Curriculum Vitæ
Bonnie T. Fleming

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Academic Positions:
2009-present: Horace D. Taft Associate Professor of Physics, Yale University
2008-2009: Associate Professor, Yale University
2004-2008: Assistant Professor, Yale University
2002-2004: Lederman Fellow, Fermi National Accelerator Lab
1996-2002: Graduate Student, Columbia University, New York, NY
1998-2002: Research Assistant
1996-1998: Teaching Assistant
1993-1996: Physics Associate, AGS Department, Brookhaven National Lab

Education:
2002: Ph.D, Physics, Columbia University, New York, NY
1999: M.Phil, Physics, Columbia University, New York, NY
1998: M.A., Physics, Columbia University, New York, NY
1993: B.A., Physics, Barnard College, Columbia University, New York, NY

Awards:
Seton Elm Ivy Award, Yale University, 2012
Connecticut Academy of Science and Engineering, Fellow, 2012
Kavli Frontier Fellow, 2007, National Academy of Sciences
Junior Faculty Fellowship, Yale University, 2007
NSF CAREER Award, 2006
Luise Meyer-Schutzmeister Award, Association of Women in Science, 2001
Henry R. Boorse Prize in Physics, Barnard College, 1993
Departmental Honors, Barnard College, 1993

Collaboration/Experiment Participation:
Long Baseline Experiment (LBNE), Convener for LAr Working Group, 2008-present
MicroBooNE (E974), Co-Spokesperson, 2007-present
ArgoNeuT (T962), Spokesperson, 2006-2009
FINeSSE, co-Spokesperson, 2002-2005
BooNE (E898), member, 1997-2009
CTEQ, member, 1997-2001
CCFR/NuTeV (E815), member, 1997-present

Professional Committees:
2013 NSERC member and co-chair
2012 FRA Visiting Committee, member
2012 Short Baseline Task Force for Fermilab, member
2012 Physics Working Group member for Fermilab Steering Committee for LBNE
2009-present: Executive Board member for the LBNE collaboration Executive Board
2009-present: Institutional Representative for Yale for the LBNE collaboration Institutional Board
2010-present: Natural Sciences and Engineering Research Council (NSERC) of Canada, member
2010-present: High Energy Physics Advisory Panel (HEPAP), member
2009: NSF review committee, chair
2006-2007: DOE Dark Matter Science Assessment Group (DMSAG)
2006-2008: Science Advisory Council, Barnard College, Columbia University
2006: NSERC review committee
2006: NSF review committee
2002-2004: Fermilab Summer Internship in Science and Technology
(SIST) committee
2001: Young Physicists Forum Committee, Snowmass 2001
2000-present: Young Particle Physicists (YPP), co-founder
1999-2000: Graduate Student Association Representative, Fermilab
1999-2000: Fermilab Users' Executive Committee

University Service:
2012: Chair of Faculty Search Committee for theory position
2012: Member of Faculty Search Committee for Experimental Nuclear position
2012: Chair of Graduate Admissions Committee
2012: Member of Library Oversight Committee for University Library position
2010: Member of Graduate Admissions Committee
2009-2011: Member of University Librarian Search Committee
2009-2011: Member of Steering committee for Evaluation of Undergradaute Curriculum changes
2009: Member of Departmental COUPPE committee

Conference/Workshop/Study participation:

- 2012: Organizing committee for "What's Nu" Conference, Florence, Italy
- 2011: Organizing committee for the Short Baseline Workshop at Fermilab
- 2009-present: Co-chair for the CIPANP 2012 Conference and Chair for the CIPANP 2015 Conference
- 2009: Co-convener for Neutrino sessions, WIN2009
- 2008-2009: Organizing Committee for US-Indo Frontiers of Science Symposium, National Academy of the Sciences
- 2008: International Advisory Board for the CIPANP Conference
- 2007-2009: Co-convener for Neutrino Group, Fermilab Project X workshop.
- 2006: Hosted "Workshop on Neutrino Physics with LArTPCs", Yale University, July 2006.

