

Resume'
of
Warren W. Buck

Summary:

Warren Buck is presently Professor of Physics and Acting Director of the new Science and Technology Program and Chancellor Emeritus the University of Washington, Bothell (UWB), one of three University of Washington (UW) campuses. Dr. Buck returned to the faculty in Sept 2006, taught physics at UW Seattle as Adjunct Professor of Physics, and keeping this adjunct

appointment, returned to the faculty of UWB in 2008 to [teach](#).



The Science and Technology Program will bring far more STEM fields to the UWB campus and it is a pleasure to be able to help launch this new program as acting director.

During his six year tenure as chancellor, UWB grew from offering upper division undergraduate and several Masters programs only to a full 4-year institution admitting freshmen for the first time Sept 2006. The UWB presently has a student body of approximately 2,200 and moved to its permanent campus August 2000 in the city of Bothell. This new campus is co-located with and provides infrastructure support to Cascadia Community College.

As Chancellor from June 1999 through June 2005, Buck oversaw the completion and major portion of the construction of the Bothell campus, completed in 2001; and, administered the high quality type of educational experience that is characteristic of the University of Washington.

The campus construction project was approximately \$180 million that included the co-located Cascadia Community College. Five new academic curricula were brought on board during his tenure as well as growing a \$40,000 budget reserve into more than \$1.6 million.

Among other things, Buck established the Vice Chancellor administrative structure presently in place at UW Bothell. Soon afterwards, UW Tacoma recognized the benefits and established the similar administrative structure.

As chancellor of the UW Bothell, Buck also served in a capacity to help manage the entire University of Washington through serving on the President's Cabinet, Provost's Staff, Board of Deans, and advising the Athletic Director via the Tyee Board of Advisors.

Buck is nationally and internationally recognized for his work in physics and physics education and is a Fellow and Life Member in the American Physical Society.

Buck is formerly founding Director/Principal Investigator of the Nuclear/High Energy Physics (NuHEP) Research Center of Excellence and Full Professor of Physics at Hampton University in Hampton, Virginia. Upon his leaving Hampton to assume the chancellor' post at UWB, the successful NuHEP Center had six senior researchers of professorial rank, four postdoctoral fellows, 21 graduate and undergraduate students, and four full time staff members; Buck was the first in this group to arrive at Hampton. The Hampton University/Thomas Jefferson National Accelerator Facility (The Jefferson lab) partnership model, under which the NuHEP Center partially operated, was the first of its kind and has sparked 15+ other university partnerships with the Jefferson Lab. The NuHEP Center, created by Prof. Buck in 1990, was mainly funded through a cooperative agreement with the National Science Foundation/CREST but also enjoyed substantial external funding from the US Department of Energy, the Jefferson Lab, and NASA. Many former members of the NuHEP Center have created very successful careers in science.

In addition to helping to build a scientific program at the Jefferson Lab and creating the popular HUGS at CEBAF Summer School for graduate students and the Undergraduate Institute in Physics/REU summer program, Buck serves, and has served, on a variety of national and international physics and educational committees that include the Board of Directors of the Thomas Jefferson National Accelerator Facility's Users Group, the American Institute of Physics' Advisory Committee for Statistics and Education Division, Chair of the American Physical Society's Committee on Education, the National Visiting Committee for the Physics Education Group at UW Seattle, and co-chairing a National Research Council committee.

His efforts at Hampton University contributed greatly to the creation and implementation of the Hampton University Ph. D. Degree program in physics; the first PhD degree program on the Hampton campus.

With solid administrative experience, his physics research has been in covariant theoretical formulations of hadronic interactions that include Meson Theory and Quantum Chromodynamics. He has published his research results in prominent journals, has presented widely, and has been Visiting Professor at universities in the United States and abroad.

An active member of the community at large, Chancellor Buck has sat on the boards of the Washington Technology Center, the King County Cultural Development Authority (4Culture), the Bellevue Chamber of Commerce, United Way of King County (founding chair of the Children's Initiative/Success By 6), Chief Seattle Council of the Boy Scouts of America, the Alumni Association of the College of William and Mary (executive committee), and the Tyee Club (advising the athletic director of the University of Washington, Seattle). He was also the chair of the campaign that funded the City of Kenmore, Washington's history book. He now serves on the Board of Directors of the

Pacific Science Center (PSC) as well as is chair of the Science and Education Advisory Committee of the PSC housed in Seattle.

Warren Buck is also a member of the Omicron Delta Kappa Leadership Fraternity, a watercolorist and visual artist (<http://faculty.washington.edu/wbuck/art.html>), and yachtsman.

DETAIL

Education:

H.S. diploma (1963), Spingarn High School, Washington, D.C.

two years (1963-65) of study at Lincoln University, Jefferson City, MO.

