

MEMBERSHIPS AND HONORS

1982 University of Michigan Physics Department Award for Excellence in Teaching
 1987-1988 Member, American Astronomical Society
 1988-1991 Member, Canadian Association of Physicists
 1989 Co-recipient, American Astronomical Society Bruno Rossi Prize
 1991-2005 Member, American Association of Physics Teachers
 1992-1994 Member, Fermilab Users Executive Committee
 1992-1996 Leader, CDF Collaboration SVX II Detector Subgroup
 1994 Univ. of New Mexico Dept. of Phys. and Astron. Award for Excellence in Teaching
 1994 Chair, Local Organizing Committee, *Eighth Meeting of the APS DPF*, Albuquerque
 1995 NSF Career Advancement Award
 1996-2004 Co-chair, ATLAS Collaboration Pixel Sensor Group
 1997 Invited Session Chair and Abstracts Reviewer, *1997 IEEE Nuclear Science Symp.*
 1999 Chair, Jet Physics Session, *1999 Meeting of the American Physical Society*
 1999-2001 Invited Reviewer, *ATLAS Semiconductor Tracker Project*
 1999, 2001 Invited Instructor, *IEEE Nuclear Science Symp. Short Course on Pixel Detectors*
 2000 Listed, *Who's Who in America*
 2000 Invited Session Chair, LHC Experiments, *XV Int. Wkshp. on HEP and QFT*
 2000 Chair, QCD Session, *2000 Meeting of the American Physical Society*
 2001 NSF Major Research Instrumentation Award
 2001 Best Faculty Mentor Award, University of New Mexico ACE/PURSUE Program
 2001-2006 Panelist, NSF Graduate Research Fellowship Program
 2002-2003 Secretary-Treasurer, APS Topical Group on Hadronic Physics
 2002-2004 Invited Reviewer, BTeV Experiment Fermilab Director's Status Review Committee
 2002, 2005 Panelist, NSF REU Review Panel
 2002 Invited Session Chair, XXXVII Rencontres de Moriond
 2002 Invited Chair, QCD and Fragmentation Session, *April 2002 Meeting of the APS*
 2002-2005 Invited Reviewer, Joint DOE/NSF Linear Collider R&D Review Committee
 2003 Invited Reviewer of Abstracts, IEEE Nuclear Science Symposium
 2003 Member, Fermilab Long Range Planning Subcommittee on Detector R&D
 2003-2005 ATLAS Experiment Publication Committee
 2004 Reviewer, Rare Isotope Accelerator Project
 2005 Department of Energy Advanced Detector Research Award
 2005 Panelist, NSF EPP Review Panel
 2006 Panelist, NSF LHC Review Panel
 2006-2007 Fulbright Fellow to Sweden
 2006-2007 Marie Curie Incoming International Fellow
 2007-2009 Member, DOE High Energy Physics Advisory Panel
 1979-present Member, American Physical Society
 1992-present Member, CDF Collaboration Executive Board
 1996-present Member, ATLAS Collaboration Pixel Detector Steering Group
 1998-present Institutional Representative, ATLAS Collaboration Board
 1999-present Secretary, Universities Research Association Region 3
 1999-present Co-director, Los Alamos Summer School in Physics
 2005-present Member, UNM Feminist Research Institute Board of Directors
 2006-present Member, APS Committee on the International Freedom of Scientists

