

CURRICULUM VITAE – ANDREW G. BRANDT

University of Texas at Arlington
Department of Physics
P.O. Box 19059
Arlington, TX 76019

Phone: (817) 272-2706
Fax: (817) 272-2824
E-mail: BRANDTA@UTA.EDU

Education UNIVERSITY OF CALIFORNIA, LOS ANGELES Los Angeles, CA
M. S., Physics 1988, GPA 3.77; Ph. D., Physics 1992
Thesis Title: “**Jet Measurements at the CERN Collider and the Pomeron Structure.**”

COLLEGE OF WILLIAM AND MARY Williamsburg, VA
Bachelor’s Degree, 1985, Physics and Economics; High Honors in Physics, GPA 3.95-fourth in class.

Professional Experience

ASSOCIATE PROFESSOR, UNIVERSITY OF TEXAS AT ARLINGTON; Arlington, TX; September 1999–present (promoted from Assistant Professor September 2004).

WILSON FELLOW, DZERO COLLABORATION, FERMI NATIONAL ACCELERATOR LABORATORY; Batavia, IL; January 1996–September 1999.

POST-DOCTORAL RESEARCH ASSOCIATE, DZERO COLLABORATION, FNAL; Batavia, IL; April 1992–December 1995.

GRADUATE RESEARCH ASSISTANT, UA8 COLLABORATION, UCLA; Geneva, Switzerland; April 1987–March 1992.

TEACHING ASSISTANT, UCLA; Los Angeles, CA; January 1986–March 1987.

Honors Phi Beta Kappa, College of William and Mary, December 5, 1984.

Department of Energy Young Independent Scientist Award (presented November 3, 1997 at DOE Forrestal Building).

Presidential Early Career Award for Scientists and Engineers (presented November 3, 1997 at Old Executive Office Building of White House).

Department of Energy Outstanding Junior Investigator Award, August 2001.

UTA Research Excellence Award Mar. 2005.

UTA Research Excellence Award Mar. 2006.

Funded Grants and Contracts

1. Fermilab, "Addendum of MOU between University of Texas, Arlington and Fermilab for Services of Lionel Peyrichoux," (Principal Investigator)
\$17,500, June 1, 2000–August 31, 2001.
2. UTA, Research Enhancement Program, "Construction of Scintillating Fiber Detectors for a High-Energy Physics Experiment," (Principal Investigator)
\$9,830, May 5, 2000–August 31, 2001.
3. DOE, Outstanding Junior Investigator Award, "A Forward Proton Detector for the DØ Experiment," 2001–2004 (Principal Investigator) [Included in base funding starting 2005]
 - Received **\$110,000** (\$88,000 at UTA, \$22,000 at Fermilab) in **2001**
 - Received **\$106,000** (\$100,000 at UTA, \$6,000 at Fermilab) in **2002**
 - Received **\$81,000** (\$75,000 at UTA, \$6,000 at Fermilab) in **2004**
4. DOE Supplemental Proposal, "Phototubes for a Forward Proton Detector for the DØ Experiment," (Principal Investigator)
\$25,000, August 2001–November 2001.
5. DOE Supplemental Proposal, "A Graduate Student for the DØ Experiment," (Principal Investigator)
\$25,000, November 2001–November 2002.
6. Fermilab, "Phototubes for the Forward Proton Detector," (PI)
\$42,000, (\$36,000 at UTA, \$6,000 at Fermilab), November 2001–November 2002.
7. Texas ARP, "New Physics with a New Proton Detector," (PI)
\$96,000, January 2002–December 2003.
8. DOE Advanced Detector Research, "Digital Hadron Calorimetry for a Linear Collider," July 2002–2004, (co-Investigator)
 - Received **\$50,000** in **2002**
 - Received **\$50,000** in **2003**
 - Received **\$50,000** in **2004**
9. DOE LCRD, "Digital Hadron Calorimetry for a Linear Collider," July 2003–present (co-Investigator)
 - Received **\$40,000** in **2003**
 - Received **\$70,000** in **2004**
 - Received **\$50,000** in **2005**
 - Received **\$61,000** in **2006**
10. NSF MRI, "A Consortium for the Acquisition of Equipment to Complete a Proton Detector for the Experimental Particle Physics Dzero Detector," (UTA PI)
\$125,000 (at UTA \$61,000 in 2003, \$29,000 in 2004), August 2003–August 2005.
11. DOE Base funding 2000-present (co-Investigator)

- Received **\$430,000** in **2000**
 - Received **\$360,000** in **2001**
 - Received **\$380,000** in **2002**
 - Received **\$400,000** in **2003**
 - Received **\$425,000** in **2004**
 - Received **\$585,000** in **2005**
 - Received **\$570,000** in **2006**
12. UTA LSAMP Supplemental Award, “Study of Cerenkov Light Propagation in Extremely Fast Counters,” Sep.–Dec. 2005, **\$4200** (PI).
 13. Southwest Tier 2 Center, NSF Aug. 2006–present **\$850,000** .
 14. Texas ARP, “A Proton Detector to Discover New Physics at the Energy Frontier,” (PI) **\$100,000**, June 2006–June 2008.

Experimental Collaborations

- UA8 Collaboration 1987–2002
- Dzero Collaboration (<http://www-d0.fnal.gov>) 1992–present
- ATLAS Collaboration (<http://atlas.web.cern.ch/Atlas>) 1999–present
- FP420 Collaboration (<http://www.fp420.com/>) 2005–present

Selected Research Accomplishments

- Spokesman of Fermilab Test Beam Experiment T958 on Fast timing(2006–)
- Executive Board member of FP420 R&D project (2005–)
- Instigator and leader of DØ Forward Proton Detector group (1996–)
- Instigator and leader of DØ Rapidity Gap analysis group (1992–2001)
- DØ QCD physics convenor (1998–2000)
- Chair of Run II trigger panel (1999)
- Co-chairman of international workshops on hard diffraction (1998, 2002)
- DØ Run I trigger coordinator (1994–1995)
- Developed and maintained data handling software used in all DØ QCD analyses 1992–1995
- Developed Level 2 rapidity separation trigger algorithm for the DØ Experiment
- Co-designed and led testing of DØ cosmic ray scintillator cap (1992–1993)
- Lead graduate student on UA8 experiment, which discovered hard diffraction; worked with forward proton tracking, Monte Carlo and data production and analysis (1987–1992)