- 2006: International Advisory Board for FNAL/BNL Long Baseline Neutrino Study.
- 2006: Working group leader for Liquid Argon group for FNAL/BNL Long Baseline Neutrino Study.
- 2005: Convener for neutrino session: The Future of Nuclear Physics at LANSCE
- 2004: Chair for working group for short baseline neutrino physics at future superbeams facilities: APS Neutrino Study, 2004
- 2003: Co-convener for the neutrino physics sessions: CIPANP 2003
- 2003: Convener for the neutrino scattering working group, NuFACT 2003
- 2001: Convener for non-oscillation physics group for E1: Snowmass 2001
- 2001: Co-chair of non-oscillation physics working group for the Fermilab proton driver study

Invited Plenary Presentations

- TAUP 2011, September 2011, Munich, Germany, plenary talk:*Short Baseline Oscillations*
- Beyond3Nu, May 2011, Gran Sasso National Lab, Italy:*Addressing the MiniBooNE Anomalies at Fermilab*
- GLA2010, March 2010, KEK, Japan: *From ArgoNeuT to MicroBooNE*
- Aspen Winter Conference, February 2011, Aspen, Colorado: *Nu Frontiers in Neutrino Physics*
- NNN09, Estes Park, CO, October 2009, plenary session: *Liquid Argon R&D in the U.S.*
- Workshop on Weak Interactions and Neutrinos (WIN), Perugia, Italy, September 2009, plenary session: *Neutrino Working Group Summary*
- APS Division of Particles and Fields Conference, Detroit, MI, July 2009, plenary session: *Neutrino Experiments*
- The Intersection of Particle and Nuclear Physics Conference, Torrey Pines, CA, May 2009, plenary session: *Future Neutrino Experiments*
- uDiG Workshop, plenary session, Brookhaven Lab, Upton, NY, October 2008: *Liquid Argon Summary*
- Gordon Conference, Newport, RI, July 2007: *MiniBooNE First Oscillation Results*
- Particle Physics and Cosmology PPC07, Texas A&M, Texas, May 2007: *MiniBooNE First Oscillation Results*
- PHENO '07, plenary session, University of Wisconsin, Madison, WI, May 2007: *MiniBooNE First Oscillation Results*
- Emerging Themes in Physics, University of Texas at Austin, Austin, TX, October 2006: *Nue or not Nue: Neutrino Oscillations and Beyond*
- Neutrino 2006, plenary session, Santa Fe, NM, June, 2006: *Progress on the MiniBooNE Neutrino Oscillation Search*
- Physics in Collision (PIC), plenary session, Prague, July 2005: *Neutrino Cross Sections and Scattering*
- The 12th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY), plenary session, Tskuba, Japan, June 2004: *The ν Landscape of Particle Physics*
- NuFACT 2003, plenary session, Columbia University, New York, NY, June 2003: *Summary of the Neutrino Scattering Physics Working Group Sessions*
- CIPANP 2003, plenary session, New York, NY, May 2003: *Summary of the Neutrino Physics Parallel Sessions*
- Meeting of the Division of Particles and Fields (DPF2002), plenary session, Williamsburg, VA. May 2002: *The nu World: Charting New Territory*

Physics Colloquium

- The University of Ohio, May 2012
- Iowa State University, Colloquium, March 2010: *Nu Frontiers in Neutrino Physics*
- Northwestern University Colloquium, January 2010: *Nu Frontiers in Neutrino Physics*
- Massachusetts Institute of Technology Colloquium, March 2009: *The LArTPC Program in the US: ArgoNeuT, MicroBooNE, and Beyond*
- Cincinnati University Colloquium, Cincinnati, OH, January 2009: *Addressing the Unexpected Results from MiniBooNE: The MicroBooNE Experiment*
- University of Minnesota Colloquium, Minneapolis, MN, October 2007: *Unexpected Results from MiniBooNE*
- Syracuse University Colloquium, Syracuse, NY, October 2007: *Unexpected Results from MiniBooNE*
- Stanford University Colloquium, Menlo Park, CA, June 2007: *MiniBooNE First Oscillation Results*
- McGill University, Colloquium, Montreal, Canada, March, 2006: *Nue or not Nue? Upcoming Results from MiniBooNE*
- University of Washington, Colloquium, Seattle, WA, February, 2006: *Nue or not Nue? Upcoming Results from MiniBooNE*
- University of Iowa, Physics Department Colloquium, November 2005: *Neutrino Surprises, Upcoming Results from MiniBooNE*
- Yale University, Physics Department Colloquium, New Haven, CT, April, 2005: *Chasing Neutrinos: Discovering the Unexpected.*
- Tufts University, Physics Department Colloquium, Boston, MA, February 2005: *Chasing Neutrinos: Where will Neutrinos Take Us Next?*
- New Mexico State University, Physics Department Colloquium, Las Cruces, NM, February 2004: *The ν Landscape of Particle Physics*
- University of New Mexico, Physics Department Colloquium, Albuquerque, NM, January 2004: *The ν Landscape of Particle Physics*
- University of Michigan, Physics Department Colloquium, Ann Arbor, MI, January 2004: *The ν Landscape of Particle Physics*
- Purdue University, Physics Department Colloquium, Purdue, IN. February 2001: *The Case of the Oscillating Neutrino*
- University of Mississippi, Physics Department Colloquium, Oxford, Mississippi. February 2001: *The Case of the Oscillating Neutrino*

