

## CURRICULUM VITAE - January 2020

David Hedin  
Department of Physics  
Northern Illinois University  
DeKalb, Ill 60115

Fellow, American Physical Society

### Employment

- 2015-2016 Interim Director, NICADD, Department of Physics.  
2009- Board of Trustees Professor, Northern Illinois University.  
2002- Distinguished Research Professor, Northern Illinois University.  
2007-2015 Deputy Director, NICADD, Department of Physics.  
2013-2014 Acting Director of Graduate Studies, Department of Physics.  
2000-2009 Director of Graduate Studies, Department of Physics.  
2000-2007 Assistant Chair, Department of Physics.  
1999-2000 Acting Director of Graduate Studies, Department of Physics.  
1998-2002 Presidential Research Professor, Northern Illinois University.  
1996-1998 Professor, Northern Illinois University, Department of Physics.  
1990-1996 Associate Professor, Northern Illinois University, Department of Physics.  
1987-1990 Assistant Professor, Northern Illinois University, Department of Physics.  
1986 Senior Research Associate, SUNY at Stony Brook, Department of Physics.  
1985-1986 Research Associate, SUNY at Stony Brook, Department of Physics.  
1981-1985 Postdoctoral Research Associate, SUNY at Stony Brook, Department of Physics.  
1976-1980 Research Assistant, University of Wisconsin, Department of Physics.  
1975-1976 Wisconsin Alumni Research Foundation Fellow, University of Wisconsin.

### Education

- 1975-1980 University of Wisconsin. Ph.D. Thesis topic: "A Measurement of the Rate of Formation of Pi-Mu Atoms in  $K_L$  Decay". Advisor: S.H. Aronson.  
1972-1975 Southern Illinois University, B.S. Physics, award for academic excellence, graduated first in class of 3500.

### RESEARCH ACTIVITIES

- 1976-1982 Participated in experiments E-226, E-486, E-533 and E-584 (Chicago - Stanford - Wisconsin) at Fermilab. Measured the  $K_L$ -nucleus total cross section, the  $K_L$  to  $K_S$  regeneration rate by nuclei and electrons, the formation rate of pi-mu atoms in  $K_L$  decay and set limits on the production of new long-lived particles with masses between .5 and 5 GeV. Responsibilities for constructing the M3 neutral beam; for constructing and monitoring the analyzing magnets; for operation of the trigger system; for developing the Monte Carlo and pattern recognition software programs; and for analyzing the pi-mu atom data.
- 1981-1986 Participated in experiments E-734 and E-775 (BNL-Brown-Hiroshima-KEK-Osaka-Pennsylvania-Stony Brook) at Brookhaven. Measured the elastic scattering of neutrinos and antineutrinos off electrons and protons and searched for neutrino oscillation via  $\nu_\mu \rightarrow \nu_e$ . Responsibilities for constructing the lead-liquid scintillator shower counter; for designing, constructing and operating the magnetic spectrometer; for determining the energy spectrum and flavor composition of the neutrino beam; for developing the Monte Carlo and pattern recognition software programs; for analyzing the neutrino-proton elastic scattering data.
- 1982-2019 Participated in the design and construction of a detector for the Fermilab proton-antiproton collider (the D0 collaboration). While at Stony Brook, had responsibilities for measuring the hadronic punchthrough probability; for estimating the muon trigger rate; for the muon drift tube design; for the muon drift tube layout; and for coordinating

the muon software and identification effort (1985-1993,1994-1997,2000-2001,2008-2013). After forming the NIU group in 1986, developed the muon analysis program; developing and testing the muon trigger and readout system; and testing muon electronic components. Co-coordinator of the B-physics analysis group (1991-1994). Participated in discovery of the top quark (1993-1995): organized 1993 workshop at NIU; on internal review panel for 1994 results; did final verification of muon identification for 1995 discovery. Measured b-quark production cross section. Searched for new phenomena decaying into neutrinos plus two b-quarks; set limits on third generation leptoquarks, ZX decays, and bottom squarks (1996-1999). Participated in D0 muon upgrade (1993-2002) with responsibilities for detector design, for the construction and operation of central scintillation counters, for the development of aspects of the muon reconstruction software. Using Run II data, searched for new particles including long-lived massive particles, third generation leptoquarks, scalar bottom quarks, and due to an excess of dimuon events at large distance, as well as studies of dimuon charge asymmetries and  $H \rightarrow ZZ$  plus ZZ both to four leptons. Insitutional Board deputy chair (2013-14) and chair (2014-).

- 1985-1993 Participated in detector design for the SSC; 1991-1993, member of the SDC collaboration primarily involved in the muon system.
- 1999-2002 Participated in muon cooling R&D for use at a possible muon collider or neutrino factory.
- 2001-2013 Participated in studies for detectors at an electron-positron linear collider (ILC) or muon collider, and in detector applications including proton tomography.
- 2011-2019 Member, Mu2E collaboration at Fermilab; design (physics and mechanical) of muon beam stop, simulations of backgrounds, co-convenor neutron task force (2012-2018; R&D of extinction monitor; co-convenor simulation group (2018-2019). Member Executive Committee (2012-2014), Publication Board (2018-2019).
- 2012-2013 Member, g-2 collaboration at Fermilab, supervising students.

### PUBLICATIONS (refereed)

1.  $K_S$  Regeneration on Electrons from 30 to 100 GeV/c: A Measurement of the  $K^0$  Charge Radius, W.R. Molzon, J. Hoffnagle, J. Roehrig, V.L. Telegdi, B. Winstein, S.H. Aronson, G.J. Bock, D. Hedin, G.B. Thomson, A. Gsponer, Phys. Rev. Lett., **41**, 1213 (1978).
2.  $K_L$ -Nucleus Total Cross Sections Between 30 and 150 GeV/c: Quantitative Evidence for Inelastic Screening, A. Gsponer, et al., Phys. Rev. Lett., **42**, 9 (1979).
3. Precise Coherent  $K_S$  Regeneration Amplitudes for C, Al, Cu, Sn, and Pb Nuclei from 20 to 140 GeV/c and their Interpretation, A. Gsponer, et al., Phys. Rev. Lett., **42**, 13 (1979).
4. Measurement of the Rate of Formation of Pi-Mu Atoms in  $K_L$  Decay, S.H. Aronson, R.H. Bernstein, R.D. Cousins, Jr., J.F. Greenhalgh, D. Hedin, M. Schwartz, T.K. Shea, G.B. Thomson, B. Winstein, Phys. Rev. Lett.,**48**, 1078 (1982).
5. Measurement of the Cross Section of  $\nu_\mu + e^- \rightarrow \nu_\mu + e^-$ , L.A. Ahrens, et al., Phys. Rev. Lett., **51**, 1514 (1983).
6. Response of a Highly Segmented Extruded Lead Glass Calorimeter to Electrons and Pions Between 15 and 45 GeV/c, R. Engelmann, L. Godfrey, P.D. Grannis, D. Hedin, D.E. Jaffe, T. Kafka, M.D. Marx, R. Dixon, H. Jostlein, P. Franzini, D. Cutts, R.E. Lanou, S. Aronson, NIM, **216**, 45 (1983).
7. Measurement of the Ratio of Cross Sections for Neutrino and Antineutrino Scattering from Electrons, L.A. Ahrens, et al., Phys. Rev. Lett., **54**, 18 (1985).
8. New Limit on the Strength of Mixing Between  $\nu_\mu$  and  $\nu_e$ , L.A. Ahrens, et al., Phys. Rev. D, **31**, 2732 (1985).
9. Precise Determination of  $\sin^2\theta_W$  from Measurements of the Differential Cross Sections for  $\nu_\mu + p \rightarrow \nu_\mu + p$  and  $\bar{\nu}_\mu + p \rightarrow \bar{\nu}_\mu + p$ , K. Abe, et al., Phys. Rev. Lett., **56**, 1107 (1986).

10. Hadron Showers and Muon Trajectories in Thick Absorber from 25 GeV/c to 150 GeV/c, D. Green, H. Fenker, H. Haggerty, P. Martin, M. Takasaki, R. Yamada, S. Kunori, P. Rapp, D. Owen, P. Grannis, D. Hedin, NIM, **A244**,356 (1986).
11. Measurement of the Rate of Formation of Pi-Mu Atoms in  $K_L$  Decay, S.H. Aronson, R.H. Bernstein, R.D. Cousins, Jr., J.F. Greenhalgh, D. Hedin, M. Schwartz, T.K. Shea, G.B. Thomson, B. Winstein, Phys. Rev. D, **33**, 3180 (1986).
12. Determination of the neutrino fluxes in the Brookhaven wide-band beams, L.A. Ahrens, et al., Phys. Rev. D, **34**, 75 (1986).
13. Measurement of neutrino-proton and antineutrino-proton elastic scattering, L.A. Ahrens, et al., Phys. Rev. D, **35**, 785 (1987).
14. Measurement of the Weak-Neutral-Current Coupling Constants of the Electron and Limits on the Electromagnetic Properties of the Muon Neutrino, K. Abe, et al., Phys. Rev. Lett., **58**, 636 (1987).
15. A Massive, Fine-Grained Detector for the Elastic Reactions Induced by Neutrinos in the GeV Energy Region, L.A. Ahrens, et al., NIM, **A254**, 515 (1987).
16. Comparison of narrow-band and wide-band neutrino beams in the search for  $\nu_\mu \rightarrow \nu_e$  oscillations, L.A. Ahrens, et al., Phys. Rev. D, **36**, 702 (1987).
17. A Search for Heavy Neutrino Decays in a Neutrino Beam, L.A. Ahrens, et al., Physics Letters B, **194**, 586 (1987).
18. The Use of SA/SD Methods in D0 Software Development, J. Linnemann, et al., Computer Physics Communications, **45**, 245 (1987).
19. A study of the axial-vector form factor and second class currents in antineutrino quasielastic scattering, L.A. Ahrens, et al., Physics Letters B, **202**, 284 (1988).
20. Search for new, long-lived, neutral particles, R.H. Bernstein, T.K. Shea, B. Winstein, R.D. Cousins, Jr., J.F. Greenhalgh, M. Schwartz, G.J. Bock, D. Hedin, G.B. Thomson, Phys. Rev. D, **37**, 3103 (1988).
21. Determination of  $\sin^2\theta_W$  from Measurements of the Differential Cross Sections for Muon-Neutrino and -Antineutrino Scattering by Electrons, K. Abe, et al., Phys. Rev. Lett., **62**, 1709 (1989).
22. D0 muon system with proportional drift tube chambers, C. Brown, et al., NIM, **A279**, 331 (1989).
23. Determination of electroweak parameters from the elastic scattering of muon neutrinos and antineutrinos on electrons, L.A. Ahrens, et al., Phys. Rev. D, **41**, 3297 (1990).
24. Study of Fast Gases, Resolutions, and Contaminants in the D0 Muon System, J.M. Butler, et al., NIM, **A290**, 122 (1990).
25. Muon Rates at the SSC, D. Green and D. Hedin, NIM, **A297**, 111 (1990).
26. Elastic scattering of muon-neutrinos and muon-antineutrinos by electrons, K. Abe, et al., Nuclear Physics B (Proc. Suppl.) **13**, 325 (1990).
27. The D0 Muon VME-based Trigger Electronics, M. Fortner, et al., IEEE Transactions on Nuclear Science, **38**, 480 (1991).
28. Beam Tests of the D-Zero Uranium Liquid Argon End Calorimeters, the D-Zero collaboration, NIM, **A324**, 53 (1993).
29. The D0 Detector, S. Abachi, et al., NIM, **A338**, 185 (1994).
30. First Generation Leptoquark Search in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8\text{TeV}$ , S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **72**, 965 (1994).
31. Search for the Top Quark in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8\text{ TeV}$ , S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **72**, 2138 (1994).
32. Rapidity Gaps between Jets in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8\text{ TeV}$ , S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **72**, 2332 (1994).
33. Search for High Mass Top Quark Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8\text{ TeV}$ , S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **74**, 2422 (1995).
34. Observation of the Top Quark, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **74**, 2632 (1995).
35. Inclusive  $\mu$  and b-quark Production Cross Sections in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8\text{ TeV}$ , S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **74**, 3548 (1995).

36. Search for Squarks and Gluinos in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 618 (1995).
37. Search for W boson pair production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 1023 (1995).
38. Limits on the anomalous  $ZZ\gamma$  and  $Z\gamma\gamma$  couplings in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 1028 (1995).
39. Measurement of the  $WW\gamma$  gauge boson couplings at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 1034 (1995).
40. W and Z boson Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 1456 (1995).
41. Transverse Energy Distributions within Jets in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Lett. B, **357**, 500 (1995).
42. Search for Heavy W Bosons in 1.8 TeV  $p\bar{p}$  Collisions, S. Abachi, et al., (The D0 Collaboration), Phys. Lett. B, **358**, 405 (1995).
43. A Study of the Strong Coupling Constant using W + Jet Processes, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 3226 (1995).
44. Top Quark Search with the D0 1992-93 Data Sample, S. Abachi, et al., (The D0 Collaboration), Physical Review D, **52**, 4877 (1995).
45. Second generation leptoquark search in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **75**, 3618 (1995).
46. Jet Production via Strongly-Interacting Color-Singlet Exchange in  $p\bar{p}$  Collisions, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett. **76**, 734 (1996).
47.  $J/\psi$  Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Physics Letters B, **370**, 239 (1996).
48. Search for Light Top Squarks  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **76**, 2222 (1996).
49. Search for  $W_1 Z_2$  Production via Trilepton Final States in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **76**, 2228 (1996).
50. Search for Right-handed W Bosons and Heavy  $W'$  in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **76**, 3271 (1996).
51. Studies of Topological Distributions of Inclusive Three- and Four-Jet Events in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1800$  GeV with the D0 Detector, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. D, **53**, 6000 (1996).
52. The Azimuthal Decorrelation of Jets Widely Separated in Rapidity, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **77**, 595 (1996).
53. Search for anomalous  $WW/WZ$  to electron plus jets production, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **77**, 3303 (1996).
54. Measurement of the W Boson Mass, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **77**, 3309 (1996).
55. Search for Additional Neutral Gauge Bosons, S. Abachi, et al., (The D0 Collaboration), Physics Letters B, **385**, 471 (1996).
56. The Isolated Photon Cross Section in the Central and Forward Rapidity Regions in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **77**, 5011 (1996).
57. Search for Diphoton Events with Large Missing Transverse Energy in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **78**, 2070 (1997).
58. 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., (The D0 Collaboration), Phys. Rev. Lett., **78**, 3634 (1997).
59. Study of the  $ZZ\gamma$  and  $Z\gamma\gamma$  Couplings in  $Z(\nu\nu)\gamma$  Production, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **78**, 3640 (1997).
60. Search for a Fourth Generation Charge -1/3 Quark via Flavor Changing Neutral Current Decay, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **78**, 3818 (1997).
61. Direct Measurement of the Top Quark Mass, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **79**, 1197 (1997).