INVITED TALKS

- New Results From IMB*, SLAC Topical Conf. in Particle Physics, Stanford, 1985.
- Recent Results From the IMB Nucleon Decay Experiment*, The Eighth Workshop on Grand Unification, Syracuse, 1987.
- Recent Results in Heavy Hadron Spectroscopy*, XXIV Int. Conf. in High Energy Physics, Munich, 1988.
- The CDF Silicon Vertex Detector and Its Upgrades*, Second Workshop on Vertex Detectors, Lake Bohinj, Slovenia, 1993.
- Studies of Double-sided Silicon Microstrip Detectors*, Second Int. Symp. on Development and Application of Semiconductor Tracking Detectors, Hiroshima, 1995.
- The ATLAS Experiment*, Frontiers in Contemporary Physics Conf. Nashville, 1997.
- Pixel Sensors for ATLAS*, Joint ATLAS-CMS-BTeV Pixel Sensors Meeting, Fermilab, 1998.
- Inclusive Jets at the Tevatron*, XXIX Int. Symp. on Multiparticle Dynamics, Providence, 1999.
- Recent Results from CDF*, XV Int. Workshop on High Energy Physics and Quantum Field Theory, Tver, Russia, 2000.
- Jet Physics at the Tevatron*, XXXVII Rencontres de Moriond, Les Arcs, 2002.
- Operating and Maintaining the LHC Detectors*, Joint ATLAS-CMS Meeting with the NSF Directorate, NSF, Washington, 2003.
- Operating, Maintaining, and Upgrading the LHC Detectors*, Joint ATLAS-CMS Meeting with the DOE Directorate, DOE, Washington, 2003.
- Jet Physics at CDF*, Ninth Adriatic Meeting, Dubrovnik, 2003.
- A Comparison of Three-jet Events in Proton-Antiproton Collisions to Predictions from a Next-to-leading Order QCD Calculation*, Eleventh Int. QCD Conf., Montpellier, 2004.
- Opportunities and Challenges for Women in Science*, Feminist Research Institute Conference, Albuquerque, 2006.
- US Efforts to Improve Diversity in the Scientific Community*, Second Meeting of the Nordic Network for Women in Physics, Lund, 2006.

LECTURES, SEMINARS, COLLOQUIA, AND CONTRIBUTED TALKS

- Searching for Proton Decay*: Hope College (1984)
- Searching for Proton Decay with the IMB Detector*: The Scottish Universities Summer School in Physics (1984).
- Nucleon Decay Results from IMB*: Princeton University (1986).
- Nucleon Decay Experiments: Status and Prospects*: Snowmass Summer Study (1986).
- Searching for Nucleon Decay with Invariant Mass Techniques*: Meeting of the APS, Salt Lake City (1987).
- Recent Results from IMB*: Boston University (1986), University of Toronto (1987), DESY (1987), Fermi National Accelerator Laboratory (1987), Columbia University (1987), University of Chicago (1987), State University of New York, Stony Brook (1987).
- A Search for Multitrack Nucleon Decay*: University of Michigan (1987).
- Results in B and D Physics from ARGUS*: Meeting of the APS, Houston (1990).
- CP Violation and the Top Quark*: Queens University (1990). Haverford College (1991), Union College (1991).
- The ARGUS Micro-Vertex Drift Chamber*: Meeting of the APS, Vancouver (1991).

LECTURES, SEMINARS, COLLOQUIA, AND CONTRIBUTED TALKS, cont.