Seminars

- University of Chicago, Seminar, Chicago, IL May 2012
- Harvard University Seminar, Cambridge, MA, May 2009: *The LArTPC Program in the US: ArgoNeuT, MicroBooNE, and Beyond*
- Lawrence Berkeley National Laboratory, Berkeley, CA, March 2009: *The US Liquid Argon Time Projection Chamber: Leading to DUSEL*
- Indiana University Seminar, Bloomington, IN, Feb 2009: *Desperate Remedies in Neutrino Physics*
- Cornell University Seminar, Ithaca, NY, October 2008: *The US LArTPC Program: ArgoNeuT, MicroBooNE, and Beyond*
- Enrico Fermi Institute Seminar, University of Chicago, Chicago, IL, October 2008: *MicroBooNE: A Liquid Argon TPC Experiment to Address the Unexpected Results from MiniBooNE*
- Brookhaven National Laboratory, Seminar, Upton, NY, February, 2008: *Addressing the Unexpected Results from MiniBooNE: The MicroBooNE Experiment* 2007: *MiniBooNE First Oscillation Results*
- High Energy Physics Seminar, University of Padova, Italy, June 2007: *MiniBooNE First Oscillation Results*
- Special Seminar, Gran Sasso Laboratory, Italy, June, 2007: *MiniBooNE First Oscillation Results*
- Yale High Energy Physics Special Seminar, Yale University, New Haven, CT, April 2007: *MiniBooNE First Oscillation Results*
- Argonne High Energy Physics Seminar, Chicago, IL, December, 2005: *Liquid Argon Detectors for Long Baseline Neutrino Physics*
- Massachusetts Institute of Technology, Seminar, Boston, MA, October 2005: *Neutrino Surprises, Upcoming Results from MiniBooNE*
- Lawrence Berkeley Lab, Heavy Ion Tea Seminar Series, Berkeley, CA, November 2004: *Studying Neutrinos With FINeSSE*
- University of Maryland, Particle Astrophysics Seminar, College Park, MD, February, 2004: *The ν Landscape of Particle Physics*
- Yale University, Nuclear Physics Seminar, New Haven, CT, February, 2004: *The ν Landscape of Particle Physics*
- Indiana University, IUCF Seminar, Bloomington, IN, January 2004: *The ν Landscape of Particle Physics*
- University of Cincinnati, High Energy Physics Seminar, Cincinnati, OH, November 2003: *FINeSSE: Fermilab Intense Neutrino Scattering Scintillator Experiment*
- University of Maryland, High Energy Physics Seminar, College Park, MD, November 2003: *On the Road to Oscillations: First Results from the MiniBooNE Experiment*
- University of Michigan, High Energy Physics Seminar, Ann Arbor, MI, October 2003: *On the Road to Oscillations: First Results from the MiniBooNE Experiment*
- University of Virginia, High Energy Physics Seminar, Charlottesville, VA, May 2003: *FINeSE: Fermilab Intense Neutrino Scattering Experiment*

