July 21, 2004

CURRICULUM VITAE

Stephen Parke

PROFESSIONAL ADDRESS:

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Fermi National Accelerator Laboratory
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PUBLICATIONS, PREPRINTS and INVITED CONFERENCE SEMINARS:

See attachments

PHYSICS EMPLOYMENT:

Fermi National Accelerator Laboratory:
- Senior Scientist 1995-present
- Scientist 1988-1995
- Associate Scientist 1983-88.

Stanford Linear Accelerator Center:
- Post-Doctoral Fellowship 1980-83.

Harvard University:
- Research/Teaching Assistant 1975-80.

EDUCATION:

Ph.D., M.A. June 1980, Theoretical Particle Physics:
- Harvard University, Cambridge, Massachusetts
- Thesis Advisor: Professor Sidney Coleman.

B.Sc. (Honours) May 1973, First Class Honours:
- University of Auckland, Auckland, New Zealand
- Majors: Physics, Pure and Applied Mathematics.

PROFESSIONAL and ACADEMIC AWARDS:

Fermilab:
- Fellow of the American Physical Society
- Marquis Who's Who in the World

Harvard University:
- Fulbright, Frank Knox Memorial Fellowship, Polariod Company Fellowship

University of Auckland:
- Junior National Scholarship, N.Z. Sugar Company Scholarship

INVITED CONFERENCE SEMINARS

Stephen Parke

(1) Monopole '82 Conference,
Wingspread, WI, Oct 14-17, 1982:
"Energy Loss of Slowly Moving Magnetic Monopoles in Matter".

(2) Monopole '83 Conference,
Ann Arbor, MI, Oct 6-9, 1983:
"Excitation of Simple Atoms by Slow Magnetic Monopoles".

(3) International Symposium on Particle and Nuclear Physics,
Beijing, China, Sep 2-7, 1985:
"Gluon and Massless Gluino Scattering using N=2 Supersymmetry".

(4) XXIII International Conference on High Energy Physics,
Berkeley, CA, July 16-23, 1986:
"Resonant Neutrino Oscillations within the Solar Interior".

(5) 14^{th} SLAC Summer Institute on Particle Physics,
Stanford, CA, July 28- August 8, 1986:
"Resonant Neutrino Oscillations".

(6) Workshop on Quarks and Galaxies,
Berkeley, CA, July 28-August 15, 1986:
"Effects of Resonant Neutrino Oscillations on the Solar Neutrino Experiments".

(7) General Meeting of the American Physical Society,
Crystal City, VA, April 20-23, 1987:
"Neutrino Oscillations in the Sun".

(8) Conference on QCD and its Applications,
ITP, Santa Barbara, CA, January 18-22, 1988:
"Duality and Multi-Gluon Amplitudes".

(9) General Meeting of the American Physical Society,
Baltimore, MD, April 18-22, 1988:
"Duality in QCD".

(10) 7^{th} Topical Workshop on Proton-Antiproton Collider Physics,
Batavia, IL, Jun 20 - 24, 1988:
"Approximate Four Jet Cross Sections in QCD".

(11) New Directions in Neutrino Physics at Fermilab,
Fermilab, Batavia, IL, Sept 14-16,1988:
"Atmospheric, Solar and Supernova Neutrinos".

(12) Workshop on QED Structure Functions,
Ann Arbor, MI, May 22-25, 1989:
"The Structure of Gluon Radiation in QCD".

(13) IV Mexican School of Particle and Fields,
Oaxtepec, Morelos, Mexico, December 3-14, 1990:
"Hard Amplitudes in Gauge Theories".

(14) Joint Int. Symp. Lepton-Photon & Europhysics Conf. on High Energy Physics,
Geneva, Switzerland, July 25 - Aug 1, 1991:
"Long Baseline Searches for Neutrino Oscillations".

(15) 15^{th} Johns Hopkins Workshop,
Baltimore, MD, August 26 -28, 1991:
"Long-Baseline Neutrino Oscillations".

(16) Conference on Fluid Mechanics and Theoretical Physics
in honor of Professor Pei-Yuan Chou,
Beijing, China, Jun 1-4, 1992:
"Long Baseline Searches for Neutrino Oscillations".

(17) 28th Rencontres de Moriond; Perspectives in Neutrinos, Atomic Physics and Gravitation,
Villars sur Ollon, Switzerland, Jan 30 - Feb 6, 1993:
"Overview of Accelerator Long Baseline Neutrino Oscillation Experiments".

(18) Tenth Aspen Winter Workshop on Elementary Particle Physics,
Aspen, January 16-23,1994,
"Top Production: Sensitivity to New Physics".

(19) American Physical Society, Division of Particles and Fields, 1994 (DPF 94):
Albuquerque, NM, 2-6 Aug 1994.
"Summary of Top Quark Physics".

(20) Workshop on the Origin of Fermion Masses and Mixings:
Fermilab, Batavia, IL, 14-16 Oct 1994.
"Top Quark Production".

(21) CTEQ Workshop:
Fermilab, Batavia, IL, 6 Apr 1995.
"Correlations in Top Quark production and Decay".

(22) Xth International Pbar P Workshop:
Fermilab, Batavia, IL, 9-13 May 1995.
"Top Quark Production Dynamics".

(23) Workshop on the Physics of the Top Quark:
University of Iowa, Ames, 24-26 May 1995.
"Top Quark Production: Sensitivity to New Physics".

(24) XV International Conferemce of Physics in Collision:
Krakow, Poland, 8-10 June 1995.
"The Solar Neutrino Puzzle; Update".