- Recent Results from ARGUS: One Answer and Many New Questions:* Los Alamos National Laboratory (1991), Superconducting Supercollider Laboratory (1991), University of Illinois (1991), University of Chicago (1991), Southern Methodist University (1991).
- Searching for the Source of CP Violation and a Hint of the Top Quark:* University of New Mexico (1991).
- Double-sided Silicon Microstrip Sensors for the SVX II Detector:* Meeting of the APS, Albuquerque (1994).
- The Cosmological Matter-Antimatter Asymmetry and Rare Decays of B Mesons:* University of New Mexico (1996).
- The Cosmological Matter-Antimatter Asymmetry, CP Violation, and B Mesons:* Los Alamos Summer School (1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006), University of New Mexico REU Summer School (1999), University of New Mexico Institute for Astrophysics (2002).
- Pixel Sensors:* presentation to the Department of Energy (“Lehman”) Review Committee on the U.S. ATLAS Detector Project, Brookhaven (1997).
- Pixel Detectors:* Johns Hopkins University (1996), University of Oxford (1998).
- Pixel Sensors for ATLAS:* Int. Pixel Detector Wkshp. (PIXEL98), Fermilab (1998).
- The ATLAS Experiment:* Meeting of the Four Corners Section of the APS, Albuquerque (1998).
- ATLAS Pixel Sensors:* presentation to the Large Hadron Collider Committee Referees, CERN (1998).
- Symmetry, Gauge Theory, and Asymptotic Freedom:* Los Alamos Summer School (1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006), University of New Mexico REU Summer School (1999).
- ATLAS Pixel Sensors, an Introduction:* presentation at the ATLAS Pixel Sensor Final Design Review, CERN (1999).
- Jet Physics at CDF:* Centennial Meeting of the APS, Atlanta (1999).
- Pixel Sensors:* IEEE Nuclear Science Symposium Short Course on Pixel Detectors (1999, 2001).
- ATLAS Pixel Sensors:* presentation at the U.S. ATLAS Pixel Review, Lawrence Berkeley National Laboratory (1999).
- Jets, Partons, and the Search for New Physics:* University of Michigan (2000), University of Oregon (2000), INFN and Department of Physics of Udine (2001), University of Puerto Rico, Mayagüez (2002), Oklahoma State University (2002).
- ATLAS Pixel Sensors:* presentation at the U.S. ATLAS Pixel Review, Lawrence Berkeley National Laboratory (2000).
- Capacitance of Silicon Pixels:* Int. Wkshp. on Semiconductor Pixel Detectors for Particles and X-rays (PIXEL2000), Genova (2000).
- Jet Physics at the Tevatron:* University of Oregon (2000), Oklahoma State University (2002).
- Jets and the Search for New Physics:* Illinois Institute of Technology (2004).
- A Comparison of Three-jet Events in Proton-Antiproton Collisions to Predictions from a Next-to-leading Order QCD Calculation:* University of Oklahoma (2005).
- QCD, Jets, Heavy Quarks, and the Strong Potential:* University of Oklahoma (2005).
- Heavy Quarks and the Strong Potential:* Los Alamos National Laboratory (2006).
- 3D Sensor Studies:* ATLAS Tracker Upgrade Workshop, Liverpool (2006).
- B_c Physics at CDF:* Lund University (2006).

REFEREED JOURNAL ARTICLES, 2004-2006

1. "The CDF Run IIb silicon detector: design, preproduction, and performance," T. Akimoto et al., *Nucl. Instr. and Meth. A* 556, 459 (2006).
2. "Measurement of the $t - \bar{t}$ production cross section in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using missing $E_T +$ jets events with secondary vertex b -tagging," A. Abulencia et al., *Phys. Rev. Lett.* 96, 202002 (2006).
3. "Search for high-mass resonances decaying to $e\mu$ in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV, A. Abulencia et al., *Phys. Rev. Lett.* 96, 211802 (2006).
4. "Search for $Z' \rightarrow e^+e^-$ using dielectron mass and angular distribution," A. Abulencia et al., *Phys. Rev. Lett.* 96, 211801 (2006).
5. "Observation of $B_s^0 \rightarrow \psi(2S)\phi$ and measurement of the ratio of branching fractions $B(B_s^0 \rightarrow \psi(2S)\phi)/B(B_s^0 \rightarrow J/\psi\phi)$," A. Abulencia et al., *Phys. Rev. Lett.* 96, 231801 (2006).
6. "Recent advancements in the development of radiation hard semiconductor detectors for S-LHC," E. Fretwurst et al., *Nucl. Instr. and Meth. A* 552, 7 (2005).
7. "Measurement of the dipion spectrum in $X(3872) \rightarrow J/\psi\pi^+\pi^-$ decays," A. Abulencia et al., *Phys. Rev. Lett.* 96, 102002 (2006).
8. "A search for scalar bottom quarks from gluino decays in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. Lett.* 96, 171802 (2006).
9. "Top quark mass measurement from dilepton events at CDF II," A. Abulencia et al., *Phys. Rev. Lett.* 96, 152002 (2006).
10. "Measurement of mass and width of the excited charmed meson states D_1^0 and D_2^{*0} at CDF," A. Abulencia et al., *Phys. Rev. D* 73, 051104 (2006).
11. "Search for anomalous semileptonic decay of heavy flavor hadrons produced in association with a W boson at CDF II," A. Abulencia et al., *Phys. Rev. D* 73, 051101 (2006).
12. "Measurement of the inclusive jet cross section using the k_T algorithm in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. Lett.* 96, 122001 (2006).
13. "Search for second generation scalar leptoquarks in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. D* 73, 051102 (2006).
14. "Search for $H \rightarrow b\bar{b}$ produced in association with W bosons in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. Lett.* 96, 081803 (2006).
15. "Measurement of the helicity of W bosons in top quark decays," A. Abulencia et al., *Phys. Rev. D* 73, 111103 (2006).
16. "Search for charged Higgs bosons from top quark decays in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV, A. Abulencia et al., *Phys. Rev. Lett.* 96, 042003 (2006).
17. "Precision top quark mass measurement in the lepton + jets topology in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. Lett.* 96, 022004 (2006).
18. "Top quark mass measurement using the template method in the lepton+ jets channel at CDF II," A. Abulencia et al., *Phys. Rev. D* 73, 032003 (2006).
19. "Direct search for Dirac monopoles in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV," A. Abulencia et al., *Phys. Rev. Lett.* 96, 201801 (2006).