- Princeton University, High Energy Physics Seminar, Princeton, NY, March 2003: *FINeSE: Fermilab Intense Neutrino Scattering Experiment*
- University of Wisconsin, High Energy Physics Seminar, Madison, WI, March 2003: *FINeSE: Fermilab Intense Neutrino Scattering Experiment*
- Indiana University, IUCF, Nuclear Physics Seminar, Bloomington, IN, February 2003: *There's More to Neutrinos than Oscillations: Low Energy Neutrino Physics at MiniBooNE and Beyond*
- University of Chicago, High Energy Physics Seminar, Chicago, IL, December 2002: *FINeSE: Fermilab Intense Neutrino Scattering Experiment*
- University of Maryland, Physics Department Seminar, College Park, MD, October 2001: *In Search of the Oscillating Neutrino*
- Ohio State University Physics Department Seminar Series, Columbus, OH. May 2000: *A First Measurement of Low x, Low Q^2 Structure Function F_2 in Neutrino Scattering.*
- Los Alamos National Laboratory, P-25 Seminar, Los Alamos, NM, July 1999: *Low x, Low Q^2 Structure Function Analysis of CCFR data for F_2*
- WIN Seminar, Princeton University, Princeton, NJ, 1998: *MiniBooNE*
- Barnard College, Physics Department Seminar, New York, NY. 1995: *Accelerator Physics at the Brookhaven AGS*

Experimental Proposals, Reports, and White Papers:

- "An Expression of Interest for a Neutrino Oscillation Experiment on the Booster Neutrino Beam", May 2012
- "Whitepaper on Sterile Neutrinos", author of "Requirements for Future Measurements" Section
- "LAr Case Study", LBNE collaboration: co-editor for this proposal for a large LArTPC detector for the LBNE experiment
- "Physics Working Group Report", LBNE collaboration: contributor to the report describing the physics potential of the LBNE experiment
- L. A. Bernstein *et al.*, "Report on the Depth Requirements for a Massive Detector at Homestake," arXiv:0907.4183 [hep-ex]. BNL-81896-2008-IR, LBNL-1348E, July (2009)
- H. Chen *et al.* [MicroBooNE Collaboration], "Proposal for a New Experiment Using the Booster and NuMI Neutrino Beamlines: MicroBooNE," FERMILAB-PROPOSAL-0974 (2007)
- V. Barger *et al.*, "Report of the US long baseline neutrino experiment study," arXiv:0705.4396 [hep-ph], FERMILAB-0801-AD-E, BNL-77973-2007-IR, FERMILAB-APC (2007)
- M. G. Albrow *et al.*, "Physics at a Fermilab proton driver,", FERMILAB-FN-0778-AD-E, (2005)
- D. Finley *et al.*, "A large liquid argon time projection chamber for long-baseline, off-axis neutrino oscillation physics with the NuMI beam," FERMILAB-FN-0776-e (2005)
- L. Bartoszek *et al.*, "FLARE: Fermilab liquid argon experiments," FERMILAB-PROPOSAL-0942, 2004, (2004)
- L. Bugel *et al.* [FINeSSE Collaboration] "A Proposal for a Near Detector Experiment on the Booster Neutrino Beamline: FINeSSE: Fermilab Intense Neutrino Scattering Scintillator Experiment", 2003, , FERMILAB-PROPOSAL-0937 (2004)
- C. Bhat *et al.* [MiniBooNE Collaboration], "An expression of interest: MiniBooNE, phase II," FERMILAB-PROPOSAL-0944;
- B. T. Fleming, "Inner structure and outer limits: Precision QCD and electroweak tests from neutrino experiments,", FERMILAB-THESIS-2001-02, UMI-30-37701 (2002)
- E. Church *et al.* [BooNe Collaboration], "A proposal for an experiment to measure muon-neutrino → electron-neutrino oscillations and muon-neutrino disappearance at the Fermilab Booster: BooNE,", FERMILAB-PROPOSAL-0898 (1997)
- E. Church *et al.* [BooNe Collaboration], "A letter of intent for an experiment to measure nu/mu –¿ nu/e oscillations and nu/mu disappearance at the Fermilab booster: BooNE,", LA-UR-97-2120 (1997)

Publications in Refereed Journals:

- C. Anderson *et al.* [ArgoNeuT Collaboration], "First Measurements of Inclusive Muon Neutrino Charged Current Differential Cross Sections on Argon," arXiv:1111.0103 [hep-ex].