B.S. in Mathematics (1968) Morgan State University, Baltimore, MD. Chief Advisors: Prof. Walter Talbot and Prof. Robert Dixon

M.S. in Physics (1970: Experimental and Theoretical Plasma) The College of William and Mary, Williamsburg, VA. Chief Advisor: Prof. F. Crownfield

Ph.D. in Physics (1976: Theoretical Relativistic Nuclear) The College of William and Mary, Williamsburg, VA; Dissertation Title: "Deuteron Wave Functions with Relativistic Interactions". Chief Advisor: Prof. Franz L. Gross

Professional Development:

The Harvard Seminar for New Presidents July 23-28, 1999

Work Experience:

July 15, 2009 – Dec 31, 2009) Acting Director of the Science and Technology Program

(June 2009 – present) Professor of Physics (tenured) in the Science and Technology Program (UWB)

(9/15/06 – present) Professor of Interdisciplinary Arts and Sciences (UW Bothell) and Adjunct Professor of Physics (UW Seattle)

(7/1/05 – 9/14/06) Retooling/Sabbatical Leave (art and cob house construction)

(7/1/05 – present) Chancellor Emeritus, University of Washington, Bothell

(2/05 – 6/30/05) Chancellor, University of Washington, Bothell

(7/99 – 2/05) Chancellor and Dean, University of Washington, Bothell

(7/99 – present) Professor (tenured) of Interdisciplinary Arts and Sciences (tenured), University of Washington, Bothell

(1/00 – present) Adjunct Professor of Physics, University of Washington, Seattle

(9/91-9/95, 9/96-6/99) Director of the Nuclear/High Energy Physics (NuHEP) Research Center of Excellence of Hampton University

(8/28/89 to 6/99) Professor of Physics (tenured) Hampton University, Hampton, VA

(1986 –1996) editor in chief. "Hampton University Graduate Study (HUGS) at CEBAF Proceedings"

(10/89 to 7/99) Theory Group Member CEBAF/Jefferson Lab, Newport News, VA

(1985 to 7/99) Hampton University's Liaison with The Continuous Electron Beam Accelerator Facility (CEBAF). Newport News, VA

(1992- 1999) Advisor to CEBAF/Jefferson Lab Director

(3/6/96-5/4/96) Visiting Professor of Physics, The Gutenberg University, Mainz, Germany

(2/5/96-2/17/96) Visiting Professor of Physics at Morehouse College, Atlanta Georgia

(9/1/95-8/31/96) Sabbatical Leave from Hampton

(9/1/95 - 3/1/96) Staff Scientist at CEBAF

(July '92) Visiting Professor Michigan State University

(1/92-9/93) Interim Chair of Dept. of Physics

(1/89 to '91) Hampton University Nuclear Physics Group Leader

(8/84 to 8/27/89) Associate Professor of Physics (tenured '88). Hampton University, Hampton, VA

(7/85 to 8/85) Physicist. NASA/Langley Research Center, Space Technology Branch, Hampton, VA

(1/84 to 8/84) Visiting Assistant Professor of Physics. The College of William and Mary, Williamsburg, VA

(9/80 to 12/83) Watercolor artist and Yachtsman. With former partner, Linda Horn, I logged over 8,000 wonderful miles with our tri-hull sailboat; over 4,000 miles have been with no auxiliary motor on board. Sold over 150 of my watercolor paintings; most of which were commissioned. Pursued and developed techniques for painting underwater at a depth of one atmosphere.

(9/79 to 9/80) Research Staff Position. University of Paris' Division de Physique Theorique, Institut de Physique Nucleaire, Orsay, France.

(6/76 to 9/79) Post Doctoral Position. Nuclear Physics Theory Group, The State University of New York @ Stony Brook, Stony Brook, NY

(1977 to 1980) Visiting Staff Member. Los Alamos National Laboratory, Los Alamos, NM

(1970 to 1971) Instructor of Mathematics. Bowie State College, Bowie, MD

(Summer 1968) student researcher in Prof. O. M. Phillips' group, Mechanical Engineering, Johns Hopkins University, Baltimore, MD

Selected Consultant Work

GEARS (2009-)

Washington Education Foundation (2005-6)

Morehouse College

The National Science Foundation

The Jefferson Lab/CEBAF

The State Council for Higher Education in Virginia

Virginia Union University (1993-1995)

Louisiana Board of Regents (1993)

St. Mary's College (Texas) (1993-4)

Professional Memberships:

The American Physical Society (APS) - Fellow and Life member

The National Society of Black Physicists

The New York Academy of Sciences (inactive)

The American Association for the Advancement of Science

Selected Awards:

[Black Past](#) Listing

Impact Award, The Hulton Willis Association of the Alumni Association of the College of William and Mary, Oct 2002

Giant in Science Award (Feb 2001 in Washington, D.C.), Quality Education for Minorities (QEM) Network

Omicron Delta Kappa National Leadership Society (inducted October 1998)

The first *Outstanding Service Award* from the User's Group of The Continuous Electron Beam Accelerator Facility (CEBAF) 1986

Honorary Superior Accomplishment Award from NASA/Langley Research Center for "significant contributions in radiation physics enabling practical shield designs for manned space missions, and for authorship of the Space Systems Division Best Paper for 1990-1991."

1992 Outstanding Publication within the Space Directorate of NASA/Langley Research Center

NSF Graduate Trainee at William and Mary

Educational Opportunity Grant to attend Morgan State University

Partial Athletic (track) Scholarship to attend Lincoln University in Missouri.

