CURRICULUM VITAE

Robert V. Steiner
Director, Online Teacher Education Programs
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Adjunct Associate Professor
Department of Physics
Queens College
City University of New York

Adjunct Assistant Professor
Program in Science Education
Department of Mathematics, Science and Technology
Teachers College, Columbia University

CITIZENSHIP

U.S.A. Born May 19, 1956 San Francisco, California.

EDUCATION

B.S., University of California, Berkeley, 1978, in Physics, with High Honors
M.S., Yale University, 1980, in Physics
Ph.D., Yale University, 1985, in Experimental High Energy Physics

REFERENCES

O. Roger Anderson
Chair, Department of Mathematics, Science and Technology
Teachers College, Columbia University
525 W. 120th Street
New York, NY 10027
(212)678-3385

Charles Flynn
President, College of Mount Saint Vincent
6301 Riverdale Avenue
Riverdale, New York 10471
(718) 405-3267

Martin Garrell
Professor, Department of Physics
Adelphi University
1 South Avenue
Garden City, NY 11530
(516)877-4875

Alexander Lisyansky
Chair, Department of Physics
Queens College, City University of New York
65-30 Kissena Boulevard
Flushing, NY 11367
(718)997-3371

Michael Shaevitz
Professor, Department of Physics
Columbia University
722 Pupin, Mail Code 5220
2960 Broadway
New York, NY 10027
(212)854-3305

HONORS AND AWARDS

2009-2012 NASA Global Climate Change Education (GCCE): Research Experiences, Teaching & Learning ("NASA-Museum Climate Change Science Education Collaborative: Online and Blended Teacher Professional Development Programs"), $489,999.

SERVICE

Member, Professional Development Committee, Association for Science Teacher Education (2009 - present)
Member, American Physical Society Forum on Education Nominating Committee (2008, 2009)
Member, Scientific Committee, XIII International Symposium of the International Organization for Science and Technology Education, 2008
Member, Advisory Board, IDEAS Institute, Hofstra University, 2007 -
Member, Mobile Computing Planning Group (middle school science), New York City Department of Education, 2005

Teachers College, Columbia University

2001- 2003	*President*, Columbia University Chapter of Sigma Xi
1999- 2003	*Member*, President's Task Force on Technology and the Future
1999- 2003	*Member*, Teachers College Technology Committee
1999- 2003	*Member*, Teachers College Web Advisory Committee
1997- 2003	*Member*, Barrier Access Removal Committee
1997- 2001	*Secretary*, Columbia University Chapter of Sigma Xi

Adelphi University:

1994-96	*Member*, Honors College Curriculum Committee
1994-95	*Member*, Adelphi Center for Humanities and Social Thought
1994-95	*Member*, Provost's Working Group on the Core Curriculum
1993-96	*Member*, Society of Mentors
1991-95	*Chair*, Senate Committee on Academic Information Technology
1991-95	*Member*, University Systems Integration Committee
1991-96	*Member*, Honors Program Committee
1989-91	*Member*, Academic Affairs Committee of the College of Arts and Sciences

PROFESSIONAL AFFILIATIONS
American Physical Society
American Association of Physics Teachers
American Association for the Advancement of Science
Sigma Xi

EMPLOYMENT

July 1, 2008 – present
Director, Online Teacher Education Programs
American Museum of Natural History
New York City

January 2009 – present
Adjunct Associate Professor, Department of Physics
Queens College, City University of New York

March 2003 – June 2008
Project Director, Seminars on Science
American Museum of Natural History
New York City

August 2006 – December 2008
Adjunct Assistant Professor, Department of Physics
Queens College, City University of New York

September 2002 – May 2003
Guest Faculty, Department of Physics
Sarah Lawrence College
Seminars on Modern Physics, Physics and Philosophy

January 1998 – present
Adjunct Assistant Professor, Program in Science Education
Teachers College, Columbia University
Computerization of science laboratories with real-time data collection and analysis

January, 1997 – February, 2003
Associate Director, Leadership Programs and Distance Learning
Office of the Dean (November 2001 - present);
The Center for Educational Outreach & Innovation (January 1997 – October 2001)
Teachers College, Columbia University
Development and marketing of distance learning and hybrid programs

September, 1996 - December, 1996
Adjunct Assistant Professor, Physics and Computer Science
Stern College for Women, Yeshiva University
Computerization of Science Laboratories