(25) International Symposium on Heavy Flavor and Electroweak Theory:
Institute for Theoretical Physics, Beijing, China, 17-19 Aug 1995.
"Top Quark Production: Sensitivity to New Physics".

(26) Next Linear Collider Workshop:
Stanford Linear Accelerator Center, Stanford, CA; Feb 29 - Mar 2 1996.
"Spin Correlations in Top Quark Pair Production".

(27) International Conference on Advanced Science and Technology:
University of Illinois, Chicago, IL; 6 April 1996.
"Particle Physics".

(28) Solar Neutrino Workshop:
Fermi National Accelerator Laboratory, Batavia, IL; 25-26 April 1996.
"Neutrino Oscillations as the Solution".

(29) Frontiers in Contemporary Physics: Elementary Particles and Interactions:
Vanderbilt University, Nashville, TN, USA. May 11-16, 1997.
"Top Quark, W-Boson and Light Higgs".

(30) International Symposium on Large QCD Corrections and New Physics:
Hiroshima, Japan,. Oct 27-29, 1997.
"Top Quark Physics:Overview".

(31) Physics at the First Muon Collider and at the Front End of the Muon Collider:
Fermi National Accelerator Laboratory, Batavia, IL; 6-9 Nov 1997.
"Top Quark Physics at a Polarized Muon Collider".

(32) Fourth International Conference on Physics Potential and Development of $\mu^+\mu^-$ Colliders: San Francisco, CA, 10-12 Dec 1997.
"Top Quark Physics at a Polarized Muon Collider".

(33) Mini-Workshop on Physics at the first Muon Collider:
Fermi National Accelerator Laboratory, Batavia, IL; 22-23 April 1998.
"$t\ \bar{t}$ above Threshold at the First Muon Collider".

(34) Workshop on the Physics and Detectors for Future $e^+\ e^-$ Linear Colliders:
Keystone, CO; 26-29 Sept 1998.
"Top Quark Polarization at the NLC".

(35) Thinkshop on Top Physics:
Fermi National Accelerator Laboratory, Batavia, IL; 16-18 Oct 1998.
"$M_{t\bar{t}}$ Distribution and its Physics".

(36) New Strong Dynamics Workshop:
Fermi National Accelerator Laboratory, Batavia, IL; 30-31 Oct 1998.
"Topcolor Theory and $M_{t\bar{t}}$".

(37) Neutrino Physics Factory Workshop:
Fermi National Accelerator Laboratory, Batavia, IL; 17-18 Feb 2000.
"Neutrino Oscillation Scenarios".

(38) 2000 AAAS Annual Meeting:
Washington, DC: Feb 20, 2000
Session: Neutrino Experiments: A New Window on the Universe
"Neutrino Discoveries - Implications for Particle Physics and Cosmology".

(39) Particle Physics at the Millennium:
Aspen Center Physics, Jan 7-13, 2001.
Co-chairperson with Joe Kroll U of Penn.

(40) Frontiers in Contemporary Physics 2001
Vanderbilt U, March 5-10, 2001.
Co-convenor of Neutrino Physics Session with Jerry Busenitz.

(41) "XVIII th International Workshop on Weak Interactions and Neutrinos" (WIN '02)
Canterbury University, Jan 20-26, 2002.
Co-chairperson with Jenni Adams of U. of Canterbury.

(42) Cosmo '02.
Adler Planetarium, Chicago, Sept. 18-21, 2002.
"CP Violation in the Lepton Sector."

(43) NOON '03.
Kanazawa, Japan, Feb. 10-14, 2003.
"Long Baseline Neutrino Experiments: Parameter Degeneracies
and JHF/NuMI Complementarity"

(44) Neutrino Workshop 2003.
KITP, U of C at Santa Barbara, March 2-7, 2003.
"Neutrino Oscillations and CP and/or T Violation"

(45) Fermilab Academic Lectures
Fermilab, April 22 and 29, 2003.
"CP Violation in the Neutrino Sector"

(46) 2nd NuMI Off-Axis Workshop
Argonne, April 25, 2003
"Physics Issues for Energy and Baseline Choices"

(47) Trends in Neutrino Physics
Argonne, May 5, 2003
"JHF/NuMI Complementarity"

(48) ICTP Summer School on Particle Physics
Chairperson, A. Smirnov, June 16-20, 2003
Five Lectures on "Neutrino Physics"

(50) Erice Summer School
Erice, August 30, 2003
"Highlights from Fermilab"

(51) Weak Interactions and Neutrinos 2003,(WIN'03)
Lake Geneva, WI, October 7, 2003
"Neutrino Questions"

(52) Fermilab Long Range Neutrino Plan
Fermilab, November 7, 2003
"Issues in Neutrino Physics."

(52) Mexican DPF
Colima, Mexico, November 18, 2003
"CP Violations in the Lepton Sector."

(53) APS Neutrino Study
Argonne, December 13, 2003
"Status and Future of Neutrino Physics."

(54) APS Superbeams Study Group
Fermilab, January 30, 2004
"Complimentarity of Pff-Axis and Reactor Expts."

(55) Public Lecture
Skokie, IL, March 21, 2004
"Neutrinos: Ghosts of the Universe."

(56) Theory Seminar
Argonne National Laboratory, April 19, 2004
"Mixing Parameters from Long Baseline Expts."

(57) Heavy Quarks and Leptons
San Juan, Puerto Rico, June 1, 2004
"Neutrino Oscillation Phenomenolgy"