Eagle Scout (7-18-1961, Wash., DC, Troop 580, Boy Scouts of America) with bronze palm

Selected Committee Work:

CREST Consultant/Advisory Panel (GEARS-Global Evaluation and Applied Research Solutions Inc), April 2009 – present, Washington, DC

Radioisotope Power Systems Committee (RPS), National Research Council, September 18, 2008 – June 2009), Washington, DC

Committee of Visitors, NSF HRD, chair of CREST Review (Sept 26-28, 2007)

Committee to Review New Opportunities in Solar System Exploration (NOSSE) (co-chair), National Research Council, Aug 6, 2007 – April 2008, Washington, DC

Pacific Science Center Board, Seattle, Washington (Feb 2007 – present)

Strategic Advisory Board, Center on Materials & Devices for Information Technology Research, University of Washington-Seattle, NSF Science and Technology Center) (2005 – present)

External Advisory Committee, Center for Research and Education in Optical Sciences and Applications (CREOSA), Delaware State University, NSF- Crest (2007 – Feb 2009)

LIGO Education Network member, LIGO-Hanford, Washington (Oct 2006 – present)

National Visiting Committee, The Physics Education Group, University of Washington, Seattle (2000 – 2006)

Chair, Family Matters Vision Council, United Way of Snohomish County (Dec 2003 – June 2005)

Leadership Eastside (founding Board member) (2003-2005)

Committee to establish the Bothell Chamber of Commerce (2003)

Board of Directors (founding member), King County Cultural Development Authority (4Culture) (Oct 2002 -2006)

Board of Directors, Chief Seattle Council, Boy Scouts of America (Sept 2002 - 2007)

Advisory Committee member for the Western Washington University Physics Department (2001 - 2002)

Kenmore History Project Campaign chair, Kenmore Heritage Society

Board of Directors, The Washington Technology Center (2001- 2006)

Board of Advisors, Tyee Club of the University of Washington (Sept 2001 - 2006)

Co-facilitator for the Bothell Community Sustainability Committee (April 2000 - 2002)

Committee of Visitors, the NSF Education and Human Resources Directorate, Feb '01

Board of Directors, United Way of King County (2000 - 2003) and Chair of the Children's Initiative (July 2001- Feb 2003)

Board of Directors, Northshore Chamber of Commerce (ex-officio) (1999 – June 2001)

Board of Directors, Bellevue Chamber of Commerce (ex-officio) (1999 – June 2005)

APS Committee for the selection of the Bouchet Award (1998-99)

APS Committee for the selection of the Outstanding Research performed by a Faculty member at an Undergraduate Institution (1997-98)

Member of the Board of Directors: The College of William and Mary Society of the Alumni (secretary 2000 -2002), Graduate Council (Chair 1997), and The Hulon Willis Association (term ended with the Society's Board 2004)

The Virginia Task Force on Physics member (95/96)

CEBAF Users Group Board of Directors (1994-96)

Organizing Committee for the October 1994 APS Division of Nuclear Physics meeting (at CEBAF)

National Association of Research Centers of Excellence (NARCE) -
'94 Treasurer/'96-'98 V. Chair/98-99 Chair

Organizing Committee for the 1995 NARCE Annual Conference - Chair

APS Committee on Education (1990-93) 1993 Chairman

U. S. Department of Energy Office of Fusion Energy Educational Programs Advisory
Committee 1990- 1997

External Advisory Committee for The Center for Ultrafast Optical Science
University of Michigan 1993- 2000

Baryons 92 Conference (held at Yale University) - International Advisory Committee

Few Body 94 Conference (held at William and Mary)-Local Organizing Committee

NSF/NATO Postdoctoral Fellowship Visitors Committee (1993)

AIP Advisory Committee for the Education and Statistics Division (1993-1995)

CEBAF Laser Processing Consortium 1993-1995

Member of the committee to establish a Sailing Team at Hampton University (94/95)

Funded Projects:

REU Physics Department – University of Wash., Seattle NSF, 2008 -2011, \$111,000 for
2009.

REU Physics Department – University of Wash., Seattle NSF, 2008 -2011, \$111,000 for
2008.

UnIPhy-REU. NSF, 1997-1999: Principal Investigator, \$120,000

Nuclear/High Energy Physics Research Center of Excellence. NSF, 1996-2001; Principal
Investigator, \$5 Million.

Undergraduate Institute in Physics (UnIPhy). U. S. Department of Energy, 1995-97,
Principal Investigator through CEBAF \$86,000.

HUGS at CEBAF, US Department of Energy, 1994-95; PI. \$25,000

Undergraduate Institute in Physics (UnIPhy). US Department of Energy, 1993-94; PI,
\$80,000

HUGS at CEBAF. US Department of Energy, 1993; PI. \$25,000

HUGS at CEBAF. US Department of Energy, 1991 & 1992, PI. \$20,000 each year.

Nuclear/High Energy Physics Research Center of Excellence. NSF, 1991-1996; PI, \$5 Million.

Electron and Heavy Charge Particle Transport in Multilayered Configurations. NASA, 1990: Co-PI. \$46,000.

Nuclear Physics Group. NSF, 1990-93. PI, \$299,000

HUGS at CEBAF. US department of Energy, 1990; PI. \$20,000

Electron and Heavy Charge Particle Transport in Multilayered Configurations. NASA, 1990: PI. \$142,917.

Physics Grant Proposal Writing Workshop. NSF. March 17-18, 1989. PI, \$17,000

HUGS at CEBAF. US Department of Energy, 1988-89. PI, \$20,000.

A Theoretical Intermediate Energy (Nuclear/Particle) Physics Group. NSF, 1987-1990. PI, \$285,000

Cosmic Ray Induced Single Event Upset Phenomena in Semi-Conductor Devices. NASA. 1987-1990. Co-PI, \$600,000

HUGS at CEBAF. US Department of Energy, 1987-1988. PI, \$10,000

HUGS at CEBAF. Cities of Newport News and Hampton, Virginia. 1986. Coordinator and Principal Investigator. \$4,000.