- K. B. M. Mahn *et al.* [SciBooNE and MiniBooNE Collaborations], “Dual baseline search for muon neutrino disappearance at $0.5\text{eV}^2 < \Delta m^2 < 40\text{eV}^2$,” arXiv:1106.5685 [hep-ex].
- A. A. Aguilar-Arevalo *et al.*, “Measurement of the neutrino component of an anti-neutrino beam observed by a non-magnetized detector,” arXiv:1102.1964 [hep-ex].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “First Measurement of the Muon Neutrino Charged Current Quasielastic Double Differential Cross Section,” Phys. Rev. D **81**, 092005 (2010) [arXiv:1002.2680 [hep-ex]].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “Measurement of ν_μ and $\bar{\nu}_\mu$ induced neutral current single π^0 production cross sections on mineral oil at $E_\nu \sim O(1GeV)$,” Phys. Rev. D **81**, 013005 (2010) [arXiv:0911.2063 [hep-ex]].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “A Search for Core-Collapse Supernovae using the MiniBooNE Neutrino Detector,” Phys. Rev. D **81**, 032001 (2010) [arXiv:0910.3182 [astro-ph.HE]].
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “A Search for Electron Antineutrino Appearance at the $\Delta m^2 \sim 1$ eV^2 Scale,”, submitted to Phys. Rev. Lett. (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “Measurement of the ν_μ charged current π^+ to quasi-elastic cross section ratio on mineral oil in a 0.8 GeV neutrino beam,” Phys. Rev. Lett. **103**, 081801 (2009)
- A. Curioni *et al.*, “A Regenerable Filter for Liquid Argon Purification,” Nucl. Instrum. Meth. A **605**, 306 (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “A search for muon neutrino and antineutrino disappearance in MiniBooNE,” Phys. Rev. Lett. **103**, 061802 (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “Unexplained Excess of Electron-Like Events From a 1-GeV Neutrino Beam,” Phys. Rev. Lett. **102**, 101802 (2009)
- P. Adamson *et al.* [MiniBooNE and Minos Collaboration], “First Measurement of ν_μ and ν_e Events in an Off-Axis Horn-Focused Neutrino Beam,” Phys. Rev. Lett. **102**, 211801 (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “The Neutrino Flux prediction at MiniBooNE,” Phys. Rev. D **79**, 072002 (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “The MiniBooNE Detector,” Nucl. Instrum. Meth. A **599**, 28 (2009)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “Compatibility of high-Δm^2 ν_e and $\bar{\nu}_e$ neutrino oscillation searches,” Phys. Rev. D **78**, 012007 (2008)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “First Observation of Coherent π^0 Production in Neutrino Nucleus Interactions with $E_\nu < 2$ GeV,” Phys. Lett. B **664**, 41 (2008)
- A. A. Aguilar-Arevalo *et al.* [MiniBooNE Collaboration], “Measurement of muon neutrino quasi-elastic scattering on carbon,” Phys. Rev. Lett. **100**, 032301 (2008)