20. “Development of radiation tolerant semiconductor detectors for the Super-LHC,” M. Moll et al., *Nucl. Instr. and Meth. A* 546, 99 (2005).
21. “Search for neutral MSSM Higgs bosons decaying to tau pairs in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” A. Abulencia et al., *Phys. Rev. Lett.* 96, 011802 (2006).
22. “Search for $B_s^0 \rightarrow \mu^+ \mu^-$ and $B_d^0 \rightarrow \mu^+ \mu^-$ decays in $p - \bar{p}$ collisions with CDF II,” A. Abulencia et al., *Phys. Rev. Lett.* 221805 (2005).
23. “Measurement of b hadron masses in exclusive J/ψ decays with the CDF detector,” A. Abulencia et al., *Phys. Rev. Lett.* 96, 202001 (2006).
24. “Measurement of the ratios of branching fractions $B(B_s^0 \rightarrow D_s^- \pi^+)/B(B^0 \rightarrow D^- \pi^+)$ and $B(B^+ \rightarrow \bar{D}^0 \pi^+)/B(B^0 \rightarrow D^- \pi^+)$,” A. Abulencia et al., *Phys. Rev. Lett.* 96, 191801 (2006).
25. “Search for new high mass particles decaying to lepton pairs in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” A. Abulencia et al., *Phys. Rev. Lett.* 95, 252001 (2005).
26. “Radiation hard semiconductor detectors for SuperLHC,” M. Bruzzi et al., *Nucl. Instr. and Meth. A* 541, 189 (2005).
27. “Search for $\Lambda_b^0 \rightarrow p\pi$ and $\Lambda_b^0 \rightarrow pK$ decays in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 72, 051104 (2005).
28. “Search for first generation scalar leptoquarks in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 72, 051107 (2005).
29. “Search for supersymmetric Higgs bosons in the di-tau decay mode in $p - \bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 72, 072004 (2005).
30. “Search for new physics using high mass tau pairs from 1.96 TeV $p - \bar{p}$ collisions,” D. Acosta et al., *Phys. Rev. Lett.* 95, 131801 (2005).
31. “Measurement of the $t - \bar{t}$ production cross section in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using lepton plus jets events with semileptonic B decays to muons,” D. Acosta et al., *Phys. Rev. D* 72, 032002 (2005).
32. “Measurement of $B(t \rightarrow Wb)/B(t \rightarrow Wq)$ at the Collider Detector at Fermilab,” D. Acosta et al., *Phys. Rev. Lett.* 95, 102002 (2005).
33. “Evidence for the exclusive decay $B_c^\pm \rightarrow J/\psi \pi^\pm$ and measurement of the mass of the B_c meson,” D. Acosta et al., *Phys. Rev. Lett.* 96, 082002 (2006).
34. “Measurement of the azimuthal angle distribution of leptons from W boson decays as a function of the W transverse momentum in $p - \bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 73, 052002 (2006).
35. “Search for Higgs bosons decaying into $b - \bar{b}$ and produced in association with a vector boson in $p - \bar{p}$ collisions at 1.8 TeV,” D. Acosta et al., *Phys. Rev. Lett.* 95, 051801 (2005).
36. “Search for long-lived doubly-charged Higgs bosons in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 95, 071801 (2005).
37. “First evidence for $B_s^0 \rightarrow \phi\phi$ decay and measurements of the branching ratio and $A(CP)$ for $B^+ \rightarrow \phi K^+$,” D. Acosta et al., *Phys. Rev. Lett.* 95, 031801 (2005).
38. “Measurement of the W^+W^- production cross section in $p - \bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using dilepton pairs,” D. Acosta et al., *Phys. Rev. Lett.* 94, 211801 (2005).