Electron and Heavy Charged Particle Transport. NASA, 1986-1987. PI. \$57,221.

Development of Photon Transport Methods. NASA, 1986-1987. PI. \$7,900.

Electron Transport. NASA, 1985-1986. PI, \$47,193.

Electron Transport. NASA, 1984-1985. PI, \$22,573.

Art Work/Seminars/Colloquia:

One (1) work of art contribution to Clamor, Omega Art-Introcourse acrylic on canvas, UWB Literary and Arts Journal, p 43, Spring 2009

“Interacting Fields: an intersection of art and physics”, Individual Art Exhibit, CUSP Art Series, UW Bothell, Jan 27-March 6, 2009.

“Seeing left, Seeing Right”, Visiting Scholar Lecture, James Madison University, Harrisonburg, VA, Sept 11, 2008,
<http://faculty.washington.edu/wbuck/JMUSept2008.pdf> **Invited**

Two works of art, Words and Pictures Magazine, January 2007 Issue.
“An Intersection of Art and Physics”, College of William and Mary, Williamsburg, VA, Alumni Association, October 26, 2007,
<http://faculty.washington.edu/wbuck/WMArtPhysics.pdf> **Invited**

“The Intersection of Art and Physics”, University of Wisconsin, Madison, WI, Department of Physics Colloquium, Nov 8, 2006
<http://faculty.washington.edu/wbuck/WisconsinColloq.pdf> **Invited**

Buck-ART, LLC www.warrenbuck.com 2005

Two (2) works of art (watercolor painting on cover, oil painting on page 39), William and Mary Alumni Magazine, Winter 2003/2004. <http://www.wmalumni.com/?magazine>

Selected Publications:

“Radioisotope Power Systems-An imperative for maintaining U. S. leadership in space exploration”, Radioisotope Power Systems Committee, Space Studies Board, Division on Engineering and Physical Sciences, The National Academy Press, (June 2009)
http://books.nap.edu/openbook.php?record_id=12653

“Opening New Frontiers in Space: Choices for the Next New Frontiers Announcement of Opportunity” Committee on New Opportunities in Solar System Exploration: An Evaluation of the New Frontiers Announcement of Opportunity, co-chair with Reta Beebe, Space Studies Board, Division on Engineering and Physical Sciences, The National Academy Press, (April 2008) http://books.nap.edu/catalog.php?record_id=12175

“Opening the Solar System: NASA’s New Frontiers Competition”, Reta Beebe and Warren Buck, Op-ed, Space News, March 17, 2008.

“Essay on Graduate Student Mentoring”, Essay 5, p192, of book entitled “The Black Student’s Guide to Graduate and Professional School Success”, GM2311, edited by Vernon L. Farmer, Greenwood Publishing Group, Westport, CN, 2003

“Coming Together for Kids”, Jon Fine and Warren Buck, Guest Editorial for the Seattle Times Newspaper, December 31, 2001.

“Courage”, Warren W. Buck, Hampton University Executive Leadership Summit, November 3, 2001. To be published, at some point, separately as a chapter in a book edited by William R. Harvey, president of Hampton University.

“Electron Beam Characteristics of a Laser-Driven Plasma Wakefield Accelerator”, K. A. Assamagan, W. W. Buck, et al, **Nuclear Instruments & Methods in Physics Research (NIM) A 438 (1999) 265-276.**

“Non-perturbative 0^+ (σ) decay into two pions”, P. Agbakpe, W. W. Buck, A. Afanasev, March 1999 Jefferson Lab preprint (based on Agbakpe’s Hampton University Ph. D. dissertation)

“New Constraints on Dispersive Form Factor Parameterizations from Timelike Region”, W. W. Buck and Richard Lebed, preprint JLAB-THY-98-04, **Phys Rev D** September 1, 1998 issue.

Book review: “Group Theory in Physics: An Introduction” by J. F. Cornwell, *Physics Today*, September 1998, page 67.

“Kaon Electroweak Form Factors”, W. W. Buck and A. Afanasev, International Conference on Elastic and Diffractive Scattering: Recent Advances in Hadron Physics, Ewa Women’s University, Seoul, Korea, 10 - 14 June 1997, pp318-328, World Scientific Publishers.

“The Hampton Experiment: the growing of a nuclear physics program”. *APS Bulletin*, Volume 42, No. 2, 18-21 April 1997, page 953.

“Unified Description of Kaon Electroweak Form Factors”, A. Afanasev and W. W. Buck, **Phys. Rev D55(1 April 1997)p4380**

“Unified Description of Kaon Electroweak Form Factors”, A. Afanasev and W. W. Buck, CEBAF -TH-96-12 preprint

“Form Factors of Kaon Semileptonic Decays”. A. Afanasev and W. W. Buck, Proceedings of 14th International Conference on Particles and Nuclei (PANIC 96), p666-668, Williamsburg, Va. 22-28 May 1996, World Scientific, editors are C. E. Carlson and J. J. Domingo.

"Changing Face of Physics", W. W. Buck and J. DeNiro, Documentary Video, **in progress**

"Kaon Charge Form Factors", W. W. Buck, R. Williams, and H. Ito, **Phys. Lett. B 351 (1995) 24-28.**

"Kaon Charge Form Factors", W. W. Buck, R. Williams, and H. Ito, 1994 CEBAF Preprint.