Selected Publications in Refereed Journals

1. "Evidence for Transverse Jets in High-Mass Diffraction," R. Bonino *et al.* (UA8 Collaboration), Phys. Lett. B **211**, 239 (1988).
2. "Evidence for a Super-hard Pomeron Structure," A. Brandt *et al.* (UA8 Collaboration), Phys. Lett. B **297**, 417 (1992).
3. "The Small Angle Spectrometer of Experiment UA8 at the SPS-collider," A. Brandt *et al.* (UA8 Collaboration), Nucl. Instrum. and Meth. in Phys. Res. A **327**, 412 (1993).
4. "Rapidity Gaps between Jets in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **72**, 2332 (1994).
5. "Improvement to the DØ Luminosity Monitor Constant," J. Bantly, A. Brandt *et al.*, FERMILAB-TM-1930 (1995).
6. "A Study of the Strong Coupling Constant using W+Jets processes" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 3226 (1995).
7. "Transverse Energy Distributions within Jets in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Lett. B **357**, 500 (1995).
8. "Jet Production via Strongly-Interacting Color-Singlet Exchange in $p\bar{p}$ Collisions," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **76**, 734 (1996).
9. "The Azimuthal Decorrelation of Jets Widely Separated in Rapidity" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **77**, 595 (1996).
10. "J/Psi Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Lett. B **370**, 239 (1996).
11. "Scintillation Counters for the DØ Muon Upgrade," B.S.Acharya *et al.*, hep-ex/9709018, Nucl. Instrum. and Meth. in Phys. Res. A **401**, 45 (1997).
12. "Color Coherent Radiation in Multijet Events from $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.* (DØ Collaboration), Phys. Lett. B **414**, 419 (1997), Fermilab-Pub-97/201-E, hep-ex/9706012.
13. "Measurement of Dijet Angular Distributions and Search for Quark Compositeness," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **80**, 666 (1998), Fermilab-Pub-97/237-E, hep-ex/9707016.
14. "Cross Section Measurements of Hard Diffraction at the SPS-Collider," A. Brandt *et al.* (UA8 Collaboration), hep-ex/9709015, Phys. Lett. B **421**, 395 (1998).
15. "Measurements of Single Diffraction at $\sqrt{s} = 630$ GeV; Evidence for a Non-Linear $\alpha(t)$ of the Pomeron," A. Brandt *et al.* (UA8 Collaboration), hep-ex/9710004, Nucl. Phys. B **514**, 3 (1998).
16. "Probing Hard Color-Singlet Exchange in $p\bar{p}$ Collisions at $\sqrt{s} = 630$ GeV and 1800 GeV," B. Abbott *et al.* (DØ Collaboration), hep-ex/9809016, Phys. Lett. B **440**, 189 (1998).

17. "Determination of the Absolute Jet Energy Scale in the DØ Calorimeters.," B. Abbott *et al.*, Nucl. Instr. and Meth. A **424**, 352 (1999), Fermilab-Pub-97/330-E, hep-ex/9805009.
18. "The Inclusive Jet Cross Section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 2451 (1999), Fermilab-Pub-98/207-E, hep-ex/9807018.
19. "The Dijet Mass Spectrum and a Search for Quark Compositeness in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 2457 (1999), Fermilab-Pub-98/220-E, hep-ex/9807014.
20. "Evidence of color coherence effects in W +jets events from $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Lett. B **464**, 145 (1999); Fermilab-Pub-99/224-E; hep-ex/9908017.
21. "The isolated photon cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **84**, 2786 (2000); Fermilab-Pub-99/354-E; hep-ex/9912017.
22. "Probing BFKL Dynamics in Dijet Cross Section at Large Rapidity Intervals in $p\bar{p}$ Collisions at $\sqrt{s} = 1800$ and 630 GeV," Phys. Rev. Lett. **84**, 5722 (2000); Fermilab-Pub-99/363-E; hep-ex/9912032.
23. "Hard Single Diffraction in $p\bar{p}$ Collisions at $\sqrt{s} = 630$ and 1800 GeV," B. Abbott *et al.*, Phys. Lett. B **531**, 52 (2002); FERMILAB-Pub-99/373-E; hep-ex/9912061.
24. "Limits on Quark Compositeness from High Energy Jets in $p\bar{p}$ Collisions at 630 and 1800 GeV," Phys. Rev. D Rapid Communication **62**, 031101 (2000); Fermilab-Pub-99/357-E; hep-ex/9912023.
25. "The ratio of jet cross sections at $\sqrt{s}=630$ and 1800 GeV," B. Abbott *et al.*, Phys. Rev. Lett. **86**, 2523 (2001); FERMILAB-Pub-00/213-E, hep-ex/0008072.
26. "Ratios of Multijet Cross Sections in $p\bar{p}$ Collisions at $\sqrt{s}=1800$ GeV," B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1955 (2001); FERMILAB-Pub-00/218-E, hep-ex/0009012.
27. "Inclusive jet production in $p\bar{p}$ collisions," B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1707 (2001); FERMILAB-Pub-00/271-E, hep-ex/0011036.
28. "High- p_T Jets in $p\bar{p}$ Collisions at $\sqrt{s} = 630$ and 1800 GeV," B. Abbott *et al.*, Phys. Rev. D **64**, 032003 (2001); FERMILAB-Pub-00/216-E, hep-ex/0012046.
29. "The ratio of isolated photon cross sections in $p\bar{p}$ collisions at $\sqrt{s} = 630$ and 1800 GeV," V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 251805 (2001); FERMILAB-Pub-01/239-E, hep-ex/0106026.
30. "Subjet multiplicity of gluon and quark jets reconstructed using the k_T algorithm in $p\bar{p}$ collisions," V. M. Abazov *et al.*, Phys. Rev. D **65**, 052008 (2002); FERMILAB-Pub-01/248-E; hep-ex/010854.
31. "The inclusive jet cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV using the k_T algorithm," V. M. Abazov *et al.*, Phys. Lett. B **525**, 211 (2002); FERMILAB-Pub-01/290; hep-ex/019041.

32. “Multiple jet production at low transverse energies in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV,” V. M. Abazov *et al.*, submitted to Phys. Rev. D; FERMILAB-Pub-02/153-E, hep-ex/0207046.
33. “A Study of Inclusive Double-Pomeron-Exchange in $p\bar{p} \rightarrow p\bar{p}X$ collisions at $\sqrt{s} = 630$ GeV,” A. Brandt *et al.*, UA8 Collaboration, hep-ex/0205037 European Physics Journal C: <http://link.springer.de/link/service/journals/10052/first/papers/s10052-002-1031-x.pdf>
34. “Observation of diffractively produced W and Z bosons in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **574**, 169 (2003); hep-ex/0308032, FERMILAB-PUB-03-233-E.
35. “Measurement of Dijet Azimuthal Decorrelations at Central Rapidities in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **94**, 221801 (2005); hep-ex/0409040; FERMILAB-Pub-04/217-E.
pub283
36. “The Upgraded DØ Detector”, V. M. Abazov *et al.*, accepted by Nucl. Instr. and Methods, physics/0507191, Fermilab-Pub-05/341-E.
37. “Measurement of the isolated photon cross section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **639**, 151 (2006); hep-ex/0511054, FERMI-Pub-05/523-E.

Other Publications in Refereed Journals

1. "The DØ Detector," S. Abachi *et al.* (DØ Collaboration), Nucl. Instrum. and Meth. in Phys. Res. A **338**, 185 (1994).
2. "First Generation Leptoquark Search in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **72**, 965 (1994).
3. "Search for the Top Quark in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **72**, 2138 (1994).
4. "Search for High Mass Top Quark Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **74**, 2422 (1995).
5. "Observation of the Top Quark," S. Abachi *et al.*, (DØ Collaboration), Phys. Rev. Lett. **74**, 2632 (1995).
6. "Inclusive μ and b -Quark production Cross sections in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **74**, 3548 (1995).
7. "Search for Squarks and Gluinos in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 618 (1995).
8. "Search for W Boson Pair Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 1023 (1995).
9. "Limits on the anomalous ZZ γ and Z $\gamma\gamma$ Couplings in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 1028 (1995).
10. "Measurement of the WW γ Gauge Boson Couplings in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 1034 (1995).
11. "W and Z Boson Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 1456 (1995).
12. "Top Quark Search with the DZero 1992-1993 Data Sample" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. D **52**, 4877 (1995).
13. "Second Generation Leptoquark Search in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **75**, 3618 (1995).
14. "Search for Heavy W Bosons in 1.8 TeV $p\bar{p}$ Collisions," S. Abachi *et al.* (DØ Collaboration), Phys. Lett. B **358**, 405 (1995).
15. "Studies of Topological Distributions of Inclusive Three- and Four-Jet Events in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV with the DØ Detector," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. D **52**, 6000 (1996).
16. "Search for Light Top Squarks in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **76**, 2222 (1996).
17. "Search for Wino1 Zino2 via Trilepton Final States in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **76**, 2228 (1996).