62. Measurement of the Top Quark Pair Production Cross Section at  $\sqrt{s} = 1.8$  TeV, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. Lett., **79**, 1203 (1997).
63. Limits on  $WWZ$  and  $WW\gamma$  Couplings from  $p\bar{p} \rightarrow evjjX$  Events at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **79**, 1441 (1997).
64. Studies of Gauge Boson Pair Production and Trilinear Couplings, S. Abachi, et al., (The D0 Collaboration), Phys. Rev. D, **56**, 6742 (1997).
65. Search for Scalar Leptoquark Pairs Decaying to Electrons and Jets in  $p\bar{p}$  Collisions, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **79**, 4321 (1997).
66. Scintillation Counters for the D0 Muon Upgrade, B.S. Acharya, et al., Nucl. Instr. and Methods A **401**, 45 (1997).
67. Color Coherent Radiation in Multijet Events from  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Physics Letters **B414**, 419 (1997).
68. Search for Top Squark Pair Production in the Dielectron Channel, S. Abachi, et al., (The D0 Collaboration), Phys. Rev D **57**, 589 (1998).
69. Experimental Search for Chargino and Neutralino Production in Supersymmetry Models with a Light Gravitino, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 442 (1998).
70. Measurement of Dijet Angular Acceptance and Search for Quark Compositeness, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 666 (1998).
71. Search for the Trilepton Signature from the Associated Gaugino Pair Production, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 1591 (1998).
72. Search for First Generation Scalar Leptoquark Pairs in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 2051 (1998).
73. Measurement of the Top Quark Mass using Dilepton Events, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 2063 (1998).
74. A Measurement of the W Boson Mass at the Fermilab  $p\bar{p}$  Collider, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **80**, 3008 (1998).
75.  $Z\gamma$  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., (The D0 Collaboration), Phys. Rev D **57**, R3817 (1998).
76. Search for  $b \rightarrow X_s\mu\mu$  and  $B^0 \rightarrow \mu\mu$  Decays, B. Abbott, et al., (The D0 Collaboration), Phys. Lett. **B423**, 419 (1998).
77. 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., (The D0 Collaboration), Phys. Rev. Lett., **80**, 5498 (1998).
78. Determination of the mass of the W boson using the D0 detector at the Fermilab Tevatron, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **58**, 12002 (1998).
79. Search for charge-1/3 third-generation leptoquark in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **81**, 38 (1998).
80. Search for Heavy Pointlike Dirac Monopoles, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **81**, 524 (1998).
81. Limits on anomalous  $WW\gamma$  and  $WWZ$  couplings, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D. **58**, 31102 (1998).
82. Limits on  $WW\gamma$  and  $WWZ$  couplings from W boson pair production, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D. **58**, 51101 (1998).
83. Direct Measurement of the Top Quark Mass at D0, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D. **58**, 52001 (1998).
84. Measurement of the W boson mass, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **58**, 92003 (1998).
85. Probing Hard Color-Singlet Exchange in  $p\bar{p}$  Collisions at  $\sqrt{s} = 630$  GeV and 1800 GeV, B. Abbott, et al., (The D0 Collaboration), Phys. Lett. B **440**, 189 (1998).
86. Forward muon system for the D0 detector upgrade, V. Abramov et al., NIM **A419**, 660 (1998).
87. Search for Squarks and Gluinos in Single-Photon Events with Jets and Large Missing Transverse Energy in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 29 (1999).

88. Small Angle  $J/\psi$  Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 35 (1999).
89. 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., (The D0 Collaboration), Phys. Rev. Lett., **82**, 2244 (1999).
90. The Inclusive Jet Cross Section in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 2451 (1999).
91. Search for Quark Compositeness using the Dijet Mass Spectrum in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 2457 (1999).
92. Determination of the Absolute Jet Energy Scale in the D0 Calorimeters, B. Abbott et al., (The D0 Collaboration), Nucl. Instrum. and Methods A 424, 352 (1999).
93. Search for Charged Higgs Bosons in Decays of Top Quark Pairs, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 4975 (1999).
94. Measurement of the High-Mass Drell-Yan Cross Section and Limits on Quark-Electron Compositeness Scales, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **82**, 5286 (1999).
95. Measurement of the top quark pair production in  $p\bar{p}$  collisions using multijet final states, B. Abbott, et al., (The D0 Collaboration), PRD **60**, 012001 (1999).
96. Search for bottom squarks in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), PRD **60**, 031101 (1999).
97. Measurement of the Top Quark Mass in the Dilepton Channel, B. Abbott, et al., (The D0 Collaboration), PRD **60**, 052001 (1999).
98. Measurement of the W and Z boson production cross sections in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), PRD **60**, 052003 (1999).
99. Measurement of the top quark pair production cross section using the all jets decay channel, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **83**, 1908 (1999).
100. Studies of WW and WZ Production and Limits on Anomalous  $WW\gamma$  and WWZ couplings, B. Abbott, et al., (The D0 Collaboration), PRD **60**, 072002 (1999).
101. Search for second generation leptoquark pairs decaying to  $\mu\nu + jets$  in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **83**, 2896 (1999).
102. Evidence of Color Coherence Effects in W + jets Events from  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Lett. B, **464**, 145 (1999).
103. Search for R-Parity Violating Supersymmetry in the Dielectron Channel, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **83**, 4476 (1999).
104. Search for Squarks and Gluinos in Events Containing Jets and a Large Imbalance in Transverse Energy, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett., **83**, 4937 (1999).
105. Fast scintillation counters for the D0 muon system upgrade, V. Abramov et al., IEEE Transactions of Nuclear Science, **46**, 865 (1999).
106. Measurement of the Inclusive Differential Cross Section for Z Bosons as a Function of Transverse Momentum in  $p\bar{p}$  Collisions at 1.8 TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D, **61**, 032004 (2000).
107. Measurement of the W Boson Mass using electrons at large rapidity, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **84**, 222 (2000).
108. Search for second generation leptoquarks in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **84**, 2088 (2000).
109. Extraction of the width of the W boson from measurements of  $\sigma(p\bar{p} \rightarrow W+X) \times B(W \rightarrow e\nu)$  and  $\sigma(p\bar{p} \rightarrow Z+X) \times B(Z \rightarrow ee)$  and their ratio, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D, **61**, 072001 (2000).
110. Isolated Photon Cross Section in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **84**, 2786 (2000).
111. Differential Cross Section for the production of Z Bosons as a Function of Transverse Momentum in  $p\bar{p}$  Collisions at 1.8 TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **84**, 2792 (2000).

112. Limits on quark compositeness from high energy jets in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), PRD Rapid Communication **62**, 31101 (2000).
113. Small angle muon and b quark production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **84**, 5478 (2000).
114. Measurement of the  $W \rightarrow \tau\nu$  Production Cross Section in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett **84**, 5710 (2000).
115. Probing Balitsky-Fadin-Kuraev-Lipatov Dynamics in the Dijet Cross Section at Large Rapidity Intervals in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1800$  and 630 GeV, B. Abbott, et al., D0 Collaboration), Phys. Rev. Lett **84**, 5722 (2000).
116. Spin Correlations in  $t\bar{t}$  Production from  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett **85**, 256 (2000).
117. 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., (The D0 Collaboration), Phys. Lett. **B487**, 264 (2000).
118. Limits on anomalous  $WW\gamma$  and  $WWZ$  couplings from  $WW/WZ \rightarrow e\nu jj$  production, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **62**, 52005 (2000).
119. Search for R-Parity Violation in multilepton finalstates in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D**62**, 71701 (2000).
120. Measurement of the W boson mass using large rapidity electrons, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **62**, 92006 (2000).
121. Search for New Physics in  $e\mu X$  Data at D0 using Sleuth: A Quasi-Model-Independent Search Strategy for New Physics, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **62**, 92004 (2000).
122. Cross section for b jet production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **85**, 5068 (2000).
123. Search for Large Extra Dimensions in Dielectron and Diphoton Production, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **86**, 1156 (2001).
124. Search for Electroweak Production of Single Top Quarks in  $p\bar{p}$  Collisions, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D **63**, 31101 (2001).
125. Inclusive jet production in  $p\bar{p}$  collisions, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **86**, 1707 (2001).
126. Ratios of multijet cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **86**, 1955 (2001).
127. Measurement of the angular distribution of electrons in  $W \rightarrow e\nu$  decays in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D**63**, 072001 (2001).
128. Ratio of jet cross sections at  $\sqrt{s} = 630$  GeV and 1800 GeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **86**, 2523 (2001).
129. A quasi-model independent search for new high  $p_T$  physics at D0, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. Lett. **86**, 3712 (2001).
130. Search for dilepton signatures from minimal low energy supergravity in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D**63**, 091102 (2001).
131. A quasi-model independent search for new high  $p_T$  physics at D0, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D**64**, 012004 (2001).
132. High  $p_T$  jets in  $p\bar{p}$  Collisions at 630 and 1800 GeV, B. Abbott, et al., (The D0 Collaboration), Phys. Rev. D**64**, 032003 (2001).
133. Search for heavy particles decaying into electron-positron pairs in  $p\bar{p}$  collisions, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. **87**, 061802 (2001).
134. 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., (The D0 Collaboration), Phys. Lett. **B 513**, 292 (2001).
135. Search for single top quark production at D0 using neural networks, V. Abazov, et al., (The D0 Collaboration), Phys. Lett. **B517**, 282 (2001).

136. Search for First-Generation Scalar and Vector Leptoquarks, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. D64, 092004 (2001).
137. Measurement of the ratio of differential cross sections for W and Z boson production as a function of transverse momenta in  $p\bar{p}$  collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov, et al., (The D0 Collaboration), Phys. Lett. B517, 299 (2001).
138. Search for New Physics Using Quero: A General Interface to D0 Event Data, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. 87, 231801 (2001).
139. The ratio of isolated photon cross sections at  $\sqrt{s}= 630$  and 1800 GeV, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. 87, 251805 (2001).
140. Subjet multiplicty of gluon and quark jets reconstructed using the kT algorithm in  $p\bar{p}$  collisions, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. D65, 052008 (2002).
141. The Inclusive Jet Cross Section in  $p\bar{p}$  Collisions at  $\sqrt{s}=1.8$  TeV using the  $K_T$  Algorithm, V. Abazov, et al., (The D0 Collaboration), Phys. Lett. B525, 211 (2002).
142. Search for R-parity Violating Supersymmetry in Dimuon and Four-Jet Channel, V. Abazov et al., Phys. Rev. Lett. 89 171801 (2002).
143. Search for Leptoquark Pairs Decaying to  $n\nu+J$ ets in  $p\bar{p}$  Collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al. Phys. Rev. Lett. 88, 191801 (2002).
144. A direct measurement of the W boson decay width, V. Abazov et al, Phys. Rev. D 66, 032008 (2002).
145. Improved W boson mass measurement with the D0 detector, V. Abazov et al, Phys. Rev. D 66, 012001 (2002).
146. Search for mSUGRA in single-electron events with jets and large missing transverse energy in  $p\bar{p}$  Collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al., Phys. Rev. D 66, 112001 (2002).
147. A search for the scalar top quark in  $p\bar{p}$  Collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. 88, 171805 (2002).
148. Search for the production of single sleptons through R-parity violation in  $p\bar{p}$  Collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. 89, 261801 (2002).
149.  $t\bar{t}$  production cross section in  $p\bar{p}$  collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al, Phys. Rev. D67, 012004 (2003).
150. . Multiple jet production at low transverse energies in  $p\bar{p}$  collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al, Phys. Rev. D67, 05201 (2003).
151. Search for large extra dimensions in the monojet+MET channel with the D0 detector, V. Abazov, et al., (The D0 Collaboration), Phys. Rev. Lett. 90, 251802 (2003).
152. Convection-type LH2 absorber R+D for muon ionization cooling, S. Ishimoto, et al., NIM, A503, 396 (2003).
153. Current LH2 absorber R+D in MUCOOL, M.A.C. Cummings, et al., J. Phys. G29, 1689 (2003).
154. Observation of diffractively produced W and Z Bosons in  $p\bar{p}$  collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al, Phys. Lett. B 574, 169 (2003).
155. Search for 3- and 4- Body decays of the scalar top quark in  $p\bar{p}$  collisions at  $\sqrt{s}=1.8$  TeV, V. Abazov et al, Phys. Lett. B 581, 147 (2004).
156. 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).
157. 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).
158. Search for New Particles in the Two-Jet Decay Channel with the D0 Detector, V. M. Abazov et al., Phys. Rev. D Rapid Comm. **69**, 111101 (2004).
159. Improved Measurement of the Top Quark Mass, V. M. Abazov et al., Nature **429**, 638 (2004).
160. Combination of CDF and D0 results on W boson mass and width, V. M. Abazov et al., Phys. Rev. D **70**, 092008 (2004).
161. Observation and Properties of the  $X(3872)$  Decaying to  $J/\psi$  in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov et al., Phys. Rev. Lett. **93**, 162004 (2004).

162. Search for Doubly-charged Higgs Boson Production in the Decay  $H^{++}H^{--} \rightarrow \mu\mu\mu\mu$  with the D0 Detector at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov et al., Phys. Rev. Lett **93**, 141801 (2004).
163. Measurement of the top quark mass in all jet events, V.M. Abazov et al, Phys. Lett. B. 606, 25 (2005).
164. The Muon System of the Run II D0 Detector, V.M. Abazov et al., NIM A 552, 372-398 (2005).
165. Helicity of the W boson in  $t\bar{t}$  events, V.M. Abazov et al, Phys. Lett. B 617, 1 (2005).
166. 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, Phys. Rev. Lett. **93**, 162004 (2004).
167. Search for Supersymmetry with Gauge-Mediated Breaking in Diphoton Events at D0, V. M. Abazov et al, Phys. Rev. Lett. **94**, 041801 (2005).
168. 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).
169. 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).
170. 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).
171. Measurement of the Ratio of  $B^+$  and  $B_0$  Lifetimes, V. M. Abazov et al, Phys. Rev. Lett. **94**, 182001 (2005).
172. Measurement of the  $\Lambda_b$  Lifetime in the Decay  $\Lambda_b \rightarrow J/\psi\Lambda$  with the D0 Detector, V. M. Abazov et al, Phys. Rev. Lett. **94** 102001 (2005).
173. A Search for  $Wb\bar{b}$  and  $WH$  Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  Te, V. M. Abazov et al, Phys. Rev. Lett. **94** 091802 (2005).
174. 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).
175. 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).
176. A search for anomalous heavy-flavor quark production in association with W bosons, V. M. Abazov et al, Phys. Rev. Lett. **94**, 152002 (2005).
177. 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).
178. 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(2005).
179. 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).
180. 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., **232001** (2005).
181. 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).
182. 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).
183. 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).
184. 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).
185. 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).
186. 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).

187. Search for Randall-Sundrum Gravitons in Dilepton and Diphoton Final States, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 091801 (2005).
188. Search for right-handed W bosons in top quark decay, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm **72**, 011104 (R) (2005).
189. 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).
190. 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).
191. Search for large extra spatial dimensions in dimuon production at D0, V. M. Abazov *et al.*, Phys. Rev. Lett. **95** 161602 (2005).
192. Measurement of semileptonic branching fractions of B mesons to narrow  $D^{**}$  states, V. M. Abazov *et al.*, Phys. Rev. Lett. **95** 171803 (2005).
193. Measurement of the lifetime difference in the  $B_s$  system, V. M. Abazov *et al.*, Phys. Rev. Lett. **95**, 171801 (2005).
194. Search for the Higgs Boson in  $H \rightarrow WW^{(*)}$  Decays in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **96** 011801 (2006).
195. Search for the 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).
196. 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).
197. Search for excited muons in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm, **73**, 111102 (2006).
198. 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).
199. Direct limits on the  $B_s^0$  oscillation frequency, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 021802 (2006).
200. Search for the rare decay  $B_s^0 \rightarrow \phi + \mu^+ + \mu^-$  with the D0 detector, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm, **74**, 031107 (2006).
201. Search for particles decaying to a Z Boson and a photon in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Lett. B **641**, 415 (2006).
202. Search for R-parity violating supersymmetry via the LLE couplings  $\Lambda_{121}$ ,  $\Lambda_{121}^*$ , or  $\Lambda_{121}^{\dagger}$  in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Lett. B **638**, 441 (2006).
203. Search for scalar leptoquarks in the acoplaner jet topology, V. M. Abazov *et al.*, Phys. Lett. B **640**, 230 (2006).
204. Search for the W' decay in the top quark channel, V. M. Abazov *et al.*, Phys. Lett. B **641**, 423 (2006).
205. 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).
206. Search for resonant second generation slepton production at the Tevatron, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 111801 (2006).
207. Search for neutral long lived particles decaying to two muons in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 161802 (2006).
208. Search for associated Higgs Boson production  $Wh \rightarrow WWW^* \rightarrow l^{\pm}l^{\pm} + X$  in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 151804 (2006).
209. Search for the pair production of scalar bottom quarks in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 171806 (2006).
210. Search for the standard model Higgs boson in the  $p\bar{p} \rightarrow ZH \rightarrow \nu\bar{\nu}b\bar{b}$  channel, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 161803 (2006).
211. Search for a heavy resonance decaying into a Z+jet final states in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV using the D0 detector, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm. **74**, 100104 (2006).
212. 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).