September, 1989 - August, 1996
Assistant Professor of Physics, Adelphi University
Principal Investigator, National Science Foundation (1992-1996)
FNAL NuTeV Collaboration
GEM Collaboration/BNL Sampling Calorimetry Collaboration
SLD Collaboration at SLAC/SLC

October, 1985 -- August, 1989 :
Postdoctoral Research Scientist, Columbia University
SLD Collaboration at SLAC/SLC
Nevis Laboratories

February, 1980 -- December, 1985:
Graduate Research Assistant for Horace Taft (deceased)/Jack Sandweiss
Fermilab Hybrid Spectrometer at FNAL
Fermi National Accelerator Laboratory and Yale University

February, 1980 -- June, 1980:
Graduate Research Assistant for Horace Taft
Yale High Resolution Streamer Chamber at FNAL
Worked on hardware developement
Fermi National Accelerator Laboratory

June, 1979 -- August, 1979:
Summer Research Assistant for Vernon Hughes (Yale Univ.)
Worked on Polarized Electron Source of SLAC Experiment 130
Stanford Linear Accelerator Center

September, 1978 -- January, 1980:
Teaching Fellow, Yale University
Led physics lab section for undergraduates
Sloane Physics Laboratory, Yale University

COURSES TAUGHT

Undergraduate courses (primarily for liberal arts students)
The Physical Universe
The Quantum Universe
Philosophical Concepts in Physics
Contemporary Topics in Scientific Research

Undergraduate courses (for physics and engineering majors)
Electromagnetism & Optics
Statics
Dynamics
Electronics
Independent Study
Modern Physics
Thermodynamics
Quantum Mechanics
Advanced Physics Laboratory
Java
C++

Graduate courses in physics:
Electromagnetism & Optics
Elementary Particles
Nuclear Physics
Classical Mechanics
Quantum Mechanics

SELECTED PRESENTATIONS

"Online Science Education Resources", American Association of Physics Teachers (Summer Meeting), Portland, OR, July 19, 2010

"Enhancing Science Learning with Technology Resources" [Panel Presentation], New York Academy of Sciences, May 17, 2010

"Beyond Bells and Whistles: Online Resources for Deepening STEM Literacy"
[Panel Presentation], National Science Teachers Association 2010 National Conference, Philadelphia, PA, March 19, 2010

"Online Astronomy Resources from the American Museum of Natural History"
American Physical Society (April Meeting), Washington, DC, February 15, 2010

"Online Teacher Professional Development", Macmillan/McGraw-Hill 2010 Science Symposium, University of Michigan, Dearborn, January 30, 2010

"e-Learning", Panel Presentation, Annual Meeting of the American Association of Museums, Philadelphia, PA, May 3, 2009

"Online Science Professional Development for International Baccalaureate Teachers", International Baccalaureate North America 27th Annual Regional Conference, San Francisco, CA, July 19, 2008.

"Online Professional Development: Program Design, Development, Implementation and Evaluation", Professional Development Institute of the National Science Education Leaders Association, Boston, MA, March 26, 2008.

"Online Resources from the American Museum of Natural History", Annual Conference of the Association for Science Teacher Education, St. Louis, MO, January 11, 2008.

"Online Professional Development at the American Museum of Natural History", Annual Conference of the European Council of International Schools, Madrid, Spain, November 24, 2007.

"Blended Approaches to Science in Higher Education: Highlights, Opportunities and Challenges", The 13th Annual Sloan-C International Conference on Asynchronous Learning Networks, Orlando, FL, November 9, 2007.

"Online Professional Development at the American Museum of Natural History", World Conference on Science and Technology Education, Perth, Australia, July 9, 2007.

"Online Professional Development and Resources: Navigating the Landscape", Professional Development Institute of the National Science Education Leaders Association, St. Louis, MO, March 28, 2007.

"The American Museum of Natural History and Enhancing Science Teacher Education: Seminars on Science", Annual Meeting of the American Association of Colleges of Teacher Education (Pre-conference workshop), New York, NY, February 23, 2007.

"Opening the Vaults: Fostering New Partnership Opportunities in Online Professional Development"(Panel Discussion), *Featured Session*, The 12th Annual Sloan-C International Conference on Asynchronous Learning Networks, Orlando, FL, November 9, 2006.