"CEBAF Hall A Hypernuclear Program" P. Markowitz et al, Fall Meeting of the APS Division of Nuclear Physics Bulletin, October 1994, Williamsburg, VA

"New Experimental Initiatives in Kaon Electroproduction", S. Beedoe et al, APS Meeting Bulletin, April 1995.

"Separation of Structure Function in Kaon Electroproduction" P. Markowitz et al, Fall Meeting of the APS Division of Nuclear Physics, October 1994, Williamsburg, VA

"Elastic Charge Form Factors for Pseudoscalar Mesons", W. W. Buck and H. Ito, Proceedings of the Vth Blois Workshop 1993, p371, edited by Fried, Kang, and Tan, World Scientific Publishers

"Dirkfest: A Symposium in Honor of J. Dirk Walecka's Sixtieth Birthday", edited by W. W. Buck, K. M. Maung, B. D. Serot (Dec.1992), World Scientific Publishers

"Quark Model of π and ρ mesons and the $\rho\pi\gamma$ Exchange Current in the Charge Form Factor of the Deuteron", H.Ito, F. Gross, W. W. Buck, Bulletin of the American Physical Society, October 14-17, 1992

"Axial Anomaly and the Dynamical Breaking of Chiral Symmetry in the $\pi^0 \gamma^* \rightarrow \gamma$ Reaction", H. Ito, W. W. Buck, F. Gross, **Phys. Lett B 287 ('92) 23-28**, and published in the 2nd Workshop on Relativistic Aspects of Nuclear Physics, Brasil 1991 (World Scientific Publishers)

"Electromagnetic Properties of the Pion as a Composite Nambu-Goldstone Boson", H. Ito, W. W. Buck, F. Gross, to be published in **Phys. Rev. C45 (April 1992)**

"The Sixth Annual HUGS at CEBAF Summer School Proceedings (1991)", W. W. Buck, editor (1992)

"Current Conservation and Interaction Currents with Relativistic Separable Interactions", H. Ito, W.W.Buck, F. Gross, **Phys. Rev. C43 (1991)p2483**.

"The Fifth Annual HUGS at CEBAF Proceedings" W. W. Buck editor (1990)

"Perturbative Gluon Exchange in a Covariant Quark Model of the Pion", H. Ito, W. W. Buck, F. Gross, CEBAF preprint-PR-90-006

"The Fourth Annual HUGS at CEBAF Proceedings", HU/CEBAF publication, W. W. Buck editor in chief(1989)

"A Nuclear Fragmentation Energy Deposition Model", Duc Ngo, J. W. Wilson, T. N. Fogarty, W. W. Buck, **Transactions on Nuclear Science, Vol 38, no. 1, February 1991**.

"Covariant Quark Model of Pion Structure" , H. Ito, W.W. Buck, F. Gross, **Physics Letters B, V248,(Sept 1990)**

"Kaon-Nucleus Scattering Calculations", B. Hong, W. W. Buck, K. M. Maung, J. W. Wilson, and L. W. Townsend, p146, NASA/HBCU Space Science and Engineering Research Forum Proceedings, March 22-23, 1989, Y. D. Saunders, Y. B. Freeman, M. C. George Editors.

"Progress in Proton Transport Code Development: Microelectronic Application", Duc Ngo, W. W. Buck, T. N. Fogarty, and J. W. Wilson, p371, NASA/HBCU Space Science and Engineering Research Forum Proceedings, March 22-23, 1989, Y. D. Saunders, Y. B. Freeman, M. C. George Editors.

"Nuclear-Fragmentation Studies for Microelectronic Applications", D. M. Ngo, J. W. Wilson, W. W. Buck, T. N. Fogarty, NASA Technical Memorandum #4143(Nov. 1989)

"Kaon-Nucleus Scattering", B. Hong, K.M.Maung, J.W.Wilson, W.W.Buck, NASA Technical paper #2920 (July, 1989)

"Isospin Flip as a Relativistic Effect: NNbar Interactions", W.W. Buck, CEBAF preprint 89-023, HU preprint 89-1

"BRYNTRN: A Baryon Transport Model" J. W. Wilson, L. W. Townsend, J. E. Nealy, S. Y. Chun, B. S. Hong, W. W. Buck, S. L. Lamkin, B. D. Ganapol, F. Khan, and F. A. Cucionatta, NASA TP 2887 (March 1989) - **NASA/LaRC Space Systems Division Best Paper for 1990-1991**

"High Energy Nucleon Data Bases", J. W. Wilson, S. Y. Chun, W. W. Buck, L. W. Townsend, **Health Physics, Vol 55, pp817-819, 1988**

"The Third Annual HUGS at CEBAF Proceedings" CEBAF publication, W. W. Buck, editor in chief (1988)

"Relativistic Antinucleon-Nucleon Interaction: A New Level Ordering", W.W. Buck, **Workshop on Relativistic Nuclear Many-Body Physics Proceedings**, World Scientific Publishers, Editors B.C. Clark, R. Perry, J. Vary

"Nucleon-Nucleus Interaction Data Base: Total Nuclear and Absorption Cross Sections", J.W. Wilson, L.W. Townsend, W.W. Buck, S.Y. Chun, B.S. Hong, S.L. Lamkin, NASA TM 4053 (August 1988)