18. "Search for Right-Handed W Bosons and Heavy W' in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **76**, 3271 (1996).
19. "Search for Anomalous WW and WZ Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **77**, 3303 (1996).
20. "Measurement of the W Boson Mass" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **77**, 3309 (1996).
21. "Search for Additional Neutral Gauge Bosons" S. Abachi *et al.* (DØ Collaboration), Phys. Lett. B **385**, 471 (1996).
22. "The Isolated Photon Cross Section in the Central and Forward Rapidity Region in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV" S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **77**, 5011 (1996).
23. "Limits on Anomalous $WW\gamma$ Couplings from $p\bar{p} \rightarrow W\gamma + X$ Events at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **78**, 3634 (1997).
24. "Search for a Fourth Generation $-1/3$ Quark via Flavor Changing Neutral Current Decay," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **78**, 3818 (1997).
25. "Search for Diphoton Events with Large Missing Transverse Energy in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **78**, 2070 (1997), Fermilab-Pub-96/446-E.
26. "Search for Top Squark Pair Production in the Dielectron Channel," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. D **57**, 589 (1998), Fermilab-Pub-96/449-E.
27. "Study of the $ZZ\gamma$ and $Z\gamma\gamma$ Couplings in $Z(\rightarrow \nu\nu)\gamma$ Production," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **78**, 3640 (1997), Fermilab-Pub-97/047-E, hep-ex/9702011.
28. "Direct Measurement of the Top Quark Mass," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **79**, 1197 (1997), Fermilab-Pub-97/059-E, hep-ex/9703008.
29. "Studies of Gauge Boson Pair Production and Trilinear Couplings," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. D **56**, 6742 (1997), Fermilab-Pub-97/088-E, hep-ex/9704004.
30. "Measurement of the Top Quark Pair Production Cross Section in $p\bar{p}$ Collisions," S. Abachi *et al.* (DØ Collaboration), Phys. Rev. Lett. **79**, 1203 (1997), Fermilab-Pub-97/109-E, hep-ex/9704015.
31. "Limits on WWZ and $WW\gamma$ couplings from $p\bar{p} \rightarrow e\nu jjX$ events at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **79**, 1441 (1997), Fermilab-Pub-97/136-E, hep-ex/9705010.
32. "Search for the Trilepton Signature from the Associated Gaugino Pair Production," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **80**, 1591 (1998), Fermilab-Pub-97/153-E, hep-ex/9705015.
33. "Measurement of the Top Quark Mass Using Dilepton Events," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **80**, 2063 (1998), Fermilab-Pub-97/172-E, hep-ex/9706014.

34. "Search for Scalar Leptoquark Pairs Decaying to Electrons and Jets in $p\bar{p}$ Collisions," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **79**, 4321 (1997), Fermilab-Pub-97/252-E, hep-ex/9707033.
35. "Experimental Search for Chargino and Neutralino Production in Supersymmetry Models with a Light Gravitino," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **80**, 442 (1998), Fermilab-Pub-97/273-E, hep-ex/9708005.
36. "Determination of the Mass of the W boson Using the DØ detector at the Tevatron," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. D **58**, 12002 (1998) Fermilab-Pub-97/328-E, hep-ex/9710007.
37. " $Z\gamma$ Production in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV and Limits on Anomalous $ZZ\gamma$ and $Z\gamma\gamma$ Couplings," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. D **57**, 3817 (1998), Fermilab-Pub-97/363-E, hep-ex/9710031.
38. "Search for First Generation Scalar Leptoquark Pairs in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. Lett. **80**, 2053 (1998) Fermilab-Pub-97/344-E, hep-ex/9710032.
39. "A Measurement of the W Boson Mass," B. Abbott *et al.* (DØ Collaboration), Phys. Rev. D **58**, 52001 (1998), Fermilab-Pub-97/422-E, hep-ex/9712029.
40. "Measurements of Inclusive Lambda-bar Production with Large x_f at the SPS-Collider," A. Brandt *et al.* (UA8 Collaboration), hep-ex/9712017, Nucl. Phys. B **519**, 3 (1998).
41. "Direct Measurement of the Top Quark Mass.," B. Abbott *et al.*, Phys. Rev. D **58**, 052001 (1998), Fermilab-Pub-98/031-E, hep-ex/9801025.
42. "Search for the Decay $b \rightarrow X_s \mu^+ \mu^-$," B. Abbott *et al.*, Phys. Lett. B **423**, 419, 1998, Fermilab-Pub-98/033-E, hep-ex/9801027.
43. "Measurement of the Shape of the Transverse Momentum Distribution of W Bosons Produced in $p\bar{p}$ Collisions at $\sqrt{s}= 1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **80**, 5498 (1998), Fermilab-Pub-98/075-E, hep-ex/9803003.
44. "Limits on $WW\gamma$ and WWZ Couplings from W Boson Pair Production.," B. Abbott *et al.*, Phys. Rev. D **58** Rapid Communications 051101, Fermilab-Pub-98/076-E, hep-ex/9803004.
45. "Search for Charge 1/3 Third Generation Leptoquarks in $p\bar{p}$ Collisions at $\sqrt{s}= 1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **81**, 38 (1998), Fermilab-Pub-98/081-E, hep-ex/9803009.
46. "Limits on Anomalous $WW\gamma$ and WWZ Couplings.," B. Abbott *et al.*, Phys. Rev. D **58** Rapid Communications 031102, July 1998, Fermilab-Pub-98/094-E, hep-ex/9803017.
47. "Search for Heavy Pointlike Dirac Monopoles.," B. Abbott *et al.*, Phys. Rev. Lett. **81**, 524 (1998), Fermilab-Pub-98/095-E, hep-ex/9803023.
48. "Small Angle J/Psi Production in $p\bar{p}$ Collisions at $\sqrt{s}=1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 35 (1999), Fermilab-Pub-98/237-E, hep-ex/9807029.
49. "Measurement of the Top Quark Mass in the Dilepton Channel," B. Abbott *et al.*, Phys. Rev. D **60**, 052001 (1999); FERMILAB-Pub-98/261-E; hep-ex/9808029.