213. Measurement of  $B(t \rightarrow bW)/B(t \rightarrow qW)$  at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Lett. B **639**, 616 (2006).
214. A Precise Measurement of the  $B_s^0$  Lifetime using Semileptonic Decays, V. M. Abazov *et al.*, Phys. Rev. Lett. **97**, 241801 (2006).
215. Measurement of the CP-violating parameters of  $B^0$  mixing and decay in the  $p\bar{p} \rightarrow \mu\mu X$  data, V. M. Abazov *et al.*, Phys. Rev. D **74**, 092001 (2006).
216. Measurement of  $B_d$  Mixing Using Opposite-side Flavor Tagging, V. M. Abazov *et al.*, Phys. Rev. D **74**, 172002 (2006).
217. Measurement of the top quark mass in the lepton+jets final state with the matrix element method, V. M. Abazov *et al.*, Phys. Rev. D **74**, 092005 (2006).
218. Measurement of the  $t\bar{t}$  cross section in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV using secondary vertex b-tagging, V. M. Abazov *et al.*, Phys. Rev. D **74**, 112004 (2006).
219. The Upgraded D0 Detector, V. M. Abazov *et al.*, Nucl. Instr. Meth. A **565**, 463 (2006).
220. Measurement of the W boson helicity in top quark decay at D0, V. M. Abazov *et al.*, Phys. Rev. D Rap. Comm. **75**, 031102(R) (2007).
221. Measurement of the top quark mass in the dilepton channel, V. M. Abazov *et al.*, Phys. Lett. B **645**, 7 (2007).
222. Search for the pair production of scalar top quarks in the acoplaner charm jet final state in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Lett. B **645**, 119 (2007).
223. Search for single production of scalar leptoquarks decaying into muons and quarks, V. M. Abazov *et al.*, Phys. Lett. B **647**, 74 (2007).
224. Measurement of the  $p\bar{p} \rightarrow t\bar{t}$  production cross section at  $\sqrt{s} = 1.96$  TeV in the fully hadronic channel, V. M. Abazov *et al.*, Phys. Rev. D **76**, 072007 (2007).
225. Search for Techniparticles Decaying into  $e + jets$  at D0, V. M. Abazov *et al.*, Phys. Rev. Lett. **98**, 221801 (2007).
226. Evidence for the production of single top quarks and first direct measurement of  $|V_{tb}|$ , V. M. Abazov *et al.*, Phys. Rev. Lett. **98**, 181802 (2007).
227. Measurement of the charge asymmetry in semileptonic  $B_s$  decays, V. M. Abazov *et al.*, Phys. Rev. Lett. **98**, 151801 (2007).
228. Lifetime difference and CP-violating phase in the  $B_s$  system, V. M. Abazov *et al.*, Phys. Rev. Lett. **98**, 121801 (2007).
229. Search for the production of single top quarks via tgc and tug flavor-changing neutral currents, V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 191802 (2007).
230. Measurement of the top quark mass in the lepton+jets channel using the Ideogram Method, V. M. Abazov *et al.*, Phys. Rev. D **75**, 092001 (2007).
231. Measurement of the shape of the boson rapidity distribution for  $p\bar{p} \rightarrow Z/\gamma^* \rightarrow eeX$ , V. M. Abazov *et al.*, Phys. Rev. D **76**, 012003 (2007).
232. Combined D0 measurement constraining CP-violating phase and width difference in the  $B_s$  system, V. M. Abazov *et al.*, Phys. Rev. D **76**, 057101 (2007).
233. Search for the Higgs boson produced in association with a Z boson, V. M. Abazov *et al.*, Phys. Lett. B **655**, 209 (2007).
234. Measurement of the  $\Lambda_b$  lifetime in the exclusive decay  $\Lambda_b \rightarrow J/\psi\Lambda$ , V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 142001 (2007).
235. Search for stopped gluinos from  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 131801 (2007).
236. Search for third generations leptoquarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 061801 (2007).
237.  $Z\gamma$  production 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. B **653**, 378 (2007).
238. Measurement of the  $t\bar{t}$  production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV using kinematic characteristics of lepton+jets events, V. M. Abazov *et al.*, Phys. Rev. D **76**, 092007 (2007).
239. Properties of L=1  $B_1$  and  $B_2^*$  mesons, V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 172001 (2007).

240. Measurement of the  $t\bar{t}$  production cross section in  $p\bar{p}$  collisions using dilepton events, V. M. Abazov *et al.*, Phys. Rev. D **76**, 052006 (2007).
241. Direct observatyon of the stange b baryone  $\chi_b^-$ , V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 052001 (2007).
242. Measurement of the  $\Lambda_b$  lifetime in semileptonic decays, V. M. Abazov *et al.*, Phys. Rev. Lett. **99**, 182001 (2007).
243. Search for  $B_s^0 \rightarrow \mu^+\mu^-$  at D0, V. M. Abazov *et al.*, Phys. Rev. D **76**, 092001 (2007).
244. V. M. Abazov *et al.*, Search for the lightest scalar top quark in events with two leptons in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$ -TeV, V. M. Abazov *et al.*, Phys. Lett. B **659**, 500 (2008).
245. V. M. Abazov *et al.*, Measurement of the muon charge asymmetry from W boson decays Phys. Rev. D **77**, R011106 (2008).
246. V. M. Abazov *et al.*, Search for Randall-Sundrum Gravitons with 1 fb-1 of Data from ppbar Collisions at sqrt(s)=1.96 TeV Phys. Rev Lett. **100**, 091802 (2008).
247. V. M. Abazov *et al.*, Search for W' bosons decaying to an electron and a neutrino with the D0 detector Phys. Rev Lett. **100**, 031804 (2008).
248. V. M. Abazov *et al.*, Search for Supersymmetry in Di-photon Final States at sqrt(s)=1.96 TeV Phys. Lett. B **659**, 856 (2008).
249. V. M. Abazov *et al.*, Model-independent measurement of the W boson helicity in top quark decays at D0 Phys. Rev. Lett. **100**, 062004 (2008).
250. V. M. Abazov *et al.*, Observation and Properties of the Orbitally Excited Bs2\* Meson Phys. Rev. Lett. **100**, 082002 (2008).
251. V. M. Abazov *et al.*, Search for flavor-changing-neutral-current D meson decays Phys. Rev. Lett. **100**, 101801 (2008).
252. V. M. Abazov *et al.*, Search for ZZ and  $Z\gamma^*$  production in  $p\bar{p}$  collisions at sqrt(s)=1.96 TeV and limits on anomalous ZZZ and  $ZZ\gamma^*$  couplings Phys. Rev. Lett. **100**, 131801 (2008).
253. V. M. Abazov *et al.*, Measurement of the shape of the boson transverse momentum distribution in  $p\bar{p} \rightarrow Z/\gamma^* \rightarrow e^+e^- + X$  events produced at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. **100**, 102002 (2008).
254. V. M. Abazov *et al.*, A combined search for the standard model Higgs boson at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B **663**, 26 (2008).
255. V. M. Abazov *et al.*, First measurement of the forward-backward charge asymmetry in top quark pair production, Phys. Rev. Lett. **100**, 142002 (2008).
256. V. M. Abazov *et al.*, Search for Squark and Gluinos in Events with Jets and Missing Transverse Energy using 2.1  $fb^{-1}$  of  $p\bar{p}$  Collision Data at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B, **660**, 449 (2008).
257. V. M. Abazov *et al.*, Simultaneous Measurement of the Ratio B(t to WB)/ B(t to Wq) and the Top Quark Pair Production Cross Section with the D0 Detector at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. **100**, 192003 (2008).
258. V. M. Abazov *et al.*, Search for Excited Electrons in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D Rapid Comm. **77**, 091102 (2008).
259. V. M. Abazov *et al.*, Search for scalar neutrino superpartners in  $e + \mu$  final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. **100**, 241803 (2008).
260. V. M. Abazov *et al.*, Measurement of the inclusive jet cross section in  $p\bar{p}$  scattering at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. **101**, 062001 (2008).
261. V. M. Abazov *et al.*, Study of direct CP violation in  $B^+ \rightarrow J/\psi K^{+-}(\pi^{+-})$  decays, Phys. Rev. Lett. **100**, 211802 (2008).
262. V. M. Abazov *et al.*, Observation of the  $B_c$  meson in the exclusive decay  $B_c \rightarrow J/\psi\pi$ , Phys. Rev. Lett. **101**, 012001 (2008).
263. V. M. Abazov *et al.*, First study of the radiation-amplitude zero in Wgamma production and limits on anomalous WWgamma couplings at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. **100**, 241805 (2008).
264. V. M. Abazov *et al.*, Evidence for production of single top quarks, Phys. Rev. D **78**, 012005 (2008).

265. V. M. Abazov *et al.*, Search for pair production of doubly-charged Higgs bosons in the  $H^{++}H^{--}$  to  $\mu^+\mu^+\mu^-\mu^-$  final state, Phys. Rev. Lett. 101, 071803 (2008).
266. V. M. Abazov *et al.*, Search for the decay of a fermi-phobic Higgs boson  $h_f$  to  $\gamma + \gamma$  with the D0 detector at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 051801 (2008).
267. V. M. Abazov *et al.*, Search for Scalar Top Quarks in the Acoplanar Charm Jets and Missing Transverse Energy Final State in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 665, 1 (2008).
268. V. M. Abazov *et al.*, Measurement of the ratio of the  $p\bar{p} \rightarrow W + c - jet$  cross section to the inclusive  $p\bar{p} \rightarrow W + jets$  cross section, Phys. Lett. B 666, 23 (2008).
269. V. M. Abazov *et al.*, Search for Large Extra Dimensions in the Mono-photon Final State at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 011601 (2008).
270. V. M. Abazov *et al.*, Search for W' boson resonances decaying to a top quark and a bottom quark, Phys. Rev. Lett. 100, 211803 (2008).
271. V. M. Abazov *et al.*, Measurement of the differential cross section for the production of an isolated photon with associated jet in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 666, 435 (2008).
272. V. M. Abazov *et al.*, Measurement of  $t\bar{t}$  production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. (100), 192004 (2008).
273. V. M. Abazov *et al.*, Search for Higgs bosons decaying to tau pairs in  $p\bar{p}$  collisions with the D0 detector, Phys. Rev. Lett. 101, 071804 (2008).
274. A. Dyshkant, G. Blazey, K. Francis, D. Hedin, V. Zutshi, H. Fisk, C. Milstene, and R. Abrams, MAPMT H7546B anode current response study for ILC SiD muon system prototype, IEEE Trans. Nucl. Sci., **55**, 1691 (2008).
275. V. M. Abazov *et al.*, Search for long-lived particles decaying into electron or photon pairs with the D0 detector, Phys. Rev. Lett. 101, 111802 (2008).
276. V. M. Abazov *et al.*, Measurement of the ratios of the  $Z/\gamma^* + \geq n jet$  production cross sections to the total inclusive  $Z/\gamma^*$  cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 658, 112 (2008).
277. V. M. Abazov *et al.*, Observation of ZZ production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 171803, (2008).
278. V. M. Abazov *et al.*, Search for  $t\bar{t}$  resonances in the lepton plus jets final state in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 668, 98 (2008).
279. V. M. Abazov *et al.*, Search for scalar leptoquarks and T-odd quarks in the acoplanar jet topology using  $2.5 \text{ fb}^{-1}$  of  $p\bar{p}$  collision data at  $\sqrt{s} = 1.96$  TeV, Physics Letters B 668, 357 (2008).
280. V. M. Abazov *et al.*,  $ZZ \rightarrow ll\nu\nu$  production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 78, 072002 (2008).
281. V. M. Abazov *et al.*, Measurement of  $Z/\gamma + jet + X$  cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 669, 278 (2008).
282. V. M. Abazov *et al.*, Measurement of the  $v(1S)$  and  $v(2S)$  states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 182004 (2008).
283. V. M. Abazov *et al.*, Precise measurements of the top quark mass from lepton+jet events, Phys. Rev. Lett. 101, 182001 (2008).
284. V. M. Abazov *et al.*, Measurement of the forward-backward charge asymmetry and extraction of  $\sin^2\theta_W$  in  $p\bar{p} \rightarrow Z/\gamma^*$  events produced at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 191801 (2008).
285. V. M. Abazov *et al.*, Measurement of the electron charge asymmetry in  $p\bar{p} \rightarrow W + X$  events at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 211801 (2008).
286. V. M. Abazov *et al.*, Search for anomalous Wtb couplings in single top quark production, Phys. Rev. Lett. 101, 221801 (2008).
287. V. M. Abazov *et al.*, Search for neutral Higgs bosons in multi-b-jet events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 221802 (2008).
288. V. M. Abazov *et al.*, Observation of the doubly strange b baryon  $\Omega_b$ , Phys. Rev. Lett. 101, 232002 (2008).