"BRYNTRN: A Baryon Transport Computer Code: Computational Procedures and Data Base" J.W. Wilson, L.W. Townsend, S.Y. Chun, W.W. Buck, F. Khan, F. Cucinotta, NASA TM 4037 (June 1988)

"2nd Annual HUGS at CEBAF Proceedings", CEBAF Publication (1987), W.W. Buck, Editor

"Electroproduction of Antiprotons", W.W. Buck, CEBAF RPAC (1987)

"Nuclear Forces in a Dirac Harmonic Oscillator Quark Model", W.W. Buck, F. Gross, W.-Y.P. Hwang, L.S. Kisslinger, F. Wang, CEBAF RPAC (1987) p527

"Hampton University Graduate Studies (HUGS) at CEBAF Proceedings", CEBAF Publication (1986), Editor, W.W. Buck

"Structure Functions for Electron-Nucleon Coincidence", Soon C. Park and W.W. Buck, CEBAF; RPAC (1986), p8-24

"Atomic Traffic Cops Love High-Speed Collisions" W.W. Buck, Daily Press Newspaper (Hampton Roads, Virginia) Commentary Section, p1, October 20, 1985

"The NN Interaction as a Composite System" W.W. Buck, CEBAF RPAC (1986) p6-4

"On the Biological Hazard of Galactic Antinuclei" J.W. Wilson, W.W. Buck, L.W. Townsend, **Health Physics, Vol. 50, No. 5 (May 1986), 666**

"Theoretical Antideuteron-Nucleus Cross Sections" W.W. Buck, J.W. Norbury, L.W. Townsend, J.W. Wilson, **Phys. Rev. C33, 234 (1986)**

"Possible Complementary Cosmic Ray Systems: Nuclei and Antinuclei", W.W. Buck, J.W. Wilson, J.W. Norbury, NASA Technical Paper 2741(1987)

Two Person Watercolour Show, Warren Buck and Linda Horn (wife), Fairfax, CA, 1983

"Final State Isobars in Pion Production and the G-Parity Transformation", W.W. Buck, Institut de Physique Nucleaire (Orsay) preprint #IPNO/TH-79-60

"Nucleons, Pions, Quarks, and Transitions" W.W. Buck, Institut de Physique Nucleaire (Orsay) preprint #IPNO/TH 79-58

"Possibly Isomeric $3q3q\bar{q}$ Mesons", W.W. Buck and D. Strottman, Los Alamos preprint #LA-UR-79-397

"Chiral Symmetry and $NN\bar{n}$ to $\pi\pi$ Helicity Amplitudes", W.W. Buck, Stony Brook preprint (1979)

"Peripheral NN Partial Waves and Deviations from OPEP", W.W. Buck and J.W. Durso, Stony preprint (1978)

"Family of Relativistic Deuteron Wave Functions" W.W. Buck and F. Gross, **Phys. Rev. D20 (1979)2361**

"The Interaction of Nucleons with Antinucleons: I. General Features of the NNbar Spectrum in Potential Models", W. W. Buck, C.B. Dover, J-M. Richard, **Ann. of Phys. 121 (1979)47**

"Is the Repulsive Core a Relativistic Effect?" W.W. Buck and F. Gross, **Phys. Lett. 63B, 286 (1976)**

Seminars and Conference Talks:

Mythbusters' Interviewer, Moore Theatre, Seattle, WA October 4, 2008. **Invited**

NASA's New Frontiers, Department of Physics Colloquium, James Madison University, Harrisonburg, VA, September 12, 2008. **Invited**

Keynote Address, LSLAMP, Grambling State University, Grambling, Louisiana, April 10, 2008, **Invited**

"Beyond Expectations", Grambling State University, Grambling, LA, Oct 12, 2006. **Invited**

Key Note Address, Opening Convocation, The College of William and Mary, Williamsburg, VA, September 5, 2006 **Invited**

King County Sustainability Conference, "Sustainable Living in Cob" with Cathey Rapson, Seattle, WA, March 10, 2006. **Invited**

Keynote Address, National Conference for Undergraduate Research, Washington and Lee University, Lexington, Virginia, April 22, 2005. **Invited**

Public Forum on Governance and Operations of Multi-campus State Universities, host, University of Washington, Bothell, November 6, 2003

Numerous presentations, as chancellor (1999 – 2005), at various venues that include but are not limited to the State Legislature testimonies, Woodinville Rotary Club meeting, the Northshore Rotary Club meeting, the Redmond Rotary Club meeting, the Mercer Island Rotary Club meeting, the Everett Rotary Club meeting, physics colloquium at UW Seattle, the Social Security Administration, the Tyee Athletic Council "Dinner with a Dawg", testimonies before the state legislature, and annual campus addresses.

"Hold on to Your Dreams", Organization of Black Airline Pilots 28th National Convention Youth Luncheon, Seattle, WA, August 15, 2003. **Invited**

“Three Campuses”, the Harris Publishing Company Client Advisory Council meeting, New Orleans, LA, Feb 6, 2003. **Invited**

“The Emergence of Branch Campuses”, Department of Physics Colloquium, University of Washington, Seattle, WA, April 29, 2002. **Invited**

“Current Trends in Higher Education: A Look at 21st Century Scientific Research and Education”, The Ronald E. McNair Symposium on Science Frontiers, Department of Physics, North Carolina Agricultural and Technical State University, January 28, 2002, Greensboro, NC. **Invited**

“The Three Campuses of the University of Washington and Efforts Towards Diversity”, American Physical Society, March 12-16, 2001, Seattle, WA, **Invited**.