- D. Mason *et al.*, "Measurement of the Nucleon Strange-Antistrange Asymmetry at Next-to-Leading Order in QCD from NuTeV Dimuon Data," Phys. Rev. Lett. **99**, 192001 (2007).
- A. A. Aguilar-Arevalo *et al.* [The MiniBooNE Collaboration], "A Search for electron neutrino appearance at the $\Delta m^2 \sim 1\text{eV}^2$ scale," Phys. Rev. Lett. **98**, 231801 (2007)
- S. J. Brice *et al.*, "Photomultiplier tubes in the MiniBooNE experiment," Nucl. Instrum. Meth. A **562**, 97 (2006).
- M. Tzanov *et al.* [NuTeV Collaboration], "Precise measurement of neutrino and anti-neutrino differential cross sections," Phys. Rev. D **74**, 012008 (2006)
- G. P. Zeller *et al.* [NuTeV Collaboration], "On the effect of asymmetric strange seas and isospin violating parton distribution functions on $\sin^2\theta_W$ measured in the NuTeV experiment," Phys. Rev. D **65**, 111103 (2002) [Erratum-ibid. D **67**, 119902 (2003)]
- S. Avvakumov *et al.* [NuTeV Collaboration], "A search for nu/mu $\rightarrow$ nu/e and anti-nu/mu $\rightarrow$ anti-nu/e oscillations at NuTeV," Phys. Rev. Lett. **89**, 011804 (2002)
- B. T. Fleming, L. Bugel, E. Hawker, V. Sandberg, S. Koutsoliotas, S. McKenney and D. Smith, "Photomultiplier tube testing for the MiniBooNE experiment," IEEE Trans. Nucl. Sci. **49**, 984 (2002).
- G. P. Zeller *et al.* [NuTeV Collaboration], "A precise determination of electroweak parameters in neutrino nucleon scattering," Phys. Rev. Lett. **88**, 091802 (2002) [Erratum-ibid. **90**, 239902 (2003)]
- A. Alton *et al.* [NuTeV Collaboration], "Observation of neutral current charm production in ν_μFe scattering at the Fermilab Tevatron," Phys. Rev. D **64**, 012002 (2001).
- J. A. Formaggio *et al.* [NuTeV Collaboration], "Search for the lepton number violating process anti-nu/mu e- –¿ mu- anti-nu/e," Phys. Rev. Lett. **87**, 071803 (2001)
- U. K. Yang *et al.* [CCFR/NuTeV Collaboration], "Extraction of R = sigma(L)/sigma(T) from CCFR nu/mu Fe and anti-nu/mu Fe differential cross sections," Phys. Rev. Lett. **87**, 251802 (2001)
- M. Goncharov *et al.* [NuTeV Collaboration], "Precise measurement of dimuon production cross-sections in nu/mu Fe and anti-nu/mu Fe deep inelastic scattering at the Tevatron," Phys. Rev. D **64**, 112006 (2001)
- B. T. Fleming *et al.* [CCFR Collaboration and NuTeV Collaboration], "A first measurement of low x low Q**2 structure functions in neutrino scattering," Phys. Rev. Lett. **86**, 5430 (2001)
- T. Adams *et al.* [NuTeV Collaboration], "Observation of anomalous dimuon events in the NuTeV decay detector," Int. J. Mod. Phys. A **16S1B**, 761 (2001)
- U. K. Yang *et al.* [CCFR/NuTeV Collaboration], "Measurements of F_2 and $xF_3^{\nu} - xF_3^{\bar{\nu}}$ from CCFR ν_μ–Fe and $\bar{\nu}_\mu$–Fe data in a physics model independent way," Phys. Rev. Lett. **86**, 2742 (2001)
- A. Alton *et al.* [NuTeV Collaboration], "Observation of neutral current charm production in nu/mu Fe scattering at the Tevatron," Int. J. Mod. Phys. A **16S1B**, 764 (2001)

- A. Alton *et al.*, “Search for light to heavy quark flavor changing neutral currents in $\nu_\mu N$ and anti-muon-neutrino N scattering at the Tevatron,” Phys. Rev. D **63**, 012001 (2001)
- J. A. Formaggio *et al.* [NuTeV Collaboration], “Search for a 33.9-MeV/c**2 neutral particle in pion decay,” Phys. Rev. Lett. **84**, 4043 (2000)
- T. Adams *et al.* [NuTeV Collaboration], “Evidence for diffractive charm production in nu/mu Fe and anti-nu/mu Fe scattering at the Tevatron,” Phys. Rev. D **61**, 092001 (2000)
- D. A. Harris *et al.* [NuTeV Collaboration], “Precision calibration of the NuTeV calorimeter,” Nucl. Instrum. Meth. A **447**, 377 (2000)
- A. Vaitaitis *et al.* [NuTeV Collaboration and E815 Collaboration], “Search for neutral heavy leptons in a high-energy neutrino beam,” Phys. Rev. Lett. **83**, 4943 (1999)

Contributions Presented at Conferences and Workshops:

- B. T. Fleming, “From ArgoNeuT to MicroBooNE,” J. Phys. Conf. Ser. **308**, 012007 (2011).
- B. T. Fleming, “Neutrino Experiments”, to be published in the American Physical Society, DPF meeting conference proceedings, plenary session.
- B. T. Fleming, “Future neutrino experiments,” AIP Conf. Proc. **1182**, 9 (2009).
- A. Curioni, B. T. Fleming and M. P. Soderberg, “The Yale Lar TPC,” AIP Conf. Proc. **967**, 76 (2007)
- B. T. Fleming, “Neutrino Scattering In Liquid Argon Tpc Detectors,” Nucl. Phys. Proc. Suppl. **155**, 245 (2006).
- B. Fleming, “Neutrino Cross Sections And Scattering Physics,” AIP Conf. Proc. **815**, 1 (2006)
- S. J. Brice *et al.*, “The FINeSSE detector,” Nucl. Phys. Proc. Suppl. **139**, 317 (2005)
- B. T. Fleming, “The nu landscape of particle physics,” *In *Tsukuba 2004, SUSY 2004* 383-391, plenary session*
- B. T. Fleming, “Working Group 2: Neutrino Scattering Physics,” Proceedings for NuFACT, 2003, AIP Conf. Proc. **721**, 379 (2004).
- B. E. Berger and B. T. Fleming, “Neutrinos Parallel Session: A Summary,” AIP Conf. Proc. **698**, 314 (2004)
- T. Adams *et al.*, “E1 working group summary: Neutrino factories and muon colliders,” in *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ed. N. Graf, *In the Proceedings of APS / DPF / DPB Summer Study on the Future of Particle Physics (Snowmass 2001), Snowmass, Colorado, 30 Jun - 21 Jul 2001, pp E1001* (2001)
- B. T. Fleming *et al.* [CCFR Collaboration and NuTeV Collaboration], “Recent structure function results from CCFR,” Proceedings of 4th Rencontres du Vietnam: International Conference on Physics at Extreme Energies (2000)
- B. T. Fleming *et al.* [CCFR and NuTeV Collaborations] “Recent Structure Function Results from CCFR”, Proceedings of Deep Inelastic Scattering (2000)
- B. T. Tamminga *et al.* [CCFR Collaboration], “Low-Q**2 low-x structure function analysis of CCFR data for F2,” Nucl. Phys. A **663**, 344 (2000)

Selected Synergistic Activities

- Outreach Programs
  - Founder and Co-organizer: Girls Science Investigations: GSI, New Haven. A Saturday program for 6-8th grade girls funded through Fleming's NSF CAREER grant, 2006-present.
  - Faculty advisor for Undergraduate Conference for Women in Physics: Yale, 2008. Conference funded through DOE, NSF, APS, AAPT, and Yale, 2007-2009.
  - Yale Physics Olympiad: Planned and ran events for students and teachers, 2004-2005
  - Co-founder and organizer: Girls Science Salon. A Saturday program for 6th-8th grade girls at Fermilab, 2002-2004
  - Saturday Morning Physics Presentations for High School Students at Fermilab, 2002-2004: *Detectors*
- Outreach Presentations/Public lectures
  - Speaker for APS Webinar, 2011: *Maintaining a Work/Life Balance*
  - Instructor/Speaker for Annenburg Foundation Online Course Video on Neutrino Physics, In progress.
  - PBS WIRED Science Video: Careers in Science, Bonnie Fleming, 2009
  - 2nd Conference for Undergraduate Physics, Yale University, January 2009: *Desperate Remedies*
  - 2nd Conference for Undergraduate Women in Physics, University of Southern California, January 2007: *Nue or not Nue: Neutrino Oscillations and Beyond*
  - Chairman's Tea, Yale University, November 2005: *Chasing Neutrinos*
  - Canadian American Mexican (CAM) graduate student conference, plenary session, San Diego, CA, August 2005: *The Standard Model of Particle Physics and Beyond: Surprising Results in Neutrino Physics" Oscillations and Beyond*
  - Department of Energy, National High School Science Bowl, Washington D.C, April 2005: *Neutrinos: The Tiniest Bits of the Universe*
  - Expanding your Horizons Conference, keynote speaker, Notre Dame University, South Bend, IN, April 2003: *Exploring the Tiniest Things on Earth*
  - Fermilab's Brown Bag Lunch Seminar, Fermilab, Batavia, IL, March 2003: *A Day in the Life of a High Energy Physicist*
  - Quarknet Program, Fermilab, Batavia, IL, 2002: *Neutrino Oscillations*
  - Symposium on the Nature of Science, Fermilab, Batavia, IL, 2002: *Neutrinos: Big Surprises in Small Packages*
  - Quarknet Program, Fermilab, Batavia, IL, 2001: *In Search of the Oscillating Neutrino*

- Visits to local schools and societies around Fermilab, Batavia, IL (2001-2002)
    * National Science Honor Society, New Lenox High School: Presentation on Science Careers
    * Lions Club of West Chicago meeting, West Chicago, IL
    * Geneva High School Career Day Presentation, Geneva, IL
    * Queen of the Rosary Career Day presentation, IL
    * GEMS (Girls in Engineering Math and Science) club presentation, Schaumberg Middle School, Schaumberg, IL
- Tour of women's colleges in the Northeast to promote careers in physics at Columbia University and elsewhere, 2000