289. V. M. Abazov *et al.*, Measurement of the  $B_s^0$  mixing parameters from the flavor-tagged decay  $B_S \rightarrow J/\psi\phi$ , Phys. Rev. Lett. 101, 241801 (2008).
290. V. M. Abazov *et al.*, Search for third generation scalar leptoquarks decaying into  $\tau b$ , Phys. Rev. Lett. 101, 241802 (2008).
291. V. M. Abazov *et al.*, Search for the standard model Higgs boson in the missing energy and acoplaner jet topology at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 101, 251802 (2008).
292. V. M. Abazov *et al.*, Search for long-lived charged massive particles with the D0 detector, Phys. Rev. Lett. 102, 161802 (2009).
293. Design and Electronics Commissioning of the Physics Prototype of a Si-W Electromagnetic Calorimeter for the International Linear Collider, The CALICE Collaboration, J. Repond *et al.*, JINST 3:P08001 (2008).
294. Response of the CALICE Si-W Electromagnetic Calorimeter Physics Prototype to Electrons, The CALICE Collaboration, C. Adloff *et al.*, J.Phys.Conf.Ser.160:012065 (2009).
295. Directly Coupled Tiles as Elements of a Scintillator Calorimeter with MPPC Readout, G. Blazey, D. Chakraborty, A. Dychkant, K. Francis, D. Hedin, J. Hill, G. Lima, J. Powell, P. Salcido, V. Zutshi, M. emarteau, P. Rubinov, and N. Pohlman, NIM A 605, 277 (2009).
296. V. M. Abazov *et al.*, Measurement of the angular and lifetime parameters of the decays  $B_d \rightarrow J/\psi K^{*0}$  and  $B_s \rightarrow J/\psi\phi$ , Phys. Rev. Lett. 102, 023001 (2009).
297. V. M. Abazov *et al.*, Measurement of the semileptonic branching fraction of  $B_s$  to an orbitally excited  $D_s^{**}$  state, Phys. Rev. Lett. 102, 051801 (2009).
298. V. M. Abazov *et al.*, Search for associated W and Higgs boson production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 102, 051803 (2009).
299. V. M. Abazov *et al.*, Search for large extra spatial dimensions in dielectron and diphoton channels in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 102, 051601 (2009).
300. V. M. Abazov *et al.*, Search for neutral Higgs bosons at high  $\tan\beta$  in the  $b(h/H/A) \rightarrow \tau\tau$  channel, Phys. Rev. Lett. 102, 051804 (2009).
301. V. M. Abazov *et al.*, Measurement of the lifetime of the  $B_c$  meson in the semileptonic decay channel, Phys. Rev. Lett. 102, 092001 (2009).
302. V. M. Abazov *et al.*, Evidence for the decay  $B_s \rightarrow D_s^* D_s^*$  and a measurement of  $\Delta\Lambda_s^{CP}/\Lambda_s$ , Phys. Rev. Lett. 102, 091801 (2009).
303. V. M. Abazov *et al.*, Search for anomolous top-quark couplings with the D0 detector, Phys. Rev. Lett. 102, 092002 (2009).
304. V. M. Abazov *et al.*, Search for the lightest scalar top quark in events with two leptons in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 675, 289 (2009).
305. V. M. Abazov *et al.*, Evidence of WW and WZ production with lepton+jets final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 102, 161801 (2009).
306. V. M. Abazov *et al.*, Measurement of  $\gamma + b + X$  and  $\gamma + c + X$  production cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 102, 192002 (2009).
307. V. M. Abazov *et al.*, Search for charged Higgs bosons decaying into top and bottom quarks channels in  $p\bar{p}$  collisions, Phys. Rev. Lett. 102, 191802 (2009).
308. V. M. Abazov *et al.*, Search of the  $Z\gamma \rightarrow \nu\nu\gamma$  production cross section and limits on the anomalous  $ZZ\gamma$  and  $Z\gamma\gamma$  couplings in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 102, 201802 (2009).
309. V. M. Abazov *et al.*, Realtive rates of B meson decays into  $\psi(2S)$  and  $J/\psi$ , Phys. Rev. D 79, 111102(R) (2009).
310. V. M. Abazov *et al.*, Measurement of differential cross sections of  $Z/\gamma + jets + X$  events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 45, 678 (2009).
311. V. M. Abazov *et al.*, Search for resonant diphoton production with the D0 detector, Phys. Rev. Lett. 102, 231801 (2009).
312. V. M. Abazov *et al.*, Search for the standard model Higgs boson in tau final states, Phys. Rev. Lett. 102, 251801 (2009).
313. V. M. Abazov *et al.*, Search for next-to-minimal supersymmetric Higgs bosons in the  $h \rightarrow aa \rightarrow \mu\mu\mu\mu, \mu\mu\tau\tau$  final states using  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 103, 191802 (2009).

314. V. M. Abazov *et al.*, Search for resonant pair production in long lived particles devaying to  $b\bar{b}$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 103, 191802 (2009).
315. V. M. Abazov *et al.*, Search for dark photons from supersymmetric hidden valleys, Phys. Rev. Lett. 103, 081802 (2009).
316. V. M. Abazov *et al.*, Observation of Single Top-Quark Production, Phys. Rev. Lett. 103, 092001 (2009).
317. V. M. Abazov *et al.*, A Novel Method for Modeling the Recoil Energy in W Boson Events at Hadron Colliders, Nucl. Instrum. Methods in Phys. Res. A 609, 250 (2009).
318. V. M. Abazov *et al.*, Direct measurement of the mass difference between top and antitop quarks, Phys. Rev. Lett. 103, 132001 (2009).
319. V. M. Abazov *et al.*, Measurement of trilinear gauge boson couplings from  $WW+WZ \rightarrow lvjj$  events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 80, 053012 (2009).
320. V. M. Abazov *et al.*, Search for charged Higgs bosons in decays of top quarks, Phys. Rev. D 80, 051107 (2009).
321. V. M. Abazov *et al.*, Measurement of the W boson mass, Phys. Rev. Lett. 103, 141801 (2009).
322. V. M. Abazov *et al.*, Search for pair production of first generation leptoquarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 681, 224 (2009).
323. V. M. Abazov *et al.*, Combination of  $t\bar{t}$  cross section measurements and constraints on the mass of the top quarks and its decay into charged Higgs bosons, Phys. Rev. D 80, 071102 (2009).
324. V. M. Abazov *et al.*, Measurement of the WW Production Cross Section with Dilepton Final States in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV and Limits on Trilinear Anamolous Gauge Couplings, Phys. Rev. Lett. 101, 191801 (2009).
325. V. M. Abazov *et al.*, Measurement of dijet angular distributions at  $\sqrt{s} = 1.96$  TeV and searches for quark compositeness and extra spatial dimensions, Phys. Rev. Lett. 103, 191803 (2009).
326. V. M. Abazov *et al.*, Search for charged Higgs bosons in top quark decays, Phys. Lett. B 682, 278 (2009).
327. V. M. Abazov *et al.*, Measurement of  $Z/\gamma^* + jet + X$  angular distributions in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 682 370, 071102 (2009).
328. V. M. Abazov *et al.*, Measurement of the t-channel single top quark production cross section, Phys. Lett. B 682 363, 071102 (2009).
329. V. M. Abazov *et al.*, Measurement of the top quark mass in final states with two leptons, Phys. Rev. D 80, 092006 (2009).
330. V. M. Abazov *et al.*, Direct measurement of the W boson width, Phys. Rev. Lett. 103, 231802 (2009).
331. V. M. Abazov *et al.*, Search for associated production of charginos and netralinos in the trilepton final state using  $2.3 \text{ fb}^{-1}$  of data, Phys. Lett. B 103. 34 (2009).
332. V. M. Abazov *et al.*, Search for squark production in events with jet, hadronically decaying tau leptons, and missing transverse energy at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 680, 24 (2009).
333. V. M. Abazov *et al.*, Measurement of the  $t\bar{t}$  production cross section and top quark mass extraction using dilepton events in  $p\bar{p}$  collisions, Phys. Rev. B 679, 177 (2009).
334. V. M. Abazov *et al.*, Search for admixture of scalar top quarks in the  $t\bar{t}$  lepton plus jets final state at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. B 674, 4 (2009).
335. V. M. Abazov *et al.*, Determination of the strong coupling constatatnt from the inclusive jet cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 80, 111107 (2009).
336. C. Adloff *et al.*, Construction and Commissioning of the CALICE Analog Hadron Calorimeter Prototype, JINST 5, P05004 (2010).
337. T. Aaltonen *et al.*, Combination of Tevatron searches for the standard model Higgs boson in the W+W- decay mode, Phys. Rev. Lett. 104, 061802 (2010).
338. V. M. Abazov *et al.*, Search for Higgs boson production in dilepton and missing energy final states with  $5.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 104, 061804 (2010).

339. V. M. Abazov *et al.*, Search for the standard model Higgs boson in the  $ZH \rightarrow \nu\bar{\nu}b\bar{b}$  channel in  $5.2 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Rev. Lett. 104, 071801 (2010).
340. V. M. Abazov *et al.*, Double parton interactions in photon+3 jet events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Rev. D81, 052012 (2010).
341. V. M. Abazov *et al.*, Search for the associated production of a b quark and a neutral supersymmetric Higgs boson which decays to tau pairs, Phys. Rev. Lett. 104, 151801 (2010).
342. V. M. Abazov *et al.*, Search for a resonance decaying into WZ boson pairs in  $p\bar{p}$  collisions, Phys. Rev. Lett. 104, 061801 (2010).
343. V. M. Abazov *et al.*, Search for single top quarks in the tau+jets channel using  $4.8 \text{ fb}^{-1}$  of  $p\bar{p}$  collision data, Phys. Lett. B 690, 5 (2010).
344. V. M. Abazov *et al.*, Combined measurements of anomalous charged trilinear gauge-boson couplings from diboson production in  $5.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , arXiv:0907.4952 [hep-ex].
345. V. M. Abazov *et al.*, Measurement of Z/gamma\*+jet+X angular distributions in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Lett. B682, 370 (2010).
346. V. M. Abazov *et al.*, Measurement of the t-channel single top quark production cross section, Phys. Lett. B682, 363 (2010).
347. V. M. Abazov *et al.*, Search for CP violation in semileptonic B(s)0 decays, Phys. Rev. D 82, 012003 (2010).
348. Study of the interactions of pions in the CALICE silicon-tungsten calorimeter prototype. C. Adloff *et al.*, JINST 5, 05007 (2010).
349. V. M. Abazov *et al.*, b-jet identification in the D0 experiment, Nucl. Instrum. Methods in Phys. Res. Sect. A 620, 490 (2010).
350. V. M. Abazov *et al.*, Measurement of the direct photon pair production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Lett. B 690, 108 (2010).
351. V. M. Abazov *et al.*, Search for Randall-Sundrum gravitons in the dielectron and diphoton final states from  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Rev. Lett. 104, 241802 (2010).
352. T. Aaltonen *et al.*, Combined tevatron upper limits on  $gg \rightarrow H \rightarrow WW$  and constraints on the Higgs boson in fourth-generation fermion models, Phys. Rev. D 82, 011102 (2010).
353. V. M. Abazov *et al.*, Evidence for an anomalous like-sign dimuon charge asymmetry, Phys. Rev. Lett. 105, 081801 (2010).
354. V. M. Abazov *et al.*, Evidence for an anomalous like-sign dimuon charge asymmetry, Phys. Rev. D 82, 032001, (2010).
355. V. M. Abazov *et al.*, Measurement of the  $t\bar{t}$  cross section using high-multiplicity jet events, Phys. Rev. D 82, 032002 (2010).
356. V. M. Abazov *et al.*, Search for flavor changing neutral currents via quark-gluon couplings in single top quark production, Phys. Lett. B 693, 81 (2010),.
357. V. M. Abazov *et al.*, Search for scalar bottom quarks and third generation leptoquarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Lett. B 693, 95 (2010).
358. V. M. Abazov *et al.*, Dependence of the  $t\bar{t}$  production cross section on the transverse momentum of the top quark, Phys. Lett. B 693, 515 (2010).
359. V. M. Abazov *et al.*, Measurement of the normalized  $Z\gamma \rightarrow \mu\mu$  transverse momentum distribution in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Lett. B 693, 522 (2010).
360. V. M. Abazov *et al.*, Measurement of the dijet invariant mass cross section at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Lett. B 693, 531 (2010).
361. V. M. Abazov *et al.*, Search for the rare decay  $B_S \rightarrow \mu\mu$ , Phys. Lett. B 693, 539 (2010).
362. V. M. Abazov *et al.*, Measurement of  $t\bar{t}$  production in the  $\tau + jets$  topology using  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Rev. D 82, 071102 (2010).
363. V. M. Abazov *et al.*, Search for sneutrino production in  $e\mu$  final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96 \text{ TeV}$ , Phys. Rev. Lett. 105, 191802 (2010).

364. V. M. Abazov *et al.*, Search for events with leptonic jets and missing transverse energy in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 105, 211802, (2010).
365. V. M. Abazov *et al.*, Search for new fermions (“quirks”) at the Fermilab Tevatron Collider, Phys. Rev. Lett. 105, 211803 (2010).
366. V. M. Abazov *et al.*, Search for diphoton events with large missing transverse energy in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 105, 221802 (2010).
367. V. M. Abazov *et al.*, Search for  $ZH \rightarrow llbb$  production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 105, 251801 (2010).
368. V. M. Abazov *et al.*, Search for pair production of the scalar top quark in the electron + muon final state, Phys. Lett. B 696, 321 (2010).
369. V. M. Abazov *et al.*, Search for a heavy neutral gauge boson in the dielectron channel with  $5.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 695, 88 (2010).
370. V. M. Abazov *et al.*, Measurement of the  $WZ \rightarrow l\nu ll$  cross section and limits on anomalous triple gauge couplings in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 695, 67 (2010).
371. V. M. Abazov *et al.*, Determination of the width of the top quark, Phys. Rev. Lett. 106, 022001 (2011).
372. V. M. Abazov *et al.*, Measurement of the W boson helicity in top quark decays using  $5.4 \text{ fb}^{-1}$   $p\bar{p}$  collision data, Phys. Rev. D 83, 032009 (2011).
373. V. M. Abazov *et al.*, Search for single vector like quarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 106, 081801 (2011).
374. V. M. Abazov *et al.*, Search for WH associated production in  $5.3 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at the Fermilab Tevatron, Phys. Lett. B 698, 6 (2011).
375. V. M. Abazov *et al.*, Measurement of the ratio of inclusive cross sections  $\sigma(p\bar{p} \rightarrow Z + b\text{quark})/\sigma(p\bar{p} \rightarrow Z + \text{jet})$  at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 83, 031105 (2011).
376. V. M. Abazov *et al.*, Search for neutral Higgs bosons in the multi-b-jet topology in  $5.2 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 698, 97 (2011).
377. V. M. Abazov *et al.*, Precise study of the  $Z/\gamma^*$  boson transverse momentum distribution in  $p\bar{p}$  collisions using a novel technique, Phys. Rev. Lett. 106, 122001 (2011).
378. V. M. Abazov *et al.*, Azimuthal decorrelations and multiple parton interactions in  $\gamma + 2$  and  $\gamma + 3$  jet events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 83, 052008 (2011).
379. V. M. Abazov *et al.*, Search for  $W' \rightarrow tb$  resonances with left- and right-handed couplings to fermions, Phys. Lett. B 699, 145 (2011).
380. V. M. Abazov *et al.*, Search for the standard model Higgs boson in the  $H \rightarrow WW \rightarrow l\nu qq$  decay channel, Phys. Rev. Lett. 106, 171802 (2011).
381. F. Abu-Ajamieh, G. Blazey, S. Cole, A. Dyshkant, D. Hedin, E. Johnson, I. Viti and V. Zutshi, Scintillator Tiles with MPPC Readout, Nuclear Inst. and Methods in Physics Research, A659, 348 (2011).
382. V. M. Abazov *et al.*, Measurement of color flow in  $t\bar{t}$  events from  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D83, 092002 (2011).
383. V. M. Abazov *et al.*, Search for flavor changing neutral currents in decays of top quarks, Phys. Lett B 701, 313 (2011).
384. V. M. Abazov *et al.*, Search for resonant WW and WZ production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett 107, 011801 (2011).
385. V. M. Abazov *et al.*, Measurement of spin correlation in  $t\bar{t}$  production using dilepton final states, Phys. Lett. B 702, 16 (2011).
386. V. M. Abazov *et al.*, Bounds on an anomalous dijet resonance in W+Jets production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 107, 011804 (2011).
387. V. M. Abazov *et al.*, Measurement of the ZZ production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D84, 011103 (2011).
388. V. M. Abazov *et al.*, Measurement of spin correlation in  $t\bar{t}$  production using a matrix element approach, Phys. Rev. Lett. 107, 032001 (2011).
389. V. M. Abazov *et al.*, Measurement of the top quark pair production cross section in the lepton+jets channel in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D84, 012008 (2011).