39. “Measurement of the forward-backward charge asymmetry from $W \rightarrow e\nu$ production in $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 051104 (2005).
40. “Search for ZZ and ZW production in $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 091105 (2005).
41. “Measurement of the J/ψ meson and b hadron production cross sections in $p-\bar{p}$ collisions at $\sqrt{s} = 1960$ GeV,” D. Acosta et al., *Phys. Rev. D* 71, 032001 (2005).
42. “Analysis of decay time dependence of angular distributions in $B_s^0 \rightarrow J/\psi\phi$ and $B_d^0 \rightarrow J/\psi K^{*0}$ decays and measurement of the lifetime difference between B_s mass eigenstates,” D. Acosta et al., *Phys. Rev. Lett.* 94, 101803 (2005).
43. “Measurement of the cross section for prompt diphoton production of $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 95, 022003 (2005).
44. “Search for anomalous kinematics in $t-\bar{t}$ dilepton events at CDF II,” D. Acosta et al., *Phys. Rev. Lett.* 95, 02201 (2005).
45. “Sensors for the CDF Run2b silicon detector,” K. Hara et al., *IEEE Trans. Nucl. Sci.* 51, 1546 (2004).
46. “Measurements of bottom anti-bottom azimuthal production correlations in proton-antiproton collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 092001 (2005).
47. “Measurement of the W boson polarization in top decay at CDF at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 031101 (2005).
48. “Measurement of the forward-backward charge asymmetry of electron-positron pairs in $\bar{p}-p$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 052002 (2005).
49. “Measurement of charged particle multiplicities in gluon and quark jets in proton-antiproton collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 94, 171802 (2005).
50. “Search for scalar leptoquark pairs decaying to $\nu\bar{\nu}q\bar{q}$ in $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 112001 (2005).
51. “Search for electroweak single top quark production in $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. D* 71, 012005 (2005).
52. “Search for anomalous production of diphoton events with missing transverse energy at CDF and limits on gauge-mediated supersymmetry-breaking models,” D. Acosta et al., *Phys. Rev. D* 70, 072002 (2004).
53. “Optimized search for single top quark production at the Fermilab Tevatron,” D. Acosta et al., *Phys. Rev. D* 69, 052003 (2004).
54. “Search for $B_s^0 \rightarrow \mu^+\mu^-$ and $B_d^0 \rightarrow \mu^+\mu^-$ decays in $p-\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 93, 032001 (2004).
55. “The CDF Run IIb silicon detector,” M. Aoki et al., *Nucl. Instr. and Meth. A* 518, 270 (2004).
56. “Observation of the narrow state $X(3872) \rightarrow J/\psi\pi^+\pi^-$ in $\bar{p}-p$ collisions at $\sqrt{s} = 1.96$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 93, 072001 (2004).
57. “Heavy flavor properties of jets produced in $p-\bar{p}$ interactions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 69, 072004 (2004).
58. “Measurement of the polar angle distribution of leptons from W boson decay as a function of the W transverse momentum in proton-antiproton collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. D* 70, 032004 (2004).

59. “Combination of CDF and D0 results on W boson mass and width,” V.M. Abazov et al., *Phys. Rev. D* 70, 092008 (2004).
60. “Inclusive double pomeron exchange at the Fermilab Tevatron $\bar{p}-p$ collider,” D. Acosta et al., *Phys. Rev. Lett.* 93, 141601 (2004).
61. “Measurement of the average time integrated mixing probability of b flavored hadrons produced at the Tevatron,” D. Acosta et al., *Phys. Rev. D* 69, 012002 (2004).
62. “Search for pair production of scalar top quarks in R parity violating decay modes in $p-\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV,” D. Acosta et al., *Phys. Rev. Lett.* 92, 051803 (2004).