- Chair, Topical Group on Gravitation, American Physical Society, 2000 01 (Vice-Chair, 1998 99, Chair-Elect, 1999 2000)

Executive Committee, Astrophysics Division, American Physical Society, 1988 – 1990

#### <u>Committees:</u>

- Chair, Selection Committee for American Physical Society Einstein Prize in Gravitational Physics, 2024
- Next Generation Gravitational Wave Detector Concept Subcommittee, National Science Foundation, Mathematical & Physical Sciences Advisory Committee, 2023 – 2024
- Project Advisory Committee, Next-Generation Event Horizon Telescope, National Science Foundation, 2021 –
- Intelligence Science and Technology Experts Group, National Academy of Sciences & Office of Director of National Intelligence, 2015 –
- Chair, Fellowship Committee, International Society on General Relativity and Gravitation, 2012 2013

Space Studies Board (National Academy of Sciences/National Research Council), 2011 – 2015

Gravitational Wave International Committee, 2000 – 2018

Cosmology and Fundamental Physics Science Panel, ASTRO 2010 Decadal Survey of Astronomy and Astrophysics, (National Academy of Sciences/National Research Council), 2009

- Chair, Science Advisory Committee for Gravity Probe-B, National Aeronautics and Space Administration, 1998 – 2011
- Beyond Einstein Program Assessment Committee (National Academy of Sciences/National Research Council), 2006 2007
- Committee of Visitors, Physics Division, National Science Foundation, 2006
- Chair, Selection Committee for American Physical Society Einstein Prize in Gravitational Physics, 2002
- Committee on Physics of the Universe, (National Academy of Sciences/National Research Council), 2000 – 2002
- Committee on Gravitational Physics, (National Academy of Sciences/National Research Council), 1997 – 1999.
- Discipline Working Group, Microgravity Physics, National Aeronautics and Space Administration, 1997 – 1999
- Working Group on Relativity in Celestial Mechanics and Astrometry, International Astronomical Union, 1997 –
- Task Group on Space Astrophysics and Astronomy, Space Studies Board (National Academy of Sciences/National Research Council), 1996
- Chair, Search Committee for Editor of Reviews of Modern Physics, 1994 1995
- Task Group to Study Gravity Probe-B, Naval Studies Board (National Academy of Sciences/National Research Council), 1995
- Education Committee, American Physical Society, 1994 1996
- Working Group on the Application of General Relativity to Metrology, Comité Consultatif pour la Définition de la Seconde, Bureau International des Poids et Mesures, 1993 - 1997
- American Physical Society Task Force to review Reviews of Modern Physics, 1992 1993
- Satellite Test of the Equivalence Principle (STEP) Theory Panel, National Aeronautics and Space Administration and European Space Agency, 1992 – 1993
- Committee on Fundamental Constants and Basic Standards, National Research Council, 1990-1992
- Space Science Working Group, Association of American Universities, 1989 1991
- Science Coordinating Committee for Experimental Gravitation, National Aeronautics and Space Administration, 1988 – 1991
- Introductory University Physics Project, American Association of Physics Teachers and American Physical Society, 1988 – 1990
- Astrophysics Management Operations Working Group (Astrophysics Council), National Aeronautics and Space Administration, 1986 – 1988
- Chairman, Committee on Accuracy of Time Transfer in Satellite Systems, Air Force Studies Board, National Research Council, 1984 – 1986
- ESRO/NASA Review of the SOREL Project, Marshall Space Flight Center, Huntsville, Alabama, November 7 – 8, 1973

SAO/NASA Review of the Gravitational Redshift Rocket Probe Experiment, Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, October 24 – 25, 1973

### **Editorial and Advisory Boards:**

Editorial Board, Living Reviews in Relativity, 1998 – 2020

Editor-in-Chief, Classical and Quantum Gravity, 2009 – 2018

- Scientific Advisory Board, Max Planck Institute for Gravitational Physics in Postdam and Hannover, Germany, 2006 – 2012
- Advisory Board, Institute for Gravitation and the Cosmos, Pennsylvania State University, 2007 2012

Associate Editor, *Physical Review D*, 1999 – 2001

Editorial Council, Annals of Physics (N.Y.), 1990 – 2002

Editorial Board, Classical and Quantum Gravity, 1992 – 1996

Divisional Associate Editor (Gravitation and Astrophysics), *Physical Review Letters*, 1989 – 1992

American Association of Physics Teachers, Resource Letters Editorial Board, 1988 – 1991