390. V. M. Abazov *et al.*, Measurement of the  $\sin^2\theta_{eff}$  and Z-light quark couplings using the forward-backward charge asymmetry at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D84, 012007 (2011).
391. V. M. Abazov *et al.*, Measurement of the production fraction times branching fraction  $f(b \rightarrow \Lambda_b)B(\Lambda_b \rightarrow J/\psi\lambda)$ , Phys. Rev. D84, 031102 (2011).
392. V. M. Abazov *et al.*, Precise measurement of the top quark mass from lepton+jets events at D0, Phys. Rev. D84, 032004 (2011).
393. V. M. Abazov *et al.*, Determination of the pole and MS masses of the top quark from the  $t\bar{t}$  cross section, Phys. Lett. B 703, 422 (2011).
394. V. M. Abazov *et al.*, Search for a fourth generation  $t'$  quark in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 107, 082001 (2011).
395. V. M. Abazov *et al.*, Precise measurement of the top quark mass in the dilepton channel at D0, Phys. Rev. Lett. 107, 082004 (2011).
396. V. M. Abazov *et al.*, Search for neutral supersymmetric standard model Higgs Bosons decaying to tau pairs produced in association with b quarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 107, 121801 (2011).
397. V. M. Abazov *et al.*, Direct measurement of the mass difference between top and antitop quarks, Phys. Rev. D84, 052005 (2011).
398. V. M. Abazov *et al.*, Precision measurement of the ratio  $B(t \rightarrow Wb)/B(t \rightarrow Wq)$  and extraction of  $V_{tb}$ , Phys. Rev. Lett. 107, 121802 (2011).
399. V. M. Abazov *et al.*, Measurement of the anomalous like-sign dimuon charge asymmetry with  $9 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions, Phys. Rev. D84, 052007 (2011).
400. V. M. Abazov *et al.*, Measurement of the  $t\bar{t}$  production cross section using dilepton events in  $p\bar{p}$  collisions, Phys. Lett. B 704, 403 (2011).
401. V. M. Abazov *et al.*, Measurement of three-jet differential cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B704, 434 (2011).
402. V. M. Abazov *et al.*, Measurement of inclusive  $W$ +Jets production rates as a function of jet transverse momentum in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 705, 200 (2011).
403. V. M. Abazov *et al.*, Search for first generation leptoquark pair production in the electron + missing energy + jets final state, Phys. Rev. D 84, 071104 (2011).
404. V. M. Abazov *et al.*, High mass exclusive diffractive dijet production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 705, 193 (2011).
405. V. M. Abazov *et al.*, Model independent measurement of t-channel single top quark production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B 705, 313 (2011).
406. V. M. Abazov *et al.*, Search for associated Higgs Boson production using like charge dilepton events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 84, 092002 (2011).
407. V. M. Abazov *et al.*, Measurement of single top quark production cross section and  $|V_{tb}|$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. D 84, 112001 (2011).
408. V. M. Abazov *et al.*,  $W\gamma$  production and limits on anomalous  $WW\gamma$  couplings in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 107, 241803 (2011).
409. V. M. Abazov *et al.*, Forward-backward asymmetry in top quark-antiquark production, Phys. Rev. D84, 112055 (2011).
410. V. M. Abazov *et al.*, Search for Higgs Bosons decaying to tau-tau pairs in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Lett. B707, 323 (2011).
411. Search for the standard model and a fermiophobic Higgs boson in diphoton final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **107**, 151801 (2011).
412. V. M. Abazov *et al.*, Search for doubly charged Higgs Boson pair production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, Phys. Rev. Lett. 108, 021801 (2012).
413. Construction and performance of a silicon photomultiplier, extruded scintillator tail-catcher and muon-tracker, C. Adlof *et al.* (CALICE collaboration), JINST 7, 04015 (2012).
414. Test Beam Performance of Directly Coupled Scintillator Tiles Using Hamamatsu MPPCs, F. Abu-ajamich, G. Blazey, S. Cole, A. Dyshkant, D. Hedin, E. Johnson, I. Viti, V. Zutshi, Physics Procedia 37, 289 (2012).

415. Search for Higgs bosons of the minimal supersymmetric standard model in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **710**, 569 (2012).
416. Search for universal extra dimensions in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 131802 (2012).
417. Measurements of  $WW$  and  $WZ$  production in  $W + \text{jets}$  final states in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 181803 (2012).
418.  $Z\gamma$  production 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.* [D0 Collaboration], Phys. Rev. D **85**, 052001 (2012).
419. Search for a Narrow  $t\bar{t}$  Resonance in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 051101 (2012).
420. Search for anomalous  $Wtb$  couplings in single top quark production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **708**, 21 (2012).
421. Measurement of the relative branching ratio of  $B_s^0 \rightarrow J/\psi f_0(980) \rightarrow B_s^0 \rightarrow J/\psi\phi$ , V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 011103 (2012).
422. Evidence for spin correlation in  $t\bar{t}$  production, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 032004 (2012).
423. Measurement of the inclusive jet cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 052006 (2012).
424. Search for charged massive long-lived particles, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 121802 (2012).
425. Measurement of the CP-violating phase  $\phi_s^{J/\psi\phi}$  using the flavor-tagged decay  $B_s^0 \rightarrow J/\psi\phi$  in  $8 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 032006 (2012).
426. Model independent search for new phenomena in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 092015 (2012).
427. Measurement of the semileptonic charge asymmetry in  $B^0$  meson mixing with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 072009 (2012).
428. Limits on anomalous trilinear gauge boson couplings from  $WW$ ,  $WZ$  and  $W\gamma$  production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **718**, 451 (2012).
429. Search for the standard model Higgs boson in associated  $WH$  production in  $9.7 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **109**, 121804 (2012).
430. Combined search for the standard model Higgs boson decaying to  $b\bar{b}$  using the D0 Run II data set, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **109**, 121802 (2012).
431. Evidence for a particle produced in association with weak bosons and decaying to a bottom-antibottom quark pair in Higgs boson searches at the Tevatron, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. Lett. **109**, 071804 (2012).
432. Search for the standard model Higgs boson in  $ZH \rightarrow \ell^+\ell^-b\bar{b}$  production with the D0 detector in  $9.7 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **109**, 121803 (2012).
433. Search for the standard model Higgs boson in the  $ZH \rightarrow \nu\bar{\nu}b\bar{b}$  channel in  $9.5 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **716**, 285 (2012).
434. Measurement of angular correlations of jets at  $\sqrt{s} = 1.96$  TeV and determination of the strong coupling at high momentum transfers, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **718**, 56 (2012).
435. Search for Higgs boson production in oppositely charged dilepton and missing energy events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 032010 (2012).

436. Combination of the top-quark mass measurements from the Tevatron collider, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D **86**, 092003 (2012).
437. Measurement of the differential cross section  $d\sigma/dt$  in elastic  $p\bar{p}$  scattering at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 012009 (2012).
438. Combination of CDF and D0 measurements of the  $W$  boson helicity in top quark decays, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D **85**, 071106 (2012).
439. Search for pair production of the scalar top quark in muon+tau final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **710**, 578 (2012).
440. A measurement of the  $WZ$  and  $ZZ$  production cross sections using leptonic final states in  $8.6 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 112005 (2012).
441. Measurement of the top quark mass in  $p\bar{p}$  collisions using events with two leptons, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 051103 (2012).
442. Improved determination of the width of the top quark, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 091104 (2012).
443. Search for  $Z\gamma$  events with large missing transverse energy in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 071701 (2012).
444. Measurement of the  $\Lambda_b^0$  lifetime in the exclusive decay  $\Lambda_b^0 \rightarrow J/\psi\Lambda^0$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **85**, 112003 (2012).
445. Combination of searches for anomalous top quark couplings with  $5.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **713**, 165 (2012).
446. Search for violation of Lorentz invariance in top quark pair production and decay, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 261603 (2012).
447. Observation of a narrow mass state decaying into  $\Upsilon(1S)+\gamma$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 031103 (2012).
448. Measurement of the photon+ $b$ -jet production differential cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **714**, 32 (2012).
449. Search for the standard model Higgs boson in tau lepton pair final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **714**, 237 (2012).
450. Search for  $WH$  associated production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **86**, 032005 (2012).
451. Measurement of the W Boson Mass with the D0 Detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **108**, 151804 (2012).
452. Study of the decay  $B_s^0 \rightarrow J/\psi f_2'(1525)$  in  $\mu^+\mu^-K^+K^-$  final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D, **86**, 092011 (2012).
453. Search for Neutral Higgs Bosons in Events with Multiple Bottom Quarks at the Tevatron, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D **86**, 091101(R) (2012).
454. Measurement of the semileptonic charge asymmetry using  $B_s^0 \rightarrow D_s\mu X$  decays, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett., **110**, 011801 (2013).
455. Measurement of Leptonic Asymmetries and Top Quark Polarization in  $t\bar{t}$  Production, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **87**, 011103(R) (2013).
456. Measurement of the combined rapidity and  $p_T$  dependence of dijet azimuthal decorrelations in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **721**, 212(2013).
457. Search for charged massive long-lived particles at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **87**, 052011 (2013).
458. Measurement of the  $p\bar{p} \rightarrow W + b + X$  production cross section at  $\sqrt{s} = 1.96$  TeV, *et al.* [D0 Collaboration], Phys. Lett. B **718**, 1314 (2013).
459. Measurement of the ratio of three-jet to two-jet cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **720**, 6 (2013).

460. Measurement of the  $\gamma + c + jet$  cross section and the ratio  $\gamma + c$  and  $\gamma + b$  cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **719**, 354 (2013).
461. Search for the rare decay  $B_S \rightarrow \mu^+ \mu^-$ , V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **87**, 072006 (2013).
462. Measurement of the ratio of differential cross sections  $\sigma(p\bar{p} \rightarrow Z + bjet)/\sigma(p\bar{p} \rightarrow Z + jet)$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **87**, 092010 (2013).
463. Measurement of direct CP violation parameters in  $B^\pm \rightarrow J/\psi + K^\pm$  and  $B^\pm \rightarrow J/\psi + \pi^\pm$  decays with  $10.4 \text{ fb}^{-1}$  of Tevatron data, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. **110**, 241810 (2013).
464. Measurement of the differential cross sections for isolated direct photon production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **720**, 6 (2013).
465. Search for anomalous quartic  $WW\gamma\gamma$  couplings in dielectron and missing energy final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 012005 (2013).
467. Measurement of the ZZ production cross section and search for the standard model Higgs boson in the four lepton final state in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 032008 (2013).
468. Search for the Higgs boson in lepton, tau and jets final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052005 (2013).
469. Search for Higgs boson production in oppositely charged dilepton and missing energy final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052006 (2013).
470. Search for a Higgs boson in diphoton final states with the D0 detector in  $9.6 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052007 (2013).
471. Search for the standard model Higgs boson in  $l\nu$  final states in  $9.7 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052008 (2013).
472. Search for Higgs boson production in trilepton and like-charged electron-muon final states with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052009 (2013).
473. Search for  $ZH \rightarrow llbb$  production in  $9.7 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052010 (2013).
474. Combined search for the Higgs boson with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 052011 (2013).
475. Higgs boson studies at the Tevatron, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D **88**, 052014 (2013).
475. Combination of CDF and D0 W-Boson Mass Measurements, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D **88**, 052018 (2013).
476. Measurement of the differential cross section of photon plus jet production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 072008 (2013).
477. Evidence for s-channel single top quark production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B **726**, 656 (2013).
478. Studies of W boson plus jets production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 092001 (2013).
479. Measurement of the muon charge asymmetry in  $p\bar{p} \rightarrow W + X \rightarrow \mu\nu + X$  events at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 091102(R) (2013).
480. Measurement of the asymmetry in angular distributions of leptons produced in dilepton  $t\bar{t}$  final states in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D **88**, 112002 (2013).

481. Muon reconstruction and identification with the Run II D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Nuclear Inst. and Methods in Physics Research, A 737C, 281 (2014).
482. Study of CP-violating charge asymmetries of single muons and like-sign dimuons in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D89, 012002 (2014).
483. Search for the X(4140) state in  $B^+ \rightarrow J/\psi\phi K^+$  decays with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D89, 012004 (2014).
484. Measurement of associated production of Z bosons with charm quark jets in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 112, 042001 (2014).
485. Measurement of the W boson mass with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D89, 012005 (2014).
486. Measurement of the direct CP-violating charge asymmetry in  $D_S^\pm \rightarrow \phi\pi^\pm$ , V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 112, 011804 (2014).
487. Combinations of measurements of the top-quark pair production cross section from the Tevatron Collider, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. D89, 072001 (2014).
488. Electron and photon identification in the D0 experiment, V. M. Abazov *et al.* [D0 Collaboration], Nucl. Inst. and Meth. A750, 78 (2014).
489. Double parton interactions in  $\gamma + 3$  jets and  $\gamma + b/c + 2$  jets events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV in D0, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 89, 072006 (2014).
490. Measurement of the W boson production charge asymmetry in  $p\bar{p} \rightarrow W + X \rightarrow e\nu + X$  events at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 112, 151803 (2014).
491. Observation of s-channel production of single top quarks at the Tevatron, T. Aaltonen *et al.* [CDF and D0 Collaborations], Phys. Rev. Lett. 112, 231803 (2014).
492. Improved b-quark jet identification at the D0 experiment, V. M. Abazov *et al.* [D0 Collaboration], Nucl. Inst. and Meth. A763, 290 (2014).
493. Precise measurement of the top quark mass in lepton+jets final states at D0, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 113, 032002 (2014).
494. Jet energy scale determination in the D0 experiment, V. M. Abazov *et al.* [D0 Collaboration], Nucl. Inst. and Meth. A763, 442 (2014).
495. Study of the electric charge of the top quark in  $p\bar{p} \rightarrow t\bar{t}$  events, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 051101 (2014).
496. Measurement of the differential inclusive  $\gamma + 2b - jets$  cross section and the ratio  $\sigma(\gamma + 2b)/\sigma(\gamma + b)$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B 737, 357 (2014).
497. Constraints on models for the Higgs boson with exotic spin and parity in  $VH \rightarrow Vb\bar{b}$  final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 113, 161802 (2014).
498. Measurement of the forward-backward asymmetry in the distribution of leptons in  $t\bar{t}$  events in the leptons+jets channel, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 072001 (2014).
499. Measurement of the forward-backward asymmetry in  $p\bar{p} \rightarrow t\bar{t}$  production in l+jets channel, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 072011 (2014).
500. Measurement of the differential  $t\bar{t}$  cross section in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 092006 (2014).
501. Observations and studies of double  $J/\psi$  production at the Tevatron, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 111011 (2014).
502. Measurement of the direct CP-violating parameter  $A_{CP}(D^+ \rightarrow K^- \pi^+ \pi^+)$ , V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 90, 111102 (2014).
503. Measurement of the forward-backward asymmetry in the production of  $B^\pm$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 114, 051803 (2015).

504. Measurement of the  $B_s^0$  lifetime in the favor-specific decay channel  $B_s^0 \rightarrow D_s^- \mu X$  with the D0 detector, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 114, 062001 (2015).
505. Measurement of the electron charge asymmetry in  $p\bar{p} \rightarrow W + X \rightarrow e\nu + X$  events at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 91, 032007 (2015).
506. Measurement of the ratio of inclusive cross sections  $\sigma(p\bar{p} \rightarrow Z + 2bjet)/\sigma(p\bar{p} \rightarrow Z + 2jet)$  in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 91, 022000 (2015).
507. Measurement of the  $\phi_\eta^*$  distribution of muon pairs with masses between 30 and 500 GeV in  $10.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 91, 072002 (2015).
508. Measurement of the W+b-jet and W+c-jet differential production cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B 743, 6 (2015).
509. Tevatron constraints on models of the Higgs boson with exotic spin and parity using decays to bottom-antibottom quark pairs, T. Aaltonen *et al.* [CDF, D0 Collaborations], Phys. Rev. Lett. 114, 151802 (2015).
510. Measurement of the forward-backward asymmetry in  $\Lambda_b^0$  and  $\bar{\Lambda}_b^0$  baryon production in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 91, 072008 (2015).
511. Precision measurements of the top-quark mass in lepton-jets final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 91, 112003 (2015).
512. Measurement of the effective weak mixing angle in  $p\bar{p} \rightarrow Z/\gamma^* \rightarrow e^+e^-$  events, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 115, 041801 (2015).
513. Simultaneous measurement of forward-backward asymmetry and top polarization in dilepton final states in  $t\bar{t}$  production at the Tevatron, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 92, 052007 (2015).
514. Tevatron combination of single-top-quark cross sections and determination of the magnitude of the Cabibbo-Kobayashi-Maskawa matrix element  $V_{tb}$ , T. Aaltonen *et al.* [CDF, D0 Collaborations], Phys. Rev. Lett. 115, 152003 (2015).
515. Search for violation of CPT and Lorentz invariance in  $B_s^0$  meson oscillations, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 115, 161601 (2015).
516. Inclusive production of the X(4140) state in  $p\bar{p}$  collisions at D0, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 115, 232001 (2015).
517. Precise measurement of the top quark mass in dilepton decays using optimized neutrino weighting, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B 752, 18 (2016).
518. Measurement of the forward-backward asymmetry of  $\Lambda$  and  $\bar{\Lambda}$  production in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 93, 032002 (2016).
519. Evidence for simultaneous production of  $J/\psi$  and  $\nu$  mesons, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 116, 082002 (2016).
520. Study of double parton interactions in diphoton + dijet events in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 93, 052008 (2016).
521. Measurement of the forward-backward asymmetries in the production of  $\Xi$  and  $\Omega$  baryons in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 93, 112001 (2016).
522. Measurement of the spin correlation between top and antitop quarks produced in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, V. M. Abazov *et al.* [D0 Collaboration], Phys. Lett. B 757, 199 (2016).
523.  $B_s^0$  lifetime measurement in the CP-odd decay channel  $B_s^0 \rightarrow J/\psi f_0(980)$ , V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 94, 012001 (2016).
524. Evidence for a  $B_s^0 \pi^\pm$  state, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 117, 022003 (2016).
525. Measurement of the top quark mass using the matrix element technique in dilepton final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 94, 032004 (2016).