50. "Search for Squarks and Gluinos in Single-Photon Events with Jets and Large Missing Transverse Energy in $p\bar{p}$ Collision at $\sqrt{s}=1.8$ TeV.," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 29 (1999); Fermilab-Pub-98/243-E, hep-ex/9808010.
51. "Measurement of the Top Quark Pair Production Cross Section in $p\bar{p}$ Collisions using Multijet Final States.," B. Abbott *et al.*, Phys. Rev. D **60**, 012001 (1999); Fermilab-Pub-98/130-E, hep-ex/9808034.
52. "Search for nonstandard Higgs bosons using high mass photon pairs in $p\bar{p} \rightarrow \gamma\gamma + 2jets$ at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 2244 (1999), Fermilab-Pub-98/362-E, hep-ex/9811029.
53. "Measurement of high-mass Drell-Yan cross section and limits on quark-electron compositeness scales," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 4769 (1999); Fermilab-Pub-98/391-E; hep-ex/9812010.
54. "Measurement of W and Z boson production cross sections (Run 1a), B. Abbott *et al.*, Phys. Rev. D **60**, 052003 (1999); Fermilab-Pub-99/015-E; hep-ex/9901040.
55. "Search for charged Higgs bosons in decays of top quark pairs," B. Abbott *et al.*, Phys. Rev. Lett. **82**, 4975 (1999); Fermilab-Pub-99/029-E; hep-ex/9902028.
56. "Search for bottom squarks in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. D **60** Rapid Communications, 031101 (1999); Fermilab-Pub-99/046-E; hep-ex/99030041.
57. "Measurement of the top quark pair production cross section in the all-jets decay channel," B. Abbott *et al.*, Phys. Rev. Lett. **83**, 1908 (1999); Fermilab-Pub-99/008-E; hep-ex/9901023.
58. "Search for squarks and gluinos in events containing jets and a large imbalance in transverse momentum," B. Abbott *et al.*, Phys. Rev. Lett. **83**, 4937 (1999); Fermilab-Pub-98/402-E; hep-ex/9902013.
59. "Studies of WW and WZ production and limits on anomalous $WW\gamma$ and WWZ couplings," B. Abbott *et al.*, Phys. Rev. D **60**, 072002 (1999); Fermilab-Pub-99/139-E; hep-ex/9905005.
60. "Search for second generation leptoquark pairs decaying into $\mu\nu + jets$ in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **83**, 2896 (1999); Fermilab-Pub-99/123-E; hep-ex/9904023.
61. "Search for R-parity violation supersymmetry in the dielectron channel," B. Abbott *et al.*, Phys. Rev. Lett. **83**, 4476 (1999); Fermilab-Pub-99/200-E; hep-ex/9907019.
62. "The $b\bar{b}$ production cross section and angular correlations in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Lett. B **487**, 264 (2000); Fermilab-Pub-99/144-E; hep-ex/9905024.
63. "Extraction of the width of the W boson from measurements of $\sigma(p\bar{p} \rightarrow W + X) \times \text{Br}(W \rightarrow e\nu)$ and $\sigma(p\bar{p} \rightarrow Z + X) \times \text{Br}(Z \rightarrow ee)$ and their ratio," B. Abbott *et al.*, Phys. Rev. D **61**, 072001 (2000); Fermilab-Pub-99/171-E; hep-ex/9906025.

64. "Measurement of the inclusive differential cross section for Z bosons as a function of transverse momentum produced in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. D **61**, 032004 (2000); Fermilab-Pub-99/197-E; hep-ex/9907009.
65. "Small angle muon and bottom quark production in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **84**, 5478 (2000); Fermilab-Pub-99/202-E; hep-ex/9907029.
66. "A measurement of the W boson mass using large rapidity electrons," B. Abbott *et al.*, Phys. Rev. D **62** 092006, (2000); Fermilab-Pub-99/237-E; hep-ex/9908057.
67. "Differential production cross section of Z bosons as a function of transverse momentum at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **84**, 2792 (2000); hep-ex/9909020.
68. "A measurement of the W boson mass using electrons at large rapidities," B. Abbott *et al.*, Phys. Rev. Lett. **84**, 222 (2000); Fermilab-Pub-99/259-E; hep-ex/9909030.
69. "Search for second generation leptoquarks in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. Lett. **84**, 2088 (2000); Fermilab-Pub-99/314-E; hep-ex/9910040.
70. "Limits on Anomalous $WW\gamma$ and WWZ Couplings from $WW/WZ \rightarrow e\nu jj$ Production," Phys. Rev. D **62**, 052005 (2000); hep-ex/9912033.
71. "A measurement of the $W \rightarrow \tau\nu$ Production Cross Section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," Phys. Rev. Lett. **84**, 5710 (2000); Fermilab-Pub-99/373-E; hep-ex/9912065.
72. "A Search for Dilepton Signatures from Minimal Low-energy Supergravity in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. D Rapid Comm. **63**, 091102 (2001); FERMILAB-Pub-00/042-E; hep-wx/9907048v2.
73. "Spin Correlation in $t\bar{t}$ Production from $p\bar{p}$ Collisions at $\sqrt{s} = 1800$ GeV," Phys. Rev. Lett. **85**, 256 (2000), Fermilab-Pub-00/046-E, hep-ex/0002058.
74. "Search for R-parity Violation in Multilepton Final States in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," Phys. Rev. D Rapid Comm. **62**, 071701 (2000); Fermilab-Pub-00/109-E, hep-ex/000534.
75. "Search for New Physics in $e\mu X$ Data at DØ Using Sleuth: A Quasi-Model-Independent Search Strategy for New Physics," Phys. Rev. D **62**, 92004 (2000); Fermilab-Pub-00/126-E, hep-ex/0006011.
76. "Search for Electroweak Production of Single Top Quarks in $p\bar{p}$ Collisions," B. Abbott *et al.*, Phys. Rev. D Rapid Comm. **63**, 031101 (2001); FERMILAB-Pub-00/188-E, hep-ex/000824.
77. "Search for Large Extra Dimensions in Dielectron and Diphoton Production," B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1156 (2001); FERMILAB-Pub-00/210-E, hep-ex/0008065.
78. "Measurement of the Angular Distribution of Electrons from $W \rightarrow e\nu$ Decays Observed in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Rev. D **63**, 072001 (2001); FERMILAB-Pub-00/228-E, hep-ex/0009034.