#### **Conference or Workshop Organization:**

- Chair, Program Committee, American Physical Society "April" Meeting, April 14 17, 2018 (Chair-Elect, 2017; Past-Chair, 2019)
- Scientific Organizing Committee, The Era of Gravitational-Wave Astronomy, 33rd Institut d'Astrophysique de Paris Colloquium, June 26 30, 2017
- Scientific Organizing Committee, The first observation of a binary black hole merger: Status and future prospects, Albert Einstein Institute, Hanover, May 23 26, 2016
- Organizer, 8th Gulf Coast Gravity Meeting, University of Florida, February 27 28, 2015
- Co-Director (with Gerhard Schäfer), International School of Physics "General Relativity @ 99", Physikzentrum Bad Honnef, Germany, September 14 19, 2014
- Scientific Organizing Committee, 26th Texas Symposium on Relativistic Astrophysics, Sao Paolo, Brazil, December 2012
- Scientific Organizing Committee, Relativity and Gravitation 100 Years after Einstein in Prague, Prague, Czech Republic, June 25 29, 2012
- Scientific Organizing Committee, Bringing Black Holes into Focus: The Event Horizon Telescope, Tuscon, January 18 – 20, 2012
- Scientific Organizing Committee, COSPAR Symposium on Probing Strong Gravity with Gravitational and Electromagnetic Waves, Bremen, Germany, July 18 – 25, 2010
- Scientific Organizing Committee, International Astronomical Union Symposium on Relativity in Fundamental Astronomy: Dynamics, Reference Frames, and Data Analysis, Virginia Beach, USA, April 27 - May 1, 2009
- Scientific Organizing Committee, Post Newton 2008 International Workshop, Jena, Germany, June 11 – 14, 2008.

- Chair, Scientific Organizing Committee, Workshop on the Interface between Post-Newtonian Theory and Numerical Relativity, Washington University, February, 2007
- Scientific Organizing Committee, 6th International LISA Symposium, Goddard Space Flight Center, June 19 – 23, 2006
- Organizer, Workshop on Alternative Theories of Gravity, 17th International Conference on General Relativity and Gravitation, July 2004
- Organizer, Workshop on Approximation Methods, 16th International Conference on General Relativity and Gravitation, July 2001
- Organizer, Workshop on Experimental Tests of General Relativity: Strong Gravity and Gravitational Waves, 9th Marcel Grossman Meeting on General Relativity, Rome, July 2000
- Co-Organizer, KipFest, Conference in Honor of the 60th Birthday of Kip S. Thorne, California Institute of Technology, Pasadena, June 1 – 3, 2000
- Organizer, Focus Session on "Gravitational Radiation: Confronting Theory with Experiment", American Physical Society/American Association of Physics Teachers Meeting, April 1998
- Organizer, Workshop on Experimental Tests of General Relativity, 15th International Conference on General Relativity and Gravitation, December 1997
- Organizer, Workshop on Experimental Tests of General Relativity, 8th Marcel Grossman Meeting on General Relativity, June 1997
- Organizer, Invited Session, "Promoting Physics to the Public", American Physical Society/American Association of Physics Teachers Meeting, May 1996
- Organizer, Invited Session, "Physics, the Media and the General Public", American Physical Society/American Association of Physics Teachers Meeting, April 1995
- Organizer, Symposium on Gravitational Radiation, 17th Texas Symposium on Relativistic Astrophysics, December 1994
- Organiser, Minisymposium on Gravitational Radiation, Cornelius Lanczos International Centenary Conference, December 1993
- Scientific Organizing Committee, 16th Texas Symposium on Relativistic Astrophysics, December 1992
- Organizer, Invited Sessions, "General Relativity: Classical, Quantum and Astrophysical", "General Relativity: Past, Present and Future", "Experimental Gravitation" and "Cosmology", American Physical Society Meeting, April 1990

National Advisory Committee, Michelson-Morley Centennial Symposium, 1987

#### Lectureships and Summer/Winter Schools:

- The Peterson Public Lecture, Kansas State University, Manhattan KS March 8, 2022
- Gravitational Waves 2018, École de Physique des Houches, France July 2 – 27, 2018
- Dublin School on Gravitational Wave Source Modelling, University College, Dublin June 11 – 22, 2018