523. Measurement of the inclusive  $t\bar{t}$  production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV and determination of the top quark pole mass, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 94, 092004 (2016).
524. Measurement of top quark polarization in  $t\bar{t}$  lepton+jets final states, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 95, 011101(R) (2017).
525. Measurement of the direct CP violating charge asymmetry in  $B^\pm \rightarrow \mu^\pm \nu_\mu D^0$  decays, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 95, 031101(R) (2017).
526. Combination of D0 measurements of the top quark mass, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 95, 012004(R) (2017).
527. Combined forward-backward asymmetry measurements in top-antitop quark production at the Tevatron, T. Aaltonen *et al.* [CDF, D0 Collaborations], Phys. Rev. Lett. 120, 042001 (2018).
528. Measurement of effective weak mixing angle in  $p\bar{p} \rightarrow Z/\gamma^* \rightarrow l^+l^-$  events, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. Lett. 120, 241802 (2018).
529. Study of the  $X^\pm(5568)$  state with semileptonic decays of the  $B_S^0$  meson, V. M. Abazov *et al.* [D0 Collaboration], Phys. Rev. D 97, 092004 (2018).
530. Tevatron Run II combination of the effective leptonic electroweak mixing angle, T. Aaltonen *et al.* [CDF, D0 Collaborations], Phys. Rev. D 97, 112007 (2018).
531. Evidence for  $Z_c^\pm(3900)$  in semi-inclusive decays of b-flavored hadrons, V. M. Abazov *et al.* [D0 Collaborations], Phys. Rev. D 98, 952010 (2018).
532. Properties of  $Z_c^\pm(3900)$  produced in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaborations], Phys. Rev. D 100, 012005 (2019).
533. Inclusive production of the  $P_C$  resonances in  $p\bar{p}$  collisions, V. M. Abazov *et al.* [D0 Collaborations], submitted to Phys. Rev. D Rapid Communications, (2020).

Published Reports and Conference Proceedings (non-refereed)

1. A Monopole Search using an Accelerator Detector, P.L. Connolly *et al.*, Proceedings Monopole 83 and BNL-34144, 1984.
2. E740 Proportional Drift Tube Tests, C. Brown, D. Green, H. Haggerty, S. Hansen, D. Hedin, H. Jostlein, K. Krempetz, S. Kunori, P. Martin, D. Owen, P. Rapp, M. Takasaki, Fermilab Report TM-1301 (1985).
3. Elastic Scattering of Neutrinos and Antineutrinos by Electrons, L.A. Ahrens, *et al.*, Proceedings of the International Europhysics Conference on High-Energy Physics, p. 247 (1985).
4. Summary of Working Group V, Data Acquisition and Filtering, D. Cutts, *et al.*, p. 211, Proceedings of the Workshop on Triggering, Data Acquisition, and Computing for High Energy/High Luminosity Hadron-Hadron Colliders, Fermilab, November (1985).
5. Software Trigger Strategies, D. Hedin, p. 251, Proceedings of the Workshop on Triggering, Data Acquisition, and Computing for High Energy/High Luminosity Hadron-Hadron Colliders, Fermilab, November (1985).
6. Essential Modeling of a High Energy Physics Data Collection/Analysis System, J. Linnemann, P. Ward, B. Gibbard, D. Hedin, J. Hoftun, S. Protopopescu, T. Trippe, M. Zeller, BNL Report D0-361 (1986). Also presented at 'Structured Development' Forum VII, San Francisco, February (1986).
7. Heavy Flavors, B. Cox, *et al.*, Physics of the Superconducting Supercollider, Snowmass, 1986, p 33.
8. Experimental Search for W/Z Pairs and Higgs Bosons at Very High Energy Hadron-Hadron Colliders, G. Alverson, *et al.*, Physics of the Superconducting Supercollider, Snowmass, 1986, p 93.
9. Detecting W/Z Pairs and Higgs at High Energy pp Colliders: Main Experimental Issues, G. Alverson, *et al.*, Physics of the Superconducting Supercollider, Snowmass, 1986, p 114.
10. Probing the W-Z-Higgs Sector of Electroweak Gauge Theories at the Superconducting Super Collider, J.F. Gunion, *et al.*, Physics of the Superconducting Supercollider, Snowmass, 1986, p 142.

11. SSC Muon Detector Group Report, D. Carlsmith, D. Groom, D. Hedin, T. Kirk, T. Ohsugi, D. Reeder, J. Rosner, S. Wojicki, Physics of the Superconducting Supercollider, Snowmass, 1986, p 405.
12. Leptonic Angular Acceptances, D. Carlsmith, D. Hedin, B. Milliken, Physics of the Superconducting Supercollider, Snowmass, 1986, p 431.
13. Report of the Non-Magnetic Detector Group, T. Akesson, et al., Proceedings of the Workshop on Experiments, Detectors, and Experimental Areas for the Supercollider, Berkeley, July 1987, p. 472.
14. Collider Architecture Working Group, N.W. Reay, et al., Proceedings of the Workshop on High Sensitivity Beauty Experiments at Fermilab, November 1987, p. 253.
15. B-Physics at D0, D. Hedin, T. Kramer, K. Roberts, Proceedings of the Workshop on High Sensitivity Beauty Experiments at Fermilab, November 1987, p. 265.
16. B-Physics Possibilities at D0, D. Hedin, Heavy Flavours and High-Energy Collisions in the 1-100 TeV Range, Plenum Publishing, p. 27 (1989).
17. B-Physics with Existing Collider Detectors, M. Gold, C. Haber, P. Tipton, D. Hedin, S. Willis, Proceedings of the Workshop on Physics at Fermilab in the 1990's, Breckenridge, August 1989, p. 266.
18. Prospects for Top at the Tevatron Collider in the 1990's, R. Wagner, et al., Proceedings of the Workshop on Physics at Fermilab in the 1990's, Breckenridge, August 1989, p. 181.
19. Some Issues for the D0 Detector at the Fermilab Upgrade, D. Buchholz, et al., Proceedings of the Workshop on Physics at Fermilab in the 1990's, Breckenridge, August 1989, p. 253.
20. Fast Triggering Detector, D. Green, et al., Proceedings of the Workshop on Physics at Fermilab in the 1990's, Breckenridge, August 1989, p. 295.
21. The Performance and Physics Potential of the D-Zero Detector Operating at the SSC, W. Guryn, N. Graf, T. Murphy, J. Womersley, J. Ohnemus, M. Fortner, and D. Hedin, Florida State University preprint FSU-HEP-051290, January, 1991.
22. An Electron Muon Detector for the SSC, M. Fortner, D. Hedin, S. Linn, E. Wang, and H. Yamamoto, Florida State University preprint FSU-SCRI-91-15. February, 1991; also, LBL preprint LBL-30297.
23. High Luminosity and Special Purpose Detectors at Future Very High Energy Hadron Colliders, D. Hedin, et al., Proceedings of the 1990 Summer Study on High Energy Physics, p. 366 (1992).
24. The D0 Muon System and Early Results on its Performance, D. Hedin, Proceedings of the XXVI International Conference on High Energy Physics, American Institute of Physics, p. 633 (1993).
25. Muon Identification and Triggering at D0, M. Cummings, D. Hedin, and K. Johns, Proceedings of the Workshop on B-physics at Hadron Accelerators, Snowmass, p. 537, (1993).
26. B-Physics Results from D0, D. Hedin and L. Markosky, Proceedings of the XXVII International Conference on High Energy Physics, Institute of Physics Publishing, p. 997 (1995).
27. Studies of the Mass Resolution of  $b\bar{b}$  Dijets, D. Hedin, Proceedings of the 1996 DPF/DPB Workshop on New Directions for High Energy Physics, file LTH097.PDF (published as CD) (1997).
28. Search for  $ZX \rightarrow \nu\bar{\nu}b\bar{b}$  Events in the D0 Detector, the D0 Collaboration (D. Hedin author), paper submitted to the HEP97 Conference, Jerusalem (1997).
29. The D0 Detector at TeV33, B. Abbott *et al.*, Fermilab-Pub-98/124-E (1998).
30. Leptoquark Searches at Fermilab, D. Hedin, Particles Physics and Cosmology - High Energy Physics, AIP Proceedings 444, p. 223, (1998).
31. The D0 Detector at TeV33, B. Abbott *et al.*, Fermilab PUB-98/124-E (1998).
32. Combined Limits on First Generation Leptoquarks for the CDF and D0 Experiments, Fermilab PUB-98/312-E (1998).
33. SUSY Searches at D0, preprint Fermilab-Conf-99-047-E, Proceedings of the Division of Particles and Fields Conference, Los Angeles, January, 1999.

34. D0 Collaboration, Search for Bottom Squarks in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV, paper submitted to the International Europhysics Conference on High Energy Physics, July, 1999, Tampere, Finland and to the XIX International Symposium on Lepton and Photon Interactions at High Energies, hep-ex/9903041.
35. Report of the Tevatron Higgs Working Group, M. Carena et al., FERMILAB-CONF-00-279-T, hep-ph/0010338 (2000).
36. A feasibility study of a neutrino source based on a muon storage ring, N. Holtkamp (ed.), SLAC-Reprint-2000-054, (2000).
37. Feasibility study 2 of a muon based neutrino source, S. Ozaki (ed.), BNL-52623, (2001).
38. Progress in Energy Absorber R&D, D. Kaplan et al., proceedings of NuFact01 Workshop, Tsukuba, IIT-HEP-01/1, 2001.
39. Progress in Energy Absorber R&D 2:Windows, D. Kaplan et al., proceedings of PAC2001 Conference, Chicago, IIT-HEP-01/2, 2001.
40. Report of the Tevatron Higgs Working Group, M. Carena et al., FERMILAB-PUB=00/349, p 424, final version (2003).
41. A Search for Charged Massive Stable Particles at D0, The D0 Collaboration, D0 Note 4746-CONF (2005).
42. Search for Third Generation Leptoquarks in the  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, The D0 Collaboration, D0 Note 5176-CONF (2006).
43. ILC Reference Design Report Volume 4 - Detectors, ILC Collaboration (Ties Behnke, (Ed.) et al.). FERMILAB-APC, Dec 2007. e-Print: arXiv:0712.2356.
44. ILC Reference Design Report: ILC Global Design Effort and World Wide Study. By ILC Collaboration (James Brau, (Ed.) et al.). FERMILAB-APC, Aug 2007. e-Print: arXiv:0712.1950 [physics.acc-ph]
45. A search for excess dimuon production in the radial region  $1.6 \leq r \leq 10$  cm at the D0 experiment, The D0 Collaboration, D0 Note 5905-CONF (2009).
46. Advances in Multi-pixel Photon Counter Techniques, R.J. Abrams, V. Zutshi, and D. Hedin, Proceedings of the 23rd Particle Accelerator Conference, Vancouver, British Columbia, Canada (2009).
47. Low Beta Region Muon Collider Detector Design, M.A.C. Cummings and D. Hedin, Proceedings of the 23rd Particle Accelerator Conference, Vancouver, British Columbia, Canada (2009).
48. Search for Third Generation Leptoquarks and Scalar Bottom Quarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, The D0 Collaboration, D0 Note 5931-CONF (2009).
49. SiD Letter of Intent. H. Aihara, (Ed.) et al. FERMILAB-LOI-2009-01, FERMILAB-PUB-09-681-E, Nov 2009. arXiv:0911.0006 [physics.ins-det]
50. The International Large Detector: Letter of Intent. By ILD Concept Group - Linear Collider Collaboration (Toshinori Abe et al.). FERMILAB-LOI-2010-01, FERMILAB-PUB-09-682-E, DESY-2009-87, KEK-REPORT-2009-6, Feb 2010.
51. Integrated Low Beta Region Muon Collider Detector Design, M.A.C. Cummings and D. Hedin, Proceedings of the 1st International Particle Accelerator Conference (IPAC10), 3506 (2010).
52. CALICE Report to the DESY Physics Research Committee, C. Adloff *et al.*, arXiv: 1003.1394 [physics.ins-det] (2010).
53. G4BEAMLINE and MARS Comparison for Muon Collider Backgrounds, M. A. C. Cummings, S. Kahn, A. Morris, D. Hedin, J. Kozminski, Proceedings of the Particle and Accelerator Conference (PAC11), NYC, 2297 (2011).
54. Physics Validation of Monte Carlo Simulations for Detector Backgrounds at a Muon Collider, A. Morris, D. Hedin, J. Kozminski, M. A. C. Cummings, S. Kahn, Proceedings of the Particle and Accelerator Conference (PAC11), Conf. Proc. C **110328**, 2303 (2011).
55. G4beamline and MARS Comparison for Muon Collider Backgrounds, M. A. C. Cummings, S. Kahn, A. Morris, D. Hedin and J. Kozminski, Conf. Proc. C **110328**, 2297 (2011).
56. Test Beam Performance of Directly Coupled Scintillator Tiles Using Hamamatsu MPPCs, F. Abu-ajamich, G. Blazey, S. Cole, A. Dyshkant, D. Hedin, E. Johnson, I. Viti, V. Zutshi, Proceedings of TIPP 2011, Physics Procedia, 2011.