Physics Seminar, Western Washington University, Feb 24, 2001, Bellingham, WA, **Invited**.

“Kaon Form Factors in a Quark Model”, International Workshop $e^+ e^-$ Collisions from ϕ to J/ψ , March 1 – 5, 1999, Novosibirsk, Russia, **Invited**.

“A Mathematician Turned Physicist”, Morehouse College, Atlanta, Georgia, February 25, 1999, **Invited**.

“Off Shell Quarks and Confinement Issues”, Institut f. Hochenergiephysik, Vienna, Austria, December 16, 1998, **Invited**

“Strange Fellows and their Environment”, Strangeness Workshop, INT, University of Washington, Seattle, WA, October 5, 1998, **Invited**

“The Building of a Physics Program at Hampton University”, W. W. Buck, Special Colloquium, University of Houston (Physics), Houston, TX, October 15, 1998 **Invited**

“The Building of a New Physics Program”, W.W. Buck, Workshop on the Development of Science and Technology in Africa, University of Natal, Durban, South Africa, July 27-31, 1998 **Invited**

“Out of the Vacuum”, Morehouse College Dansby/Center of Excellence Scholars Lecture Seminar, Atlanta Georgia, November 20, 1997, **Invited**

Presentation delivered at the Mellon Fellows Conference “The Ethics of Knowing”, June 27, 1997, Hampton University, **Invited**

Presentation delivered at the Blois Conference at the EWA Women’s University in Seoul Korea, June 12, 1997. **Invited**

“The Hampton Experiment: the growing of a nuclear physics program”. Joint meeting of the APS and AAPT, Washington DC, 18 April 1997, presentation C’3 2. **Invited**

“A Brief Review of Light Quark Physics”, National Society of Black Physicists’ XXIV Day of Scientific Lectures & 20th Annual Meeting, Lawrence Berkeley National Laboratory, Berkeley Cal, March 28, 1997. **Invited**

“K₁₃ Decays from a Different Perspective“. Ohio State University Nuclear Physics Seminar, Columbus, OH, March 10, 1997, **Invited**

“What Can We Learn From K₁₃ Decays?”, Old Dominion Univ. Physics Colloquium, Norfolk, VA March 7. 1997 **Invited**

“Pion and Kaon Form Factors; Electromagnetic and Weak”, INFN, University of Milano, Italy, April 24, 1996, **Invited**

“Pion and Kaon Form Factors; Electromagnetic and Weak”, SACLAY, France, April 9, 1996, **Invited**

“ Strange Loops”, University of Mainz, Germany, March 19, 1996, **Invited**

“A Piece of Pie Goes a Long Way”, Morehouse College, Atlanta Georgia, February 5 14, 1996, **Invited**

"A Slice of Pi Reveals Kaons", Triangle Nuclear Theory Colloquim, North Carolina State University, December 5, 1995 **Invited**

"A Slice of Pi Leads to Strangeness", Iowa State University Department of Physics Colloquium, Ames Iowa, October 30, 1995 **Invited**

"Nuclear Physics Today", The University of Tennessee at Knoxville and the State of Tennessee Governor's Summer School, June 29, 1995 **Invited**

"Nonperturbative QCD and Spectroscopy", The University of Tennessee at Knoxville Physics Department, June 29, 1995, **Invited**

"Science Education and Scientific Literacy, Developing Partnerships that Work, Science in the National Interest Regional Conference (White House Office of Science and Technology Policy)." The University of Texas at El Paso. May 4, 1995, **Invited as a Facilitator**

"Learning More about Electrical Charge", two seminars for the AMOCO-DANSBY PENN-G.E. Scholars program, Morehouse College, November 30, 1994, **Invited**

"Meson Form Factors", The University of Mainz, Germany, October 10, 1994, **Invited**

"Overview of CEBAF Developments", The University of Mainz, Germany, October 7, 1994 **Invited**

"CEBAF and Meson Form Factors", The University of Texas at El Paso, September 1994
Invited

CHROME dinner speaker, Newport News, VA, September 16, 1994, **Invited**

"Advances in Nuclear Physics", The University of Tennessee at Knoxville and the State of Tennessee Governor's Summer School, June 1994 **Invited**

"Pseudoscalar Meson Form Factors", The State University of New York at Stony Brook, March 1994 **Invited**

"Some Developments in Nuclear Physics", The National Conference of Black Physics Students, Atlanta, GA, February 1994 **Invited**

"Elastic Charge Form Factors for Pseudoscalar Mesons", Lincoln University, PA. September 1993 **Invited**

"Elastic Charge Form Factors of Pseudoscalar Mesons", The Vth Blois Workshop, Brown University, June 1993 **Invited**

"Electric Form Factors", Virginia Commonwealth University, April 1993 **Invited**

"How I found a career in Physics", The National Conference of Black Physics Students, Michigan State University, February 1993 **Invited**

"Charge distributions of hadrons", The Plasma Physics Laboratory, Princeton University, Princeton, NJ, January 1993 **Invited**

"The axial anomaly of the pion", The Ohio State University, Columbus, Ohio, November 1992 **Invited**