79. "Differential Cross Section for W Boson Production as a function of Transverse Momentum in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," B. Abbott *et al.*, Phys. Lett. B **513**, 292, (2001). FERMILAB-Pub-00/268-E, hep-ex/0010026.
80. "A Quasi-Model-Independent Search for New High p_T Physics at DZero," B. Abbott *et al.*, Phys. Rev. Lett. **86**, 3712 (2001); FERMILAB-Pub-00/304-E; hep-ex/0011071.
81. "A Quasi-Model Independent Search for New Physics at Large Transverse Momentum," V. M. Abazov *et al.*, Phys. Rev. D **64**, 012004 (2001); FERMILAB-Pub-00/302-E, hep-ex/0011067.
82. "Search for Heavy Particles Decaying into Electron-Positron Pairs in $p\bar{p}$ Collisions," V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 061802 (2001); FERMILAB-Pub-01/024-E; hep-ex/0102048.
83. "Direct Search for Charged Higgs Bosons in Decays of Top Quarks," V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 151803 (2002); FERMILAB-Pub-01/022-E; hep-ex/0102039.
84. "Search for First-Generation Scalar and Vector Leptoquarks," V. M. Abazov *et al.*, Phys. Rev. D **64**, 092004 (2001); FERMILAB-Pub-01/057-E; hep-ex/0105072.
85. "Search for New Physics Using QUAERO: A General Interface to DZero Data," V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 012004 (2001); FERMILAB-Pub-01/105-E; hep-ex/0106039.
86. "Search for Single Top Production at $D\bar{O}$ Using Neural Networks," V. M. Abazov *et al.*, Phys. Lett. B **517**, 282 (2001); FERMILAB-Pub-01/102-E; hep-ex/0106059.
87. "Measurement of the ratio of differential cross sections for W and Z boson production as a function of transverse momentum," V. M. Abazov *et al.*, Phys. Lett. B. **517**, 299 (2001); FERMILAB-Pub-01/212-E, hep-ex/0107102.
88. "A search for the scalar top quark in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV," V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 171802 (2002); FERMILAB-Pub-01/233-E, hep-ex/0108018.
89. "Search for R-parity Violating Supersymmetry in Dimuon and Four-Jets Channel," V. M. Abazov *et al.*, Phys. Rev. Lett. **89**, 171801 (2002), FERMILAB-Pub-01/352-E; hep-ex/0111053.
90. "Search for Leptoquark Pairs Decaying to $\nu\nu +$ jets in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV," V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 191801 (2002); FERMILAB-Pub-01/349-E; hep-ex/0111047.
91. "A direct measurement of the W boson width," V. M. Abazov *et al.*, Phys. Rev. D **66**, 032008 (2002); FERMILAB-Pub-02/063-E, hep-ex/0204009.
92. "Improved W boson mass measurement with the $D\bar{O}$ detector," V. M. Abazov *et al.*, Phys. Rev. D **66**, 012001 (2002); FERMILAB-Pub-02/055-E, hep-ex/0204014.
93. "Search for minimal supergravity in single electron events with jets and large missing transverse energy in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV, V. M. Abazov *et al.*, Phys. Rev. D **66**, 112001 (2002); FERMILAB-Pub-02/074-E, hep-ex/0205002.

94. “ $t\bar{t}$ production cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Rev. D **67**, 012004 (2003); hep-ex/0205019.
95. “Search for production of single sleptons through R-Parity violation in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett **89**, 261801 (2002); hep-ex/0207100.
96. “Multiple jet production at low transverse energies in $p\bar{p}$ collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Rev. D **67**, 052001 (2003); FERMILAB-Pub-02/153-E, hep-ex/0207046.
97. “Search for large extra dimensions in the monojet + \cancel{E}_T channel with the DØ detector”, V. M. Abazov *et al.*, Phys. Rev. Lett. **90**, 251802 (2003); hep-ex/030214.
98. “Search for Narrow $t\bar{t}$ Resonances in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **92**, 221801 (2004); hep-ex/0307079.
99. “Search for 3- and 4-Body Decays of the Scalar Top Quark in Proton- Antiproton Collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **581**, 144 (2004); FERMILAB-PUB-03-306-E.
100. “Search for New Particles in the Two-Jet Decay Channel with the DØ Detector”, V. M. Abazov *et al.*, Phys. Rev. D Rapid Comm. **69**, 111101 (2004); hep-ex/0308033.
101. “Improved Measurement of the Top Quark Mass”, V. M. Abazov *et al.*, Nature **429**, 638 (2004); hep-ex/0406031, FERMILAB-Pub-04/083-E..
102. “Search for Doubly-charged Higgs Boson Production in the Decay $H^{++}H^{--} \rightarrow \mu^+\mu^+\mu^-\mu^-$ with the DØ Detector at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett **93**, 141801 (2004); hep-ex/040415; FERMILAB-PUB-04/045-E.
103. “Search for Pair Production of Light Scalar Top Quarks in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **93**, 011801, (2004); hep-ex/0308033.
104. “Observation and Properties of the $X(3872)$ Decaying to $J/\psi\pi^+\pi^-$ in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, submitted to PRL; hep-ex/0405004, Fermilab-Pub-04/061-E.
105. “A New Measurement of the Top Quark Mass in Lepton + Jets $t\bar{t}$ Events at DØ”, V. M. Abazov *et al.*, submitted to Phys. Rev. Lett. (2004).
106. “Helicity of the W Boson in Lepton + Jets $t\bar{t}$ Events”, V. M. Abazov *et al.*, submitted to Phys. Rev. Lett. (2004); hep-ex/0404040; FERMILAB-Pub-04/057-E.
107. “Search for Supersymmetry with Gauge-Mediated Breaking in Diphoton Events at DØ”, V. M. Abazov *et al.*, Phys. Rev. Lett. **94**, 041801 (2005); hep-ex/0408146; FERMILAB-Pub-04/198-E.
108. “Combination of CDF and DØ results on W boson mass and width”, V. M. Abazov *et al.*, Phys. Rev. D **70**, 092008 (2004); hep-ex/0311039v2.
109. “Measurement of the B_s^0 Lifetime in the Exclusive Decay Channel $B_s^0 \rightarrow J/\psi\phi$ ”, V. M. Abazov *et al.*, Phys. Rev. Lett. **94**, 042001 (2005); hep-ex/0409043; FERMILAB-Pub-04-225-E.

110. “A Search for the Flavor-Changing Neutral Current Decay $B_s^0 \rightarrow \mu^+ \mu^-$ in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. Lett. **94**, 071802 (2005); hep-ex/0410039; FERMILAB-Pub-04-215-E.
111. “Measurement of the Ratio of B^+ and B_0 Lifetimes”, V. M. Abazov et al, Phys. Rev. Lett. **94**, 182001 (2005); hep-ex/0410052; FERMILAB-Pub-04-284-E.
112. “Measurement of the Λ_b Lifetime in the Decay $\Lambda_b \rightarrow J/\psi \Lambda$ with the DØ Detector”, V. M. Abazov et al, Phys. Rev. Lett. **94** 102001 (2005); hep-ex/0410054; FERMILAB-Pub-04-286-E.
113. “A Search for $Wb\bar{b}$ and WH Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. Lett. **94** 091802 (2005); hep-ex/0410062; FERMILAB-Pub-04-288-E.
114. “Measurement of the WW Production Cross Section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. Lett. **94**, 151801 (2005); hep-ex/0410066; FERMILAB-Pub-04-293-E.
115. “Measurement of the Top Quark Mass in Alljets Events”, V. M. Abazov et al, Phys. Lett. B **606**, 25 (2005); hep-ex/0410086; FERMILAB-Pub-04-305-E.
116. “A Measurement of the Ratio of Inclusive Cross Sections $p\bar{p} \rightarrow Zb/p\bar{p} \rightarrow Zj$ at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. Lett. **94**, 161801 (2005); hep-ex/0410078; FERMILAB-Pub-04-297-E.
117. “A search for anomalous heavy-flavor quark production in association with W bosons”, V. M. Abazov et al, Phys. Rev. Lett. **94**, 152002 (2005); hep-ex/0411084; FERMILAB-Pub-04-359-E.
118. “First measurement of $\sigma(p\bar{p} \rightarrow Z) \times \text{Br}(Z \rightarrow \tau\tau)$ at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. D **71**, 072004 (2005); hep-ex/0412020; FERMILAB-Pub-04-381-E.
119. “Search for first-generation scalar leptoquarks in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov et al, Phys. Rev. D Rap. Comm. **71**, 071104(R)(2005); hep-ex/0412029; FERMILAB-Pub-04-389-E.
120. “Study of $Z\gamma$ events and limits on anomalous $ZZ\gamma$ and $Z\gamma\gamma$ couplings in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 051802 (2005); hep-ex/0502036; FERMI-PUB-05-023-E.
121. “Measurement of inclusive differential cross sections for $\Upsilon(1S)$ production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **94**, 232001 (2005); hep-ex/0502030; FERMI-PUB-05-020-E.
122. “Measurement of the $p\bar{p} \rightarrow W\gamma + X$ Cross section and Limits on Anomalous $WW\gamma$ Couplings at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm. **71**, 091108 (2005); hep-ex/0503048; Fermilab-Pub-05/046-E.
123. “Production of WZ Events in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV and Limits on Anomalous WWZ Couplings”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 141802, (2005); hep-ex/0504019, Fermilab-Pub-05/061-E.
124. “Search for neutral supersymmetric Higgs boson in multijet events at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 151801 (2005); hep-ex/0504018, Fermilab-Pub-05/058-E.