57. Physics and Detectors at CLIC: CLIC Conceptual Design Report edited by L. Linssen, A. Miyamoto, M. Stanitzki, H. Weerts, CERN.2012.003, A. Ioannisian et al., 2012.
58. Bethe Heitler Muon Backgrounds at a Muon Collider, S. Kahn, M. A. Cummings, T.J. Roberts, D. Hedin, A. Morris, J. Kozminski, 3 pages, presented at the International Particle and Accelerator Conference (IPAC12), New Orleans, 2012.
59. Muon Collider Detector Backgrounds, M. A. C. Cummings, S. Kahn, D. Hedin, J. Kozminski, International Particle and Accelerator Conference (IPAC12), New Orleans, Conf. Proc. C **1205201**, 211 (2012)
60. The Muon Momentum Resolution for the D0 Experiment in Run II, Oleg Brandt, Dave Hedin, Angelo Santos, Boris Tuchming, FERMILAB-TM-2540-PPD, July, 2012.
61. The muon certification procedure of the D0 experiment in Run II, Oleg Brandt, SungWoong Cho, Michael Cooke, Michael Eads, Dave Hedin, Jeong Ku Lim, Sung Park, Angelo Santos, Boris Tuchming, Yuriy Yatsunenkov, SungWoo Youn, FERMILAB-TM-2541-PPD, July, 2012.
62. Mu2E Conceptual Design Report, R.J. Abrams et al., Fermilab TM-2545, arXiv:1211.7019 [physics.ins-det], November, 2012.
63. Updated Combination of Searches for the Standard Model Higgs Boson at the D0 Experiment in  $9.7 \text{ fb}^{-1}$  of Data, V. M. Abazov *et al.* [D0 Collaboration], arXiv:1207.0422 [hep-ex], 2012.
64. Calorimetry for Lepton Collider Experiments - CALICE results and activities, C. Adloff *et al.*, arXiv:1212.5127 [physics.ins-det], December, 2012.
65. Feasibility Study for a Next-Generation Mu2e Experiment, K. Knoepfel, V. Pronskikh, R. Bernstein, D.N. Brown, R. Coleman, C.E. Dukes, R. Ehrlich, M.J. Frank, D. Glenzinski, R.C. Group, D. Hedin, D. Hitlin, M. Lamm, J. Miller, S. Miscetti, N. Mokhov, A. Mukherjee, V. Nagaslaev, Y. Oksuzian, T. Page, R.E. Ray, V.L. Rusu, R. Wagner, and S. Werkema, arXiv:1307.1168 [physics.ins-det], July, 2013.
66. A New Proton CT Detector, G. Coutrakon, G. Blazey, S. Boi, A. Dychkant, B. Erdelyi, A. Gearhart, D. Hedin, E. Johnson, V. Rykalin, S. Uzunyan, V. Zutshi, J. Krider, G. Sellberg, J.E. Rauch, M. Roman, P. Rubinov, P. Wilson, submitted to the Proceedings of the Eleventh International Topical Meeting on Nuclear Applications of Accelerators, Bruges, 2013.
67. Development of a proton Computed Tomography (pCT) Scanner at NIU, S. A. Uzunyan, G. Blazey, S. Boi, G. Coutrakon, A. Dychkant, B. Erdelyi, A. Gearhart, D. Hedin, E. Johnson, V. Zutshi, R. Ford, T. Fitzpatrick, J. Krider, G. Sellberg, J.E. Rauch, M. Roman, P. Rubinov, P. Wilson, K. Lalwani, M. Naimuddin, submitted to the Proceedings of the Eleventh International Topical Meeting on Nuclear Applications of Accelerators, Crimea, 2013. arXiv:1312.3977 [physics.ins-def]
68. A detector for proton computed tomography, G. Blazey, S. Boi, G. Coutrakon, A. Dychkant, L. Farnand, A. Gearhart, D. Hedin, E. Johnson, J. Kalnins, R. Salcido, S. A. Uzunyan, V. Zutshi, G. Sellberg, P. Rubinov, P. Wilson, K. Lalwani, and M. Maimuddin, FERMILAB-CONF-13-554-E Presented at 13th Vienna Conference on Instrumentation (VCI 2013) Conference, 2013.
69. An array of spherically dimpled scintillating cells for a calorimeter integrated readout layer, G. Blazey, A. Dychkant, K. Francis, D. Hedin, E. Johnson, V. Zutshi, Anna Pla-dalmau, Erik Ramberg, and Jim Schellpfeffer, Proceedings of Technology and Instrumentation in Particle Physics (TIPP), Amsterdam, FERMILAB-CONF-14-206-E, PoS TIPP2014, 257, 2015.
70. A new proton CT detector, G. Coutrakon, G. Blazey, S. Boi, A. Dychkant, B. Erdelyi, D. Hedin, E. Johnson, J. Krider, S. A. Uzunyan, V. Zutshi, R. Fordt, G. Sellberg, J.E. Rauch, M. Roman, P. Rubinov, P. Wilson, K. Lalwani, and M. Naimuddin, Proceedings of 23rd Conference on Application of Accelerators in Research and Industry (CAARI), San Antonio, 2014, arXiv:1409.0049 [physics.ins-det].
71. Mu2e Technical Design Report, L. Bartoszek et al., from NIU S. Boi, A. Dychkant, D. Hedin, Z. Hodge, V. Khalatian, R. Majewski, L. Martin, U. Okafor, N. Pohlman, R.S. Riddell, A. Shellito, Fermilab TM-2594, arXiv:1501.05241 [physics.ins-det], January, 2015.

72. Muon (g-2) Technical Design Report, J. Grange et al., arXiv:1501.06858 [physics.ins-det], January, 2015.
73. Hamamatsu PMT R7056 Study for the Extinction Monitor System of the Mu2E Experiment at Fermilab, S. Boi, A. Dychkant, D. Hedin, E. Johnson, E. Prebys, P. Rubinov, FERMILAB-CONF-15-456-AD-ND, arXiv:1511.02160 [physics.acc-ph], 2015 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC 2015), San Diego, 2015.
74. Development of a Proton CT Head Scanner, S. A. Uzunyan, G. Blazey, S. Boi, G. Coutrakon, A. Dychkant, K. Francis, D. Hedin, E. Johnson, J. Kalnins, V. Zutshi, R. Ford, J.E. Rauch, P. Rubinov, G. Sellberg, P. Wilson, and M. Naimuddin, 2015 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC 2015), San Diego, 2015.
75. Development of a Proton computer tomography detector system, Md. Naimuddin, S. A. Uzunyan, G. Blazey, S. Boi, G. Coutrakon, A. Dychkant, B. Erdelyi, D. Hedin, E. Johnson, V. Zutshi, R. Ford, J.E. Rauch, V. Rykalin, P. Rubinov, G. Sellberg, P. Wilson, M. Roman, IWORID Proceeding, arXiv:1510.00130 [physics.med-ph], JINST, 11, C02012, 2016.
76. Calibration and GEANT4 Simulations of the Phase II Proton Compute Tomography (pCT) Range Stack Detector, S. A. Uzunyan, G. Blazey, S. Boi, G. Coutrakon, A. Dychkant, K. Francis, D. Hedin, E. Johnson, J. Kalnins, V. Zutshi, R. Ford, J.E. Rauch, P. Rubinov, G. Sellberg, P. Wilson, and M. Naimuddin, Fermilab-TM-2617-AD-CD-E, arXiv:1601.00249 [physics.ins-det] 2016.
77. Fermilab testbeam facility annual report - FY 2016, M. Albrow et al., FERMILAB-TM-2640.DI, November, 2016.
78. Expression of Interest for the Evolution of the Mu2e Experiment, F. Abusalma et al., arXiv:1802.02599, 2018.
79. Statistical Measurement of Longitudinal Beam Halo in the Fermilab Recycler, E. Prebys, T. Nguyen A. Gaponenko, R. Hooper, A. Dychkant, D. Hedin, M. Jones, Proceedings of the 2019 IPAC Conference, Melbourne, 2019.

D0 reports were made available to the public at the HEP Inspire database in 2014.

1. D0 Note 23, D0 Muon Monte Carlo, D. Hedin, 9/29/83.
2. D0 Note 32, D0 Muons (UrAr II), D. Hedin, 10/1/83.
3. D0 Note 141, ISAJET of the Fermilab VAX, D. Hedin, 10/16/84.
4. D0 Note 166, Muons in Jets:Hit Density, D. Hedin, 1/20/85.
5. D0 Note 167, W, Z, and Top Geometric Acceptances, D. Hedin, 1/22/85.
6. D0 Note 168, BNL E-734 Drift Tubes, D. Hedin, 1/2/85.
7. D0 Note 193, E-740 Proportional Drift Tube Tests, C. Brown et al., 3/15/85.
8. D0 Note 304, Hadron Showers and Muon Trajectories, D. Green et al., 11/1/85.
9. D0 Note 341, How to use the additional 3" between the calor and magnet, D. Hedin, 1/15/86.
10. D0 Note 362, Muon trigger studies, D. Hedin, 4/2/86.
11. D0 Note 402, Long-lived heavy particles in D0, D. Hedin, 6/10/86.
12. D0 Note 527, Muon Physics at Low Angles, D. Hedin, 3/13/87.
13. D0 Note 574, Measuring CP-Violation at D0, D. Hedin, 6/20/87.
14. D0 Note 599, Graphics for ISAJET, D. Hedin and T. Kramer, 9/15/87.
15. D0 Note 611, User's Manual for the CALIB Program, D. Hedin et al., 9/18/87.
16. D0 Note 618, B Physics in D0 Transparencies, D. Hedin - 9/18/87.
17. D0 Note 666, B-Physics at D0 I: Muon Rates and Distributions and  $B \rightarrow \psi K_s$  Study, D. Hedin, 2/9/88.
18. D0 Note 742, B-Physics Possibilities at D0, D. Hedin, 8/7/88.
19. D0 Note 809, Random Cosmic Rates in D0, D. Hedin and B. Drendel, 2/18/89.
20. D0 Note 828, B-Physics Possibilities at D0, D. Hedin, 3/89.
21. D0 Note 889, Tagging Top using B goes to  $\mu$  Decays, D. Hedin, 9/1/89.
22. D0 Note 890, Muon Trigger Update, D. Hedin and M. Fortner, 9/15/89.
23. D0 Note 993, Triggering on B's at D0, D. Hedin, 7/31/90.

24. D0 Note 1018 The Performance and Physics Potential of the D0 Detector Operating at the SSC, M. Fortner, D. Hedin, et al., 10/10/90.
25. D0 Note 1054, The VME-based D0 Muon Trigger Electronics, M. Fortner et al., 11/14/90.
26. D0 Note 1117, Triggering Issues at the D0 Upgrade, D. Hedin, 04/01/91.
27. D0 Note 1190, Summary of the Top to Dilepton Working Group, McPhysics Workshop II, D. Hedin, 9/12/91.
28. D0 Note 1197, Extraction on  $Z \rightarrow \mu\mu$  and  $W \rightarrow \mu$  signals from the Blind Sample, McPhysics Workshop II, D. Hedin, 9/12/91.
29. D0 Note 1231, B-Physics Triggers, Triggerfest, D. Hedin, 10/1/91.
30. D0 Note 1325, D0 Muon Level 2 Filter, T. Diehl and D. Hedin, 1/17/92.
31. D0 Note 1337, Triggerfest 2: Level 2 Muon Simulation, D. Hedin, 1/20/92.
32. D0 Note 1488, The D0 Muon System and Early Results on its Performance, submitted to the proceedings of the ICHEP Conference, Dallas, TX 1992, D. Hedin, 10/1/92.
33. D0 Note 1738, Preliminary D0 Punchthrough Rates, D. Hedin, 6/5/93.
34. D0 Note 2113, Possible Muon Acceptances in Run II, D. Hedin and K. Johns, 5/25/94.
35. D0 Note 2127, Muon Wide Angle Chamber Efficiencies in Run Ia, D. Hedin, P. Quintas and D. Wood, 5/6/94.
36. D0 Note 2140, Muon Momentum Resolution, J. Green, D. Hedin, R. Markeloff, et al., 10/94.
37. D0 Note 2265, B-Physics Results from D0, D. Hedin and L. Markosky, 9/30/94.
38. D0 Note 2486, Level 2 trigger and off-line track reconstruction in the SAMUS spectrometer, D. Hedin et al., 3/2/95.
39. D0 Note 2633, Muon Wide Angle Chamber Efficiencies in Run Ib, D. Hedin, 7/95.
40. D0 Note 2716, Run Ib Muon Event Scanning, D. Hedin, T. Lagger, C. Nicholson, 9/95.
41. D0 Note 2757, Muon Identification in the Overlap Region, D. Hedin, 10/95.
42. D0 Note 2780, D0 Muon Upgrade, J.M. Butler, et al., 2/96.
43. D0 Note 2908, Implementation of D0FIX for SAMUS, D. Denisov, et al., 5/96.
44. D0 Note 2951, Studies of Jet-Jet Masses with two b-tagged jets with the D0 Detector, D. Hedin, et al., 5/96.
45. D0 Note 2967, Studies of Muon Scintillator using Dimuon Data, D. Hedin, 6/96.
46. D0 Note 2968, Studies of  $Z \rightarrow b\bar{b}$  Mass resolution, D. Hedin, 7/96.
47. D0 Note 3089, Dimuon Asymmetry Study Summary, D. Hedin and D. Fein, 10/96.
48. D0 Note 3106, Limits on the Production of ZX and Third Generation Leptoquark using Dimuon Events, D. Hedin and V. Sirotenko, 10/96.
49. D0 Note 3175, Limits on the Production of Pair Produced Third Generation Leptoquark and ZX Events, D. Hedin and V. Sirotenko, 6/97.
50. D0 Note 3237, Technical Design Report for the D0 forward trigger scintillation counters, V. Abramov, et al. 11/97.
51. D0 Note 3327, Search for Higgs in the  $ZH \rightarrow \nu\nu b\bar{b}$  channel in Run II: Trigger Study I, D. Hedin and V. Sirotenko, 10/97.
52. D0 Note 3365, Design of the Central Muon System, B. Baldin, et al. 11/97.
53. D0 Note 3410, The D0 Detector at TeV33, B. Abbott et al., 4/98.
54. D0 Note 3519, Search for Higgs in the  $ZH \rightarrow \nu\nu b\bar{b}$  channel in Run II: Analysis Study I, D. Hedin and V. Sirotenko, October, 1998.
55. D0 Note 3588, Search for Sbottom production, D. Hedin and V. Sirotenko, January, 1999.
56. D0 Note 3642, Central Muon Upgrade Scintillator Front-End Crate Addresses, H.T. Diehl, A. Ito, H. Mao, E. Podschweit, D. Hedin, May, 1999.
57. D0 Note 3950, Tuning of Run II PDT  $\Delta T$  Measurements, D. Hedin, March, 2002.
58. D0 Note 4059, Status of the Fast Simulation PMCS, G. Graham et al, December, 2002.
59. D0 Note 4201, Central Muon Scintillator Time of Flight Corrections, S. Doulas, M. Eads, D. Hedin, and A. Ito, October, 2004 (final).
60. D0 Note 4746, A Search for Charged Massive Stable Particles at D0, M. Eads and D. Hedin, March, 2005 (conference note).

61. D0 Note 4747, A Search for Charged Massive Stable Particles at D0, M. Eads and D. Hedin, March, 2005.
62. D0 Note 4965, A Search for Charged Massive Stable Particles at D0, M. Eads and D. Hedin, December, 2005.
63. D0 Note 5018, Search for Third Generation Leptoquarks in the b-Jets plus mEt Channel, A. Maciel, S. Uzunyan, A. Zatserklyaniy and D. Hedin, March, 2006.
64. D0 Note 5176, Search for Third Generation Leptoquarks in the  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV, A. Maciel, S. Uzunyan, A. Zatserklyaniy and D. Hedin, July, 2006.
65. D0 Note 5637, Search for SM Higgs Boson in the b-Jets plus etmiss Channel using Muon Tagging, Sergey Uzunyan, David Hedin, March, 2008.
66. D0 Note 5781, Testing the impact of PDT firmware changes on the muon reconstruction, M. Eads, D. Hedin, P. Kasper, and Yu. Yatsunenkov, October, 2008.
67. D0 Note 5824, Muon ID Certification for p20 data, S. W. Cho et al., December 2008.
68. D0 Note 5905, A search for excess dimuon production in the radial region  $1.6 < r < 10$  cm at the D0 experiment, M. Williams and D. Hedin, April, 2009 (conference note).
69. D0 Note 5925, Search for Third Generation Leptoquarks and Scalar Bottom Quarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, D. Hedin and S. Uzunyan, July, 2009
70. D0 Note 5931, Search for Third Generation Leptoquarks and Scalar Bottom Quarks in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, The D0 Collaboration, D. Hedin and S. Uzunyan, July, 2009 (conference note).
71. D0 Note 5998, Run IIb Local Muon Momentum Resolution, D. Hedin, October, 2009.
72. D0 Note 6025, Muon Identification Certification for the Summer 2009 Extended Dataset (Run IIb-1 and -2), O. Brandt et al., 2010.
73. D0 Note 6136, Local muon momentum resolution and energy loss corrections, D. Hedin, 2011.
74. D0 Note 6190, Muon Momentum Oversmearing Update for Run IIa, Run IIb2 and Run IIb3 Data Taking Epochs and Monte Carlo p17 and p20, A. Santos et al., 2011.
75. D0 Note 6312, IIb3 and IIb4 Muon Smearing and Resolution, L. Feng, A. Santos, O. Brandt, D. Hedin, 2012.
76. D0 Note 6314, Muon Momentum Oversmearing Update for Run IIb1 and Run IIb2 Data Taking Epochs and Run IIb2 Monte Carlo, L. Feng, A. Santos, O. Brandt, D. Hedin, 2012.
77. D0 Note 6326, Muon identification certification and treatment of systematic uncertainties for the Run IIb dataset, O. Brandt, S. Cho, D. Hedin, 2012.
78. D0 Note 6350, Updated measurement of the  $p\bar{p} \rightarrow Z/\gamma Z/\gamma$  cross section, L. Feng, D. Hedin, R. Hooper, J. Krause, D. Menezes, 2012.
79. D0 Note 6372, Updated measurement of the ZZ production cross section using  $10.4 \text{ fb}^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV, L. Feng, D. Hedin, R. Hooper, J. Krause, D. Menezes, 2012 (conference note).