"Online Professional Development at the American Museum of Natural History", *Invited Talk*, Technology Forum of the National Association of Directors of Teacher Education and Certification, Minnesota, MN, June 8, 2006

"Online Physics Education Resources from the American Museum of Natural History", *Invited Talk*, Annual Meeting of the American Physical Society, Dallas, TX, April 22, 2006

"Two Models of Online Professional Development: Harvard WIDE World and the American Museum of Natural History's Seminars on Science", Annual Meeting of the National Staff Development Council, Philadelphia, PA, December 6, 2005

"Online Resources at the American Museum of Natural History", presented at: Pennsylvania Science Teachers Association Annual Meeting, Hershey, PA, December 1, 2005; National Science Teachers Association – Regional Conference, Chicago, November 11, 2005; and Program in Science Education, Teachers College, Columbia University, September 26, 2005

"Online Science Professional Development at the American Museum of Natural History", *Invited Talk*, Conference on Online Professional Development, Graduate School of Education, Harvard University, September 8, 2005

"Seminars on Science: Online Professional Development for Teachers", 25th Annual Microcomputers in Education Conference, University of Arizona, Tucson, AZ, March 14, 2005

"Precision Tests of Electroweak Interactions: Progress and Prospects", Department of Physics, California State Polytechnic University, Pomona, February 25, 2005

"Space, Time and Einstein: A Century of Relativity", Department of Physics, Sarah Lawrence College, Bronxville, NY, February 8, 2005

"Einstein Online: A Web-based Course", Annual Meeting of the American Physical Society, Denver, CO, May 3, 2004

"Online Physics Education: Progress and Prospects", Annual Meeting of the American Physical Society, Philadelphia, PA, April 6, 2003

"Seminars on Science: A Model for the Leveraging of Museum Resources", Association of Internet Researchers, Toronto, October 17, 2003

"Seminars on Science: An Overview", American Museum of Natural History, New York City, October 29, 2003

"Searching for New Particles and Forces", Weekly Colloquium, Division of Science, Sarah Lawrence College, Bronxville, NY, October 8, 2002

PUBLICATIONS

Online Teacher Education: A Formal-Informal Partnership Between Brooklyn College and the American Museum of Natural History
E. Miele, D. Shanley and R. Steiner, The New Educator 6(3/4), 2010

Bringing the Real World of Science to Children: A Partnership of the American Museum of Natural History and the City University of New York
A. Picciano and R. Steiner, Journal of Asynchronous Learning Networks, vol. 12:1

Mathematics for Physics Students,
R. Steiner and P. Schmidt, McGraw-Hill (2007)

Online Physics Education Resources at the American Museum of Natural History
American Physical Society Forum on Education, August, 2006,
(http://www.aps.org/units/fed/newsletters/summer2006/steiner.html)

Seminars on Science: Online Science Professional Development at the American Museum of Natural History
R. Steiner, R. Kinzler, M. Macdonald and M. Gordon, in Online Professional Development for Teachers: Emerging Models and Methods, 2006, Harvard University Press.

NOVA's The Elegant Universe: Summative Evaluation (featured as expert reviewer, not author)
M. St. John *et al*., November, 2004, Inverness Research Associates
(http://www.inverness-research.org)

Seminars on Science: A Model for the Leveraging of Museum Resources
R. Steiner *et al*., Association of Internet Researchers, October 17, 2003 (http://www.aoir.org)

The Convergence of Distance and Campus-Based Education (book review)
R. Steiner, Teachers College Record, April 2001

Online Courses: Pedagogical Implications
R. Steiner, Next Wave (online supplement to *Science)*, November 2000

An Improved Test of the Flavor Independence of Strong Interactions.
K. Abe *et al*., Phys.Rev.D59:012002, 1999

Direct Measurement of A(B) in Z0 Decays Using Charged Kaon Tagging
K. Abe *et al*., Phys.Rev.Lett.83:1902-1907,1999

Production of π^+, K^+, K^0, K^{*0}, Phi, P and Λ^0 in Hadronic Z0 Decays.
K. Abe *et al.*, Phys.Rev. D59:052001,1999

Direct Measurement of A(B) and A(C) at the Z0 Pole Using a Lepton Tag.
K. Abe *et a*l Phys.Rev.Lett.83:3384-3389,1999

QCD Tests Using B Anti-B G Events and a New Measurement of the B Hadron Energy Distribution.
David Muller *et al*., PNucl.Phys.Proc.Suppl.74:276-281,1999

First Study of the Structure of $e^+e^- \rightarrow$ B Anti-B G Events and Limits on the Anomalous Chromomagnetic Coupling of the B Quark.
K. Abe *et al*., Phys.Rev.D60:092002,1999

Physics Results From SLD Using the CRID
D. Muller et al., Nucl.Instrum.Meth.A433:314-327,1999

A Direct Measurement of Parity Violation in the Coupling of Z0 Bosons to B Quarks Using a Mass Tag and Momentum Weighted Track Charge.
K. Abe *et al.*, Phys.Rev.Lett.81:942-946,1998

Properties of the B Anti-B G Vertex.