125. “Measurement of the $t\bar{t}$ cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using kinematic characteristics of lepton plus jet events”, V. M. Abazov *et al.*, Phys. Lett. B **626**, 45 (2005); hep-ex/0504043, Fermilab-Pub-05/079-E.
126. “Measurement of the $t\bar{t}$ cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV using lepton plus jets events with lifetime b-tagging”, V. M. Abazov *et al.*, Phys. Lett. B **626**, 35 (2005); hep-ex/0504058, Fermilab-Pub-05/087-E.
127. “Search for supersymmetry via associated production of charginos and neutralinos using trilepton final states”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95** 151805 (2005); hep-ex/0504032, Fermilab-Pub-05/075-E.
128. “Search for Randall-Sundrum Gravitons in Dilepton and Diphoton Final States”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 091801 (2005); hep-ex/0505018, Fermilab-Pub-05/126-E.
129. “Search for right-handed W bosons in top quark decay”, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm **72**, 011104 (R) (2005); hep-ex/0505031, Fermilab-Pub-05/187-E.
130. “Search for single top quark production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **622** 265-276 (2005); hep-ex/0505063, Fermilab-Pub-05/207-E.
131. “Measurement of the $t\bar{t}$ production cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV in dilepton final states”, V. M. Abazov *et al.*, Phys. Lett. B **626**, 55 (2005); hep-ex/0505082, Fermilab-Pub-05/217-E.
132. “Search for large extra spatial dimensions in dimuon production at $D\bar{D}$ ”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95** 161602 (2005); hep-ex/0506063; Fermilab-Pub-05/250-E.
133. “Measurement of semileptonic branching fractions of B mesons to narrow D^{**} states”, V. M. Abazov *et al.*, Phys. Rev. Lett. **95** 171803 (2005); hep-ex/0507046; Fermilab-Pub-05/313-E.
134. “Measurement of the lifetime difference in the B_s system, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 171801 (2005); hep-ex/0507084, Fermilab-Pub-05/324-E.
135. “Search for the Higgs Boson in $H \rightarrow WW^{(*)}$ Decays in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, Phys. Rev. Lett. **96**, 011801 (2006); hep-ex/0508054; Fermilab-Pub-05/377-E.
136. “Search for Pair Production of Second Generation Leptoquarks in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **636**, 183 (2006); hep-ex/0601047, FERMI-Pub-06/017-E.
137. “Direct Limits on B_s^0 Oscillation Frequency”, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 021802 (2006); hep-ex/0603029, FERMI-Pub-06/055-E.
138. “Search for the Rare Decay $B0_s \rightarrow \phi\mu^+\mu^-$ with the $D\bar{D}$ Detector”, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm. **74**, 031107 (2006); hep-ex/0604015; Fermilab-Pub-06/073-E.
139. “Search for Squarks and Gluinos in Events with Jets and Missing Transverse Energy in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV”, V. M. Abazov *et al.*, Phys. Lett. B **638**, 119 (2006); hep-ex/0604029; Fermilab-Pub-06/077-E.

140. "Search for Excited Muons in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV", V. M. Abazov *et al.*, Phys. Rev. D (Rapid Communications) **73**, 111102 (2006); hep-ex/0604040; Fermilab-Pub-06/081-E.
141. "Search for R-parity Violating Supersymmetry via the LLE Couplings Λ_{121} , Λ_{122} , or Λ_{133} in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV", V. M. Abazov *et al.*, Phys. Lett. B **638**, 441 (2006); hep-ex/0605005; Fermilab-Pub-06/089-E.
142. "Search for Neutral Higgs Bosons Decaying to tau pairs in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV", V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 121802 (2006); hep-ex/0605009; Fermilab-Pub-06/092-E.
143. "Search for Resonant 2nd Generation Slepton Production at the Tevatron", V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 111801 (2006); hep-ex/0605010; Fermilab-Pub-06/094-E.
144. "Search for Heavy Resonance Decaying into a Z +jet Final State in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV using the DØ Detector", V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm. **74**, 100104 (2006); hep-ex/0606018; Fermilab-Pub-06/167-E.
145. "Search for associated Higgs boson production $WH \rightarrow WWW^* \rightarrow \ell^\pm \nu \ell'^\pm \nu' + X$ in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV", V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 151804 (2006); hep-ex/0607032; Fermilab-Pub-06/246-E.
146. "Limits on anomalous trilinear gauge couplings from $WW \rightarrow ee$, $WW \rightarrow e\mu$, and $WW \rightarrow \mu\mu$ events from $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV", V. M. Abazov *et al.*, Phys. Rev. D Brief Rep. **74**, 057101 (2006); hep-ex/0608011; Fermilab-Pub-06/268-E.
147. "Search for scalar leptoquarks in the acoplaner jet topology", V. M. Abazov *et al.*, Phys. Lett. B **640**, 233 (2006); hep-ex/0607009; FERMI-Pub-06/233-E.

Published Conference Talks

"UA8: Semi-Inclusive Measurements of Jets in Final States with Leading Protons or Lambdas," Proceedings of the 8th Topical Workshop on Proton-Antiproton Collider Physics; Castiglione della Pescaia, Italy, 192 (1989).

"Jets in Single Diffraction and Pomeron Structure," Proceedings of Fourth International Conference on Elastic and Diffractive Scattering; Elba, Italy, May 22–26 1991.

"Hard Diffraction and Rapidity Gaps," Proceedings from Workshop on Physics at Current Accelerators and the Supercollider; Madison WI, June 2–5 1993.

"Jets with Large Rapidity Separation," Proceedings of the 27th International Conference on High Energy Physics; Glasgow, Scotland, July 20–27 1994.

"Hard Diffraction and Rapidity Gaps," Proceedings from 15th International Conference on Physics in Collision; Cracow, Poland, June 8–10 1995.

"Rapidity Gaps in Jet Events at DØ," Proceedings of the 11th Topical Workshop on Proton-Antiproton Collider Physics; Abano Terme, Italy, (1996).

“QCD Subgroup on Diffractive and Forward Physics,” M. Albrow *et al.*, Proceedings of 1996 DPF Study on New Directions for High-energy Physics (Snowmass ’96); Snowmass CO (1996).

“Full Rapidity Physics at the VLHC,” A. Brandt and C. Taylor, Proceedings of Very Large Hadron Collider Physics and Detector Workshop; Batavia IL, March 13–15 1997.