"Nuclear Physics: Hampton/CEBAF", The Lebedev Physical Institute Moscow, Russia, June 1992 **Invited**

"A Covariant Quark Model of the Pion", Workshop on Relativistic Aspects of Nuclear Physics held at the Centro Brasileiro de Pesquisas Fisicas (Rio de Janeiro, Brazil), Aug. 28-30, 1991 **Invited**

"A Covariant Quark Model of the Pion", National Accelerator Lab, Michigan State University East Lansing, MI, March, 1991 **Invited**

"A Covariant Quark Model of the Pion", Carnegie-Mellon University Pittsburgh, PA., March, 1991 **Invited**

"A Covariant Quark Model of the Pion", Argonne National Laboratory, Argonne, Ill, Oct 16, 1990 **Invited**

"Relativistic Dynamics: $NN\bar{n}$ and $qq\bar{q}$ ", University of Illinois, Champaign, Ill, March 26, 1990 **Invited**

"Physics: Science or Art", 1990 Stone Symposium on Sociology of Subjectivity, St. Petersburg Beach, FLA Jan. 25-28, 1990 **Invited**

"Nuclear Physics at Hampton University", Morehouse University, Atlanta, GA, Nov. 14, 1989 **Invited**

Session Chairman, Fall Meeting Southeast Section of the APS, Tuscaloosa, ALA, Nov. 9, 1989

"HUGS at CEBAF", talk presented at the AAPT Chesapeake Section Fall 1989 Meeting, VA Beach, VA, Oct 21, 1989

"Some Aspects of Antinucleon & Antinucleus Interactions", joint seminar @ Univ. of Pittsburgh and Carnegie-Melon Univ., Oct 5, 1989 **Invited**

"Some Aspects of Antimatter Annihilation", University of Grenoble, France (March 1989) **Invited**

"Relativistic Antinucleon-Nucleon Interaction: A New Level Ordering", Fall Meeting of the APS Division of Nuclear Physics, Santa Fe, NM (October 1988)

"Antimatter Predictions from an Optical Model", The Ohio State University, Columbus, OH (August 1988), **Invited**

"Relativistic Antinucleon-Nucleon Interaction: A New Level Ordering", Workshop on Relativistic Nuclear Many-Body Physics, Columbus, OH (June 1988), **Invited**

"Nuclear Physics at Hampton University", Virginia State University, Petersburg, VA (May 1988), **Invited**

"Relativistic Isospin Exposure", The University of Kentucky, Lexington, KY (May 1988), **Invited**

"In Search of Anti Iron", Florida International University, Miami, FLA (1987), **Invited**

"CEBAF: An Education for Nuclear Physics", National Society of Black Physicists Annual Meeting, New York, NY (April 23-25, 1987), **Invited**

"A Search for Galactic Anti-ion Cosmic Rays", 1st NASA-HBCU Forum, Atlanta, GA (April 20-22, 1986), **Invited**

"The Physics of Sailing", The College of William and Mary's Society of Physics Students Chapter Meeting, (March 24, 1986), **Invited**

"Antimatter-New Frontier in Science", Battelle Pacific Northwest Labs (March 14, 1986), **Invited**

"Optical Potential Calculations of Antideuteron Absorptive Cross Sections", Presented by W.W. Buck, with J.W. Norbury, L.W. Townsend, J.M. Wilson, Fall 1985 Meeting of the APS Division of Nuclear Physics, Pacific Grove, CA

"Hydrogen Atom Spectroscopy in Curved Space", Orsay, France (1980), **Invited**

" $\bar{N}N$, $3q3q$, and Mesonic Spectroscopy", The 1980 Intermediate Energy Conference, Regensburg, W. Germany, **Invited**

" $3q3q$ in a Bag", C.E.R.N., Geneva, Switzerland (1980), **Invited**

"Potential Theory and Quark Models", Institut di Fisica, Bologna, Italy (1980), **Invited**

"The MIT Bag Model and Hadron Spectroscopy", University of Genoa, Italy (1980), **Invited**

"The MIT Bag Model Applied to $3q3q$ and B Meson Predictions", Spring Conference at Oussois, France (1980), **Invited**

"Impossibilities in $\bar{N}N$ Potential Theory", Los Alamos Scientific Lab, Los Alamos, NM (1978), **Invited**

"Stony Brook Potential and $\bar{N}N$ States", Los Alamos Scientific Lab, Los Alamos, NM (1977), **Invited**

"Relativistic Deuteron Wave Functions", Washington Meeting of the American Physical Society (1976)

"Relativistic Deuteron Wave Functions and an Application to ND Scattering at 180 Degrees", Los Alamos Scientific Lab, Los Alamos, NM (1976), **Invited**

Television Appearances:

Bill Nye the Science Guy television show, "The Atom" segment first aired on PBS March 9, May 12, July 15, Sept 17, 1998

"Science in the Next Millenium: a lecture by Prof. Stephan Hawking", the White House, taped by C-SPAN March 6, 1998

Other Items

Referee for Physics Letters Journal

NAUI Certified Open Water SCUBA diver

Founding President of the College of William and Mary Black Student Organization

Member of the Royal Marsh Harbour Yacht Club, Abaco, Bahamas

Gold Medal (mile relay) in the 1963 Penn Relays

Blues guitarists and blues harp player early '70s through mid '80s (fingers now soft and uncoordinated)