K. Abe *et al.*, Nucl.Phys.Proc.Suppl.64:392-396,1998

An Improved Measurement Of The Left-Right Z^0 Cross-Section Asymmetry.
K. Abe *et al.*, Phys.Rev.Lett.78:2075-2079,1997.

First Measurement of the Left-Right Charge Asymmetry in Hadronic Z Boson Decays and a New Determination of $\sin^2(\theta)$.
K. Abe *et al.*, Phys.Rev.Lett.78:17-21,1997.

A Study Of The Orientation And Energy Partition Of Three Jet Events in Hadronic Z0 Decays.
K. Abe *et al.*, Phys.Rev.D55:2533-2545,1997.

Measurement of the Charged Multiplicities in b, c and Light Quark Events from Z^0 Decays.
K. Abe *et al.*, Phys.Lett.B386:475-485,1996.

A Measurement of $R = \sigma_L / \sigma_T$ in Deep Inelastic Neutrino -Nucleon Scattering at the Tevatron.
U.K. Yang *et al.*, J.Phys.G22:775-780,1996.

Factorial and Cumulant Moments in $e^+e^- \rightarrow$ Hadrons at the Z^0 Resonance.
K. Abe *et al.*, Phys.Lett.B371:149-156,1996.

Measurements Of R(B) with Impact Parameters and Displaced Vertices.
K. Abe *et al.*, Phys.Rev.D53:1023-1038,1996.

Measurement of the Average B Hadron Lifetime in Z^0 Decays Using Reconstructed Vertices.
K. Abe *et al.*, Phys.Rev.Lett.75:3624-3628,1995.

First Measurement of the T Odd Correlation between the Z^0 Spin and the Three Jet Plane Orientation In Polarized Z^0 Decays to Three Jets.
K. Abe *et al.*, Phys.Rev.Lett.75:4173-4177,1995.

A Limit on ν_μ to ν_τ Oscillations from a Precision Measurement of Neutrino-Nucleon Neutral Current Interactions.
K. McFarland *et al.*, Phys.Rev.Lett. 75:3993-3996, 1995.

Measurement of the Average B Hadron Lifetime in Z^0 Decays Using Reconstructed Vertices.
K. Abe *et al.*, Phys.Rev.Lett.75:3624-3628, 1995.

A Measurement of the Left-Right, Forward-Backward Asymmetry for Charm Quarks Using D^* and D^+ Mesons.
K. Abe *et al.*, Phys.Rev.Lett.75:3609-3613, 1995.

Measurement of the Tau Lifetime at SLD.
K. Abe *et al.*, Phys.Rev.D52:4828-4837, 1995.

Measurement of A_b From the Left-Right Forward-Backward Asymmetry of B Quark Production in Z^0 Decays Using a Momentum Weighted Track Charge Technique.
K. Abe *et al,* Phys.Rev.Lett.74:2890-2894, 1995.

An Accordion Liquid Argon Electromagnetic Calorimeter with Absorber in All Electrodes.
O. Benary *et al.* , Nucl.Instr..Meth.A350:131, 1994

Liquid Ionization Calorimetry with Time-Sampled Signals.
O. Benary *et al.* , Nucl.Instr..Meth.A349:367, 1994

Performance of an Accordion Electromagnetic Calorimeter with Liquid Krypton and Argon.
O. Benary *et al.* , Nucl.Instr..Meth.A344:363, 1994

Measurement of α_S from Energy-Energy Correlations at the Z^0 Resonance.
K. Abe *et al.*, Phys.Rev.D50:5580-5590,1994

Precise Measurement of the Left-Right Cross Section Asymmetry in Z Boson Production by e^+e^- Collisions.
K. Abe *et al.*, Phys.Rev. Lett.73:25-29, 1994.

Measurement of the Charged Multiplicity of $Z^0 \to b\bar{b}$ Events.
K. Abe *et al.*, Phys.Rev.Lett. 72:3145-3149, 1994.