“Hard Diffraction at DØ,” Proceedings from 5th International Workshop on Deep Inelastic Scattering and QCD; Chicago IL, April 14–18 1997.

“Proposal for a Forward Proton Detector at DØ,” Proceedings of International Symposium on Near Beam Physics; Batavia IL, September 22–24 1997.

“Proposal for a Forward Proton Detector at DØ,” DØ Collaboration, Proposal P-900 submitted to the Fermilab PAC; A. Brandt *et al.* FERMILAB PUB-97-377.

“DØ Rapidity Gap Studies,” Proceedings of the Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, March 1999.

“The DØ Forward Proton Detector,” Proceedings of the Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, November 1999.

“Introduction to Diffractive Physics at Run II,” M. Albrow, A. Brandt, A. Mueller, C. Schmidt, Proceedings of the Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, 1999.

“Hard Diffraction at the Tevatron,” Proceedings from 2nd e-RHIC Workshop, Yale CT, April 6-8 2000.

“DØ Hard Diffraction in Run I and Run II,” Proceedings from 8th International Workshop on Deep Inelastic Scattering and QCD, Liverpool England, April 25-30 2000.

“Diffractive Working Group Summary,” M. Arneodo and A. Brandt, Proceedings from 8th International Workshop on Deep Inelastic Scattering and QCD, Liverpool UK, April 25-30 2000.

Other Conference Talks and Seminars

“Jet Measurements in Events with Leading Protons at the SPS-Collider,” CERN PPE Seminar, Geneva Switzerland, Dec. 16 1991.

“Jet Production in $p\bar{p}$ interactions tagged with Large-x Protons,” Workshop on Small-x and Diffractive Physics at the Tevatron, Batavia Illinois, September 1992.

“Evidence for Partonic Structure of the Pomeron,” Workshop on Strong Interaction Physics at Hadron Colliders—Institute for Nuclear Theory, Batavia Illinois, August 1993.

“Rapidity Gaps at $D\bar{D}$,” CTEQ Workshop: QCD at 2 TeV, Lansing Michigan, October 1993.

“Rapidity Gaps,” Fermilab Food for Thought Seminar, Batavia Illinois, November 1993.

“QCD with Large Rapidity Jets at $D\bar{D}$,” University of Maryland Seminar, College Park Maryland, February 1994.

“Rapidity Gaps,” Michigan State University Seminar, Lansing Michigan, March 1994.

“Rapidity Gaps between Jets at $D\bar{D}$,” Fermilab Wine and Cheese Seminar, Batavia Illinois, June 1994.

“Rapidity Gaps between Jets at $D\bar{D}$,” CERN PPE Seminar, Geneva Switzerland, August 1994.

“Jets with Large Rapidity Separation at $D\bar{D}$,” DESY HEP Seminar, Hamburg Germany, April 1995.

“Rapidity Gaps and Color Singlet Exchange,” Fermilab Food for Thought Seminar, Batavia Illinois, October 1995.

“Hard Diffraction at $D\bar{D}$,” QCD Working Group, Snowmass Colorado, July 1996.

“Run II Forward Proton Detector,” $D\bar{D}$ Physics and Technical Review, Batavia Illinois, October 1996.

“Experimental Studies of Hard Processes with Rapidity Gaps,” University of Michigan Seminar, Ann Arbor Michigan, December 1996.

“Experimental Studies of Hard Processes with Rapidity Gaps,” Case Western Reserve University Seminar, Cleveland Ohio, February 1997.

“Summary of Full Rapidity Physics Working Group,” Very Large Hadron Collider Physics and Detector Workshop, Batavia Illinois, March 1997.

“Hard Diffraction at $D\bar{D}$,” Interplay Between Soft and Hard Interactions in Deep Inelastic Scattering, Heidelberg Germany, September 1997.

“Hard Diffraction at $D\bar{D}$,” DESY HEP Seminar, Hamburg Germany, October 1997.

“Proposal for a Forward Proton Detector at $D\bar{D}$,” Fermilab PAC, Batavia Illinois, October 1997.

“Hard Diffraction at $D\bar{D}$,” Penn State University Seminar, College Station Pennsylvania, November 1997.

“Hard Diffraction at $D\bar{D}$,” University of Chicago Seminar, Chicago Illinois, January 1998.

“Hard Diffraction at the Tevatron,” LAFEX International School of High Energy Physics (LISHEP '98), Rio de Janeiro, February 1998.

“Hard Diffraction at $D\emptyset$,” Brown University Seminar, Providence Rhode Island, March 1998.

“Physics with a Full Acceptance Detector at the VLHC Booster,” VLHC physics seminar, Batavia Illinois, March 1998.

“Probing Hard Color-Singlet Exchange at $D\emptyset$ ” 4th Small-x and Diffractive Workshop, Batavia Illinois, September 1998.

“Hard Diffraction at $D\emptyset$ ” University of Washington Seminar, Seattle Washington, February 1999.

“Hard Diffraction at $D\emptyset$ and the Forward Proton Detector” NIKHEF Colloquium, Amsterdam The Netherlands, March 1999.

“Hard Diffraction at $D\emptyset$ ” Johns Hopkins University Seminar, Baltimore Maryland, March 1999.

“ $D\emptyset$ Run II Possibilities,” Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, March 1999.

“ $D\emptyset$ Run I Central Gaps and Run II Plans,” Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, March 1999.

“Hard Diffraction at $D\emptyset$ ” University of Texas at Arlington Seminar, Arlington Texas, April 1999.

“Update on $D\emptyset$ Forward Proton Detector,” Run II QCD and Weak Boson Physics Workshop, Batavia Illinois, November 1999.

“Hard Diffraction at $D\emptyset$ and the Forward Proton Detector” Brookhaven National Labs, New York, December 1999.

“ $D\emptyset$ Hard Diffraction and Rapidity Gaps,” Manchester University Seminar, Manchester England, April 2000.

“ $D\emptyset$ Hard Diffraction in Run I and prospects for Run II,” High Energy QCD: Beyond the Pomeron Workshop, Brookhaven National Lab NY, May 2001.

“Diffraction at $D\emptyset$ Run I results and Run II prospects,” Workshop on Low-x Physics 2001, Krakow Poland, June 2001.

“Observation of Diffractively Produced W- and Z-Bosons,” Lishep02, Rio de Janeiro, Brazil, February 2002.

“Hard Diffraction: An Experimentalist’s Perspective,” (2 Lectures), CTEQ Summer School, Madison WI, June 2002.

“ $D\emptyset$ Forward Proton Detector,” ATLAS Mini-Workshop on Forward Physics, Clermont-Ferrand France, June 2002.

“Diffraction at $D\emptyset$,” Workshop on Low-x Physics 2003, Nafplion, Greece, June 2003.

“Forward Physics with ATLAS,” Small x and Diffraction 2003 Workshop, Batavia IL, September 2003.

“Diffraction at DØ,” Physics with Forward Proton Taggers Workshop, Manchester, England, December 2003.

“GTeV: Gluon Physics at the Tevatron,” Diffraction at the LHC Workshop, Rio de Janeiro, Brazil. April 2004.

“DØ QCD: Past, Present, and Future,” Jefferson Lab Physics Seminar, Newport News, VA 2004.

“Diffractive Results and Plans in DØ,” The Future of QCD at the Tevatron Workshop, Batavia, IL, May 2004.