Summer School On Gravitational-Wave Astronomy, International Center for Theoretical Sciences, Tata Institute for Fundamental Research, Bangalore, India July 25 – 29, 2016 The Norman M. Hulings, Jr. Memorial Lecture, University of Tulsa March 4, 2016 The Scott Lectures, Cambridge University October 26 - 30, 2015Kavli Foundation Plenary Lecture, American Physical Society Meeting, Baltimore, April 13, 2015 The Henry Primakoff Lecture, University of Pennsylvania April 8, 2015 10th Mexican School on Gravitation and Mathematical Physics, Playa del Carmen, Mexico December 1 - 5, 2014James McDonnell Distinguished Lecture, Washington University April 11 – 12, 2012 The Larry Jasper Lecture, Lifelong Learning Program, Washington University March 20, 2012 SIGRAV Graduate School in Contemporary Relativity and Gravitational Physics, Como, Italy May 11 - 15, 2009 Gunnar and Gunnel Källén Memorial Lecture, Lund University, Sweden September 8, 2008 Distinguished Lecture Series, Department of Physics, Arizona State University November 28, 2007 Troisième Cycle de la Physique en Suisse Romande, École Polytechnique Fédéral de Lausanne, Switzerland, September 20, 27; October 4, 11, 2007 General Relativity Trimester, Institut Henri Poincaré, Paris September 26 – 29, 2006 International School of Astrophysical Relativity "John A. Wheeler", Erice, Sicily June 1 – 6, 2006 The Fred Elston Memorial Lecture, Embry-Riddle Aeronautical University, Daytona Beach March 11, 2006 Director's Distinguished Lectureship, Lawrence Livermore National Laboratory December 6, 2005 Canadian Association of Physicists World Year of Physics National Lecture Tour A series of public lectures in 21 cities across Canada (including 3 in French) October 5 – November 19, 2005Herzberg Memorial Lecture, Canadian Association of Physicists Congress, Vancouver June 5, 2005 The Emilio Segré Lecture, University of California, Berkeley

October 20, 2004

- The Cruikshank Lecture, University of Rhode Island May 3, 2002
- The Henry Louis Smith Lecture, Davidson College November 9, 2000
- The Thomas Gold Lectures, Department of Astronomy, Cornell University September 25 – 28, 2000

The Kaczmarczik Lecture, Department of Physics and Atmospheric Science, Drexel University, Philadelphia October 1, 1998

Stanford Linear Accelerator Center Summer School: "Gravity: From the Hubble Length to the Planck Length"

August 3 - 11, 1998

- The Montgomery Lecture, Department of Physics and Astronomy, University of Nebraska September 25, 1997
- The 11th Annual Peyton N. Rhodes Lecture, Rhodes College, Memphis September 16, 1997
- The Arnold Rosenblum Memorial Lecture, Hebrew University, Jerusalem May 13, 1997
- Scottish Universities Summer School on Physics, University of Aberdeen July 24 – 28, 1995

UPDATE (University Physics Departments and Alliances for Teacher Enhancement) Summer Institute, University of Massachusetts July 18 – 22, 1994

- Patton L. Seifert Memorial Lecture, Montana State University March 9, 1993
- 1st Iberian Meeting on Gravity, Evora, Portugal September 21 – 26, 1992
- Banff Summer Institute on Gravitation, Banff, Canada August 12 – 25, 1990
- The Philips Lecture, Haverford College, PA November 11, 1987
- The Richtmyer Memorial Lecture, American Association of Physics Teachers/American Physical Society Joint Meeting, San Francisco, CA January 30, 1987
- The Birckhead Lecture, St. Paul's School, Concord, NH November 3, 1983
- International School of Cosmology and Gravitation, Erice, Sicily May 10 – 20, 1977
- June Institute of Astronomy, University of Toronto

June 10 – 13, 1975

International School of Physics "Enrico Fermi", Course 56, Varenna, Italy July 17 – 29, 1972

## Participant:

1993 Nobel Prize Ceremonies, Stockholm, December 7 – 11, 1993

Scientist to Scientist Colloquium, Keystone, Colorado August 16 – 20, 1992

Ecole d'Ete de Physique Theorique, Les Houches, France, July 30 – August 31, 1972

Montana State University Summer Workshop on General Relativity, Bozeman, Montana, July 15 – August 28, 1971

## **Consultantships:**

Science Consultant, Einstein's Incredible Universe, Cosmic Picture 2014 –

Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, June 1 – September 30, 1975

Marshall Space Flight Center, Huntsville, Alabama July 3, 1973 – January 31, 1974

Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, May 15 – 17, 1973

# Memberships:

Academy of Science, Engineering and Medicine of Florida American Academy of Arts and Sciences (Fellow) American Association of Physics Teachers American Astronomical Society American Physical Society (Fellow) International Astronomical Union International Society on General Relativity and Gravitation (Fellow) National Academy of Sciences (US) St. Louis Academy of Sciences (Fellow) Sigma Xi