Precision Timing with Liquid Ionization Calorimeters.
O. Benary *et al.*, Nucl.Inst.Meth.A332:78(1993).

The Lead-Liquid Argon Sampling Calorimeter of the SLD Detector.
D. Axen *et al.*, Nucl.Instr.Meth.A328:472-494, 1993.

A Measurement of α_S from Jet Rates at the Z^0 Resonance.
K. Abe, *et al.*, Phys. Rev. Lett. 71:2528, 1993.

First Measurement of the Left-Right Cross Section Asymmetry in Z Boson Production by e^+e^- Collisions.
K. Abe *et al.*, Phys.Rev. Lett.70:2515-2520, 1993.

Neutral Strange-Particle Production in 200 GeV/c p/p+/K+ Interactions on Au, Ag and Mg.
D.H. Brick *et al.*, Phys.Rev.D45:734-742, 1992.

μ^-e^+ Dilepton Production in Charged-Current Neutrino Interactions.
N.J. Baker *et al.*, Phys. Rev.D43:2765-2777,1991.

Rapidities of Produced Particles in 200-GeV/c p+ /p/K+ Interactions on Au, Ag and Mg
D.H. Brick *et al.*,Phys.Rev.D41:765-773.

ν_μ- ν_e Universality in Charged-Current Neutrino Interactions.
N.J. Baker *et al.* , Phys.Rev.D41:2653,1990.

Multiparticle Production by 200 GeV/c Hadrons on Gold, Silver and Magnesium Targets.
D. Brick *et al.* , Phys.Rev.D39:2484-2493, 1989.

Leading Particle Distributions in 200-GeV/c p + A Interactions.
K. Abe *et al.* , Phys.Lett. B200:266, 1988.

Charged Hadron Production in π^+p, K^+p and p p Interactions at 200 GeV/c.
Robert V. Steiner (Yale U.), UMI 86-13624-mc (microfiche), 1985. 153pp.

The Performance of CRISIS and its Calibration.
D. Goloskie *et al.* , Nucl.Instr.Meth.A238:61,1985.

Charge Excess In Relativistic Secondaries In Hadron Nucleus Interactions.
P. Haridas *et al.* , Proceedings, Multiparticle Dynamics:964,1983.

Planar Events Produced in Hadron-Proton Collisions at 147 GeV/c and Their Jet-Like Structures.
D.H. Brick *et al.* , Z.Phys.C24:19,1984.

Search For Longlived Charge +2 Hadrons.
D. Brick *et al.* , Phys.Rev.D30:1134,1984.

The Reactions p p $\rightarrow$ p p π^+ π^- ,K^+ p$\rightarrow$ $K^+p\pi^+\pi^-$, $\pi^+p \rightarrow \pi^+p\ \pi^+\pi^-$, and

$\pi^-p \rightarrow \pi^-p\pi^+\pi^-$.
D. Brick *et al.* , Z.Phys.C19:1,1983.

Planarity and Jet-Like Structures in Low p_T Hadron - Proton Interactions at 147 GeV/c.
M. Kalelkar *et al.* , Multiparticle Dynamics:619, 1983.

CRISIS Detector: Characteristics and Performance.
A.M. Shapiro *et al.* , Rev.Sci.Instrum.53:393,1982.

Measurements of the Multiplicities in the Collision of Hadrons with Heavy Nuclei at 200 GeV/c.
D.H. Brick *et al.* , Nucl.Phys.B201:189,1982.

Inclusive and Semiinclusive ρ^0 Production in π^+/ π^-/ K^+/ pp Interactions at 147 GeV/c.
M. Schouten *et al.* , Z.Phys.C9:93,1981.

The Effective Energy Dependence Of the Charged Particle's Multiplicity in p / π^+/K^+ Interactions on Protons at 147 GeV/c.
D. Brick *et al.* , Phys.Lett.103B:241,1981.

Topological, Total and Elastic Cross-Sections for K^+ p, π^+p and pp Interactions at 147 GeV/c.
D. Brick *et al.* , Phys.Rev.D25:2794,1982.

Approach to Scaling in Inclusive π^+ / π^- Ratios at 147 GeV/c.
D. Brick *et al.* , Z.Phys.C13:11,1982.

Hadron Production in π^+p, K^+p and pp Collisions at 147 GeV/c and Properties of Jet-Like Multiparticle Systems.
D. Brick *et al.* , Z.Phys.C15:1,1982.