“DØDiffraction/FPD Update,” Physics with Forward Proton Taggers Workshop, Manchester, England, December 2004.

“Moving Forward: DØ Diffraction to LHC,” TeV4LHC Workshop, Brookhaven, NY Feb. 2005.

“QUARTIC, A TOF for ATLAS/CMS Forward Protons,” Pico-Sec Timing Hardware Workshop, University of Chicago, IL, Nov. 2005.

“FPD Overview” and “Fermilab Testbeam,” The Future of Forward Physics at the LHC Workshop, Manchester, England, December 2005.

“Forward Protons from the SPS to the LHC,” SLAC Physics Seminar, CA, Mar. 2006.

“FP420/QUARTIC,” UTA 10 Psec Workshop, UTA, April 2006.

“FP420 Overview,” Texas APS Workshop, UTA, October 2006.

“Fast-timing Overview, Testbeam, and Milestones,” Physics with FP420 Workshop Manchester, England, December 2006.

Conference Organization

Organizing Committee, 2nd Small-x and Diffractive Workshop, Fermilab, September 1994.

Organizing Committee, 3rd Small-x and Diffractive Workshop, Argonne, September 1996.

Co-Convenor, QCD Subgroup, Workshop on New Directions for High Energy Physics, Snowmass Colorado, July 1996.

Co-Convenor, Full Rapidity Physics Working Group, VLHC Workshop, Batavia, Illinois, March 1997.

Co-Chairman, Lishep98, Rio de Janeiro, Brazil, February 1998.

Co-Chairman, 4th Small-x and Diffractive Workshop, Fermilab, September 1998.

Co-Convenor, Diffractive and Color Coherence Working Group, Run II QCD and Weak Boson Physics Workshop, Fermilab, March, June, and November 1999.

Co-Convenor, Working Group on High Energy Scattering and Diffraction, 8th International Workshop on Deep Inelastic Scattering and QCD, Liverpool England, April 2000.

International Advisory Committee, Workshop on Forward Physics and Luminosity Determination at LHC, Helsinki Finland, October 2000.

Co-Chairman, Lishep02, Rio de Janeiro, Brazil, February 2002.

International Advisory Committee, Diffraction 2002 Workshop, Crimea, Ukraine, August 2002.

Organizing Committee, Arlington Linear Collider Workshop, Arlington TX, January 2003.

Organizing Committee, 5th Small-x and Diffractive Workshop, Fermilab, September 2003.

Organizing Committee, Diffraction at the LHC Workshop, Rio de Janeiro Brazil, March 2004

Co-Chairman, Future of QCD at the Tevatron Workshop, Fermilab, May 2004.

Chairman UTA 10 Picosecond Workshop, Arlington, April 2006.

Organizing Committee, 6th Small-x and Diffractive Workshop, Fermilab, March 2007.

Teaching

1999-2005 Supervised Ph.D student Michael Strang

1999-2000 Undergraduate E&M class (1442) and Graduate Special Topics class on "High Energy Physics Detectors" (5391), supervised undergraduate labs

2000-2001 Undergraduate E&M classes (1442) and Graduate Special Topics class on "Topics in High Energy Physics" (5391), supervised undergraduate labs

2001-2002 Undergraduate E&M classes (1442), supervised undergraduate labs

2002-2003 Graduate Particle Physics (5325), Undergraduate E&M class (1442), supervised undergraduate labs

2003-2004 Modern Physics (3313), Undergraduate Mechanics (1443), supervised undergraduate labs

2004-2005 Modern Physics (3313), Modern Physics (3313)

2005-2006 Modern Physics (3313), Modern Physics (3313)

2006-2007 Particle Physics I (5325)

Undergraduate Student Supervision

Goutham Morab, Fall 2000
Karthik Gopalratnam, Fall 2000
Sahil Aggarwal, January-December 2002
Deepak Shivashankar (Engineering M.S. student), Mar 2000–December 2003
Chance Harenza Sep.–Dec. 2005
Joaquin Noyola Sep.–Dec. 2005
Alekh Malcolm Jan. 2006–October 2006
Shane Spivey June 2006–December 2006

Graduate Student Supervision

At Fermilab

Brent May, University of Arizona (Ph. D.), 1994
Tracy Thomas, Northwestern (Ph. D.), 1997
Jill Perkins, University of Texas at Arlington (Ph.D.), 1998
Kristal Mauritz, Iowa State University (Ph. D.), 1999
Linda Coney, Notre Dame (Ph. D.), 2001

At UTA

Shane Spivey, M.S. student, January 2007–present.
Arnab Pal, M.S. student, June 2006–present.
Pedro Duarte, M.S. student, Sep. 2005–present.
Michael Strang, Ph.D student, “First Observation of Dijet Events with an Antiproton Tag at $\sqrt{s} = 1.96$ TeV Using the DØ Forward Proton Detector,” Awarded Ph.D. August 2005.

Post-Doctoral Supervision

Christophe Royon (Ph.D Physicist), March 2000–July 2002
Lionel Peyrichoux (Engineer), June 2000–August 2001
Pierrick Hanlet (Ph.D Physicist), July 2001–May 2002
Carlos Avila (Ph.D Physicist), June–November 2002, June–August 2003
Ricardo Ramirez (Engineer), April 2002–August 2003
Daniel Mendoza (Engineer), July–December 2003
Duncan Brown (Ph.D Physicist), May 2004–present

Masters Defense Committees

1. Barry Spurlock, "Intercalibration of Photomultiplier Tube Test Benches through Precision testing of their Internal Photodiodes," November 2001.
2. Nevzat Guler, "Performance Characterization of the Silicon Microstrip Detectors of PP2PP Experiment," December 2001.
3. Shahnoor Habib, "Simulation studies of a new digital hadronic calorimeter using Gas Electron Multiplier (GEM)," June 2003.
4. Venkatesh Kaushik, "Performance of Novel Digital Hadron Calorimeter Using Gas Electron Multiplier (GEM) and the Energy Flow Algorithm Development," April 2004.

Service

Physics Representative for Research Day Oct. 2005
Undergraduate Advisor Sep. 2004–present
Graduate Studies Committee Sep. 1999–present
Science Hall Renovation Committee (Chairman) Sep. 2004–present
Class Schedule Committee Sep. 2004–present
Undergraduate Curriculum Committee Sep. 2004–present
Undergrad Recruitment and Retention Committee Sep. 2004–present
Strategic Planning Committee Jan. 2005–present
Campus Master Planning Subcommittee Sep. 2006–present
HEP Search Committee Sep. 2006–present
Nano-bio Search Committee Sep. 2005–May 2006
University Hearing Panel Mar.–May 2006
Competitive Hire Committee (Chairman) Jan. 2005–Sep. 2005
College of Science Strategic Planning Committee Jan. 2003–Sep. 2005
Tenure and Promotions Committee Sep. 2004–Aug. 2005
Graduate Recruitment Committee Jan. 2002–Aug. 2004
Departmental Building Committee (Chairman) Sep. 2001–Aug. 2004
Public Relations Officer Sep. 1999–2004
Library Committee Sep. 1999–2001
Graduate Admissions Committee Sep. 2000–2003
Colloquium Committee (Chairman) Sep. 2000–2002
Colloquium Committee Sep. 2002–Aug. 2003
Chemical Safety Officer Sep. 2000–2002
Junior Faculty Roundtable 2001–2002