#### Posters, Conference, Workshop and Seminar Talks: Scientific Venues

1. A New Measurement of the  $K_L \rightarrow \gamma\gamma$  Branching Ratio, D. Hedin, paper presented at the American Physical Society meeting, Washington, April (1980).
2. A Measurement of the Rate of pi-mu Atom Formation in  $K_L$  Decays, seminar presented at Brookhaven National Laboratory, April (1980).
3. A Measurement of the Rate of pi-mu Atom Formation in  $K_L$  Decays, seminar presented at Cornell University, April (1980).
4. Neutral Currents at Brookhaven, seminar given to the Physics Department, SUNY-Stony Brook, April (1984).
5. Elastic Scattering of Neutrinos and Antineutrinos by Electrons, L.A. Ahrens, et al., invited talk presented by D. Hedin, European Physical Society Conference, Bari, Italy, July 1985.
6. Muon Group Status Report, talk presented at the D0 Summer Workshop, Brookhaven, August 1985.
7. Neutral Currents at Brookhaven, seminar given to the Physics Department, UC-San Diego, October (1985).

8. Neutral Currents at Brookhaven, colloquium given to the Physics Department, SUNY-Stony Brook, November (1985).
9. Neutral Currents at Brookhaven, seminar given to the Physics Department, Univ. of Massachusetts, March (1986).
10. Neutral Currents at Brookhaven, colloquium given to the Physics Department, NIU, October (1986).
11. D0 Muon Group Status Report, seminar given to the Physics Department, Purdue University, March, 1987.
12. Muon Physics at Low Angles, seminar given at Fermilab, March, 1987.
13. Preliminary Report of the New W and Z Working Group, D. Hedin, invited talk presented at the workshop on Detectors for the Supercollider, Berkeley, 1987.
14. D0 Muon Group Status Report, seminar given to the Physics Department, Indiana University, October, 1987.
15. Physics at 2 TeV: An Experimentalist's Perspective, colloquium given to the Physics Department, NIU, January, 1988.
16. Physics at 2 TeV: An Experimentalist's Perspective, talk given to the Society of Physics Students, Michigan Technological University, May, 1988.
17. B-Physics Possibilities at D0, seminar given to the Physics Department, Michigan State University, May, 1988.
18. B-Physics Possibilities at D0, D. Hedin, invited talk presented at the 5th INFN Eloisatron Project Workshop on "Heavy Flavour Physics", Erice, Italy, June 1988.
19. D0 Muon Group Status Report, seminar given to the Physics Department, SUNY-Stony Brook, December, 1988.
20. B-Physics Possibilities at D0, seminar given at Fermilab, March, 1989.
21. Physics at 2 TeV: An Experimentalist's Perspective, colloquium given to the Physics Department, Illinois State University, March, 1989.
22. Some SSC Muon Detector Issues, invited talk given at the Workshop on Major SSC Detectors, Tucson, February 1990.
23. Muon Identification at D0, talk given at the D0 Winter Workshop, LBL, January 1991.
24. B-physics Status Report, talk given at the D0 Winter Workshop, LBL, January 1991.
25. Top to Dilepton Status Report, talk given at the D0 Winter Workshop, LBL, January 1991.
26. W and Z decays to Muons, talk given at the D0 Monte Carlo Workshop, Fermilab, October 1991.
27. The D0 Muon System and Early Results on Dimuon Production, D. Hedin, invited talk given at the XXVI International Conference on High Energy Physics, Dallas, August, 1992.
28. Muon Identification in Top Decays, talk given at the D0 Top Workshop, DeKalb, February 1992.
29. Searching for the Top Quark colloquium given to the Physics Department, NIU, March 1993.
30. Muon Identification Status, talk given at the D0 Summer Workshop, Stony Brook, June 1993.
31. The D0 Muon System, D. Hedin, talk given at the Workshop on B-physics at Hadron Accelerators, Snowmass, Co., June, 1993.
32. Measurement of the B-quark Production Cross Section at D0, D. Hedin, invited talk given at the XXVII International Conference on High Energy Physics, Glasgow, July, 1994.
33. Muon Identification at D0, talk given at the D0 Summer Workshop, Ann Arbor, June 1995.
34. B-physics Triggers, talk given at the D0 Summer Workshop, Ann Arbor, June 1995.
35. Discovery of the the Top Quark, colloquium given to the Physics Department, NIU, February 1996.
36. Studies of Jet-Jet Masses with Two B-Tagged Jets with the D0 Detector, D. Hedin, talk given at the TEV33 Workshop (Physics at a High Luminosity Tevatron Collider), Fermilab, May, 1996.

37. Studies of Jet-Jet Masses with Two B-Tagged Jets with the D0 Detector, D. Hedin, talk given at the D0 Workshop, Northeastern University, June, 1996.
38. Studies of  $HZ \rightarrow b\bar{b}\nu\bar{\nu}$  and  $gg \rightarrow H \rightarrow b\bar{b}$  at the Tevatron, D. Hedin, 1996 DPF/DPB Workshop on New Directions for High Energy Physics, Snowmass, July, 1996.
39. Thoughts on Designing Detectors for Really Large Hadron Colliders, D. Hedin, 1996 DPF/DPB Workshop on New Directions for High Energy Physics, Snowmass, July, 1996.
40. Leptoquark Results from D0, D. Hedin, Pheno 97:International Symposium on Recent Developments in Phenomenology, Madison, March, 1997.
41. Search for Third Generation Leptoquarks at D0, D. Hedin, American Physical Society meeting, Washington, April, 1997.
42. Status Report on Upgrade Scintillation Counters, D. Hedin, talk given at the D0 Workshop, Indiana University, July, 1997.
43. Leptoquark Searches at Fermilab, colloquium given at Illinois Institute of Technology, March, 1998.
44. Leptoquark Searches at Fermilab, invited talk given at the Latin American Symposium on High Energy Physics, San Juan, April, 1998.
45. Studies of  $ZH \rightarrow \nu\nu b\bar{b}$ , talk presented at the Supersymmetry/Higgs Workshop, Fermilab, May, 1998.
46. SUSY Searches at D0, invited talk given at the Division of Particles and Fields Conference, Los Angeles, January, 1999.
47. Studies of the  $E_{Tmiss} + b\bar{b}$  Channel, seminar presented at the University of Arizona, March, 1999.
48. The D0 Muon System and Identification for the next  $4 \text{ fb}^{-1}$ , D0 Summer Workshop, Prague, August, 2008.
49. Recent Results from D0, Physics Department colloquium, NIU, September, 2008.
50. Status of Tevatron Searches Beyond the Standard Model, invited talk, APS meeting, Denver, May, 2009.
51. Proposed Modifications to Muon Identification, D0 Summer Workshop, Fermilab, June, 2009.
52. Muon ID news and Local muon momentum resolution studies, D0 Summer Workshop, Marseilles, August, 2010.
53. Understanding Our Asymmetric Universe, physics department colloquium, NIU, 2010.
54. Muon ID status report, D0 Summer Workshop, University of Lancaster, July, 2012.
55. Study of Neutron Rates at the CRV for 1 and 3 GeV Proton Beams, talk presented at the Community Summer Study 2013 Workshop, Minneapolis, August 1, 2013.
56. Studies of radiation damage in silicon photo-multipliers (SiPMs) for the Mu2e cosmic ray veto system, K. Francis (presenter), S. Uzunyan, G. Blazey, A. Dyshkant, D. Hedin, J. Kalnins, V. Zutshi, S. Hansen, P. Rubinov, poster presented at ICHEP 2016, Chicago, August, 2016.
56. Studies of radiation damage in silicon photo-multipliers, S. Uzunyan (presenter), G. Blazey, A. Dyshkant, K. Francis, D. Hedin, J. Kalnins, V. Zutshi, S. Hansen, P. Rubinov, E.C. Dukes, Y. Oksuzian, poster presented at APS Division of Particles and Fields, Fermilab, August 2017.

#### Talks at Community (non-Scientific) Venues

1. Undergraduate Participation in High Energy Physics Research, D. Hedin, paper presented at the meeting of the Illinois Section of the American Association of Physics Teachers, Bradley University, October 1988.
2. NIU Physics Outreach Program, Illinois Deans' Meeting, NIU, October, 2001.
3. Einstein's 1905 papers, New Ideas in Science Symposium - The World Year in Physics, NIU, February, 2005.
4. Einstein's 1905 papers, talk given at the NIU Notables Brown Bag Lecture Series, April, 2005.

5. Presentation on physics outreach activities, DeKalb Kiwanis luncheon, May, 2007 (with P. Sievert).
6. How our view of the Universe can change, New Ideas in Science: Galileo Conference, NIU, February, 2009.
7. Particles we take for granted, Midwest Museum of Natural Science, March, 2009.
8. Particles and forces we take for granted, NIU Notables series, NIU Lifelong Learning Institute, March, 2009.
9. Quark Mixing and Neutrino Oscillations or Where did all the Matter come from?, Quarknet Summer Institute, NIU, 2010.
10. Understanding Our Asymmetric Universe, Quarknet Summer Institute, NIU, 2012.
11. Understanding Our Asymmetric Universe, BOT Lecture, NIU, October, 2013.
12. Understanding Our Asymmetric Universe, talk presented to the Friends of the NIU Library, October 15, 2013.
13. Ten Awesome Things You Didn't Know About Astronomy, lecture, School of Music, NIU, November, 2013.
14. Exoplanets, talk presented at STEMcafe event, Kuipers Orchard, August, 2014.
15. Understanding Our Asymmetric Universe, talk presented to the NIU Lifetime Learning Institute, March, 2015.
16. Understanding Our Asymmetric Universe, BOT Lecture, NIU, March, 2018.

#### Mu2E Notes (internal)

- Most of these are 15 minute presentations at internal group meetings.
- 1833, 1860: Muon beam stop simulations progress report; MBS rate studies 2 (2011).
- 1960: G4beamline studies on neutron interactions (2011).
- 2003, 2122, 2269, 2593, 2594: Muon beam stop update; Muon beam stop - SPBS studies; Muon beam stop - neutron studies; rates in the tracker from the muon beam stop; rates in the calorimeter from the MBS (2012).
- 2501: Neutron scattering in g4bl/geant4 (2012-2014).
- 2608, 2942, 2988, 3090, 3147, 3537, 3935, 4505, 5555, 5601, 5624, 5668, 5722, 5732, 5770, 5834, 5841, 5901, 5903, 6014, 6081, 6176, 6307, 6465, 6534, 6644, 6703, 6710, 6793, 6894, 7397: Interim report of the neutron Task Force (R. Coleman et al.); Inner neutron shielding studies; Gamma hit rate estimates; DS Shielding geometry 13; Neutron task force status (2013-2014).
- 2663, 2689, 2837, 3943, 4216, 3497, 5376, 5400, 5602, 7617, 7814, 8140: studies of the MBS design and physics impact (2013-2016).
- 3527, 3637, 4385, 7215: extinction monitor studies (2013-2016).
- 8222, analysis of LDRD test beam data (2016).
- 14994 G4bl Studies of MBS replacing polyethylene with polystyrene, 10625 G4bl Studies of Beam Flash and added mini-collimator, 8791 Radiative DIOs and Shielding, 8591 NE Corner Enhancement II - G4BL, 8590. Extinction Monitor Scintillation Counters, 2017.
- 15896 Extinction Monitor trigger and muID counters, 18465 Introduction to the simulation workshop, 19002 MBS design and beam flash in the calorimeter, 17697, 19354, 19630, 20149, 20787, 21492, 22103 G4beamline studies of the production target and pbar TS3 absorber, 21753, Simulations Working Group Report, 22510 CRV Shielding, 2018.

#### High Energy Physics Community Service

1. A coordinator of the Data Filtering/Acquisition group at the November 1985 Fermilab workshop.
2. Co-leader of the muon detector group at the 1986 Snowmass workshop.
3. Co-leader of the B physics and D0 upgrade working groups at the 1989 Breckenridge workshop of physics at Fermilab in the 1990s.
4. Co-leader of the muon group at the 1990 Tucson Workshop on Major SSC Detectors.

5. Co-leader of the SSC specialized detector working group at the 1990 Snowmass workshop.
6. Co-leader of the muon working group at the 1993 Snowmass workshop on B physics at hadron accelerators.
7. External reviewer, the PHENIX detector, Brookhaven National Laboratory, 1993.
8. External reviewer, the PHENIX detector, Brookhaven National Laboratory, 1996.
9. Chair, D0 Speakers Bureau, 2000-2002.
10. Chair, local organizing committee, D0 summer workshop, NIU, 2000.
11. Member, local organizing committee, LCWS08, Linear Collider Workshop, UIC, November, 2008.
12. Member, local organizing committee, D0 summer workshop, Fermilab, 2009.
13. Chair, local organizing committee, D0 summer workshop, NIU, 2013.
14. Deputy Chair, D0 institutional board, 2013-2014.

#### External Funding

1. Studies of High Energy Phenomena Using Muons, Fermilab, \$94,000, 4/87 - 2/90; for support of students.
2. Studies of High Energy Phenomena Using Muons, Department of Energy, \$480,000, 7/87 - 6/90.
3. Studies of High Energy Phenomena Using Muons, Fermilab, \$22,091, 8/88 - 8/89.
4. Studies of High Energy Phenomena Using Muons, Fermilab, \$44,720, 11/88 - 9/92.
5. Studies of High Energy Phenomena Using Muons, Department of Energy, \$99,500, 12/89 - 6/90.
6. Studies of High Energy Phenomena Using Muons, Fermilab, \$46,000, 2/90 - 9/92; for support of students.
7. Studies of High Energy Phenomena Using Muons, Department of Energy, \$713,000, 7/90 - 6/93.
8. Studies of High Energy Phenomena Using Muons, Department of Energy, \$3,864, 4/91, surplus equipment.
9. Texas National Research Laboratory Commission, \$134,565, 4/91 - 3/94, NIU portion of proposal with Chicago, Michigan and Wisconsin.
10. Studies of High Energy Phenomena Using Muons, Department of Energy, \$52,072, 2/92 - 3/92.
11. Studies of High Energy Phenomena Using Muons, Department of Energy, \$111,455, 5/92, surplus equipment.
12. Studies of High Energy Phenomena Using Muons, Fermilab, \$94,000, 10/92 - 3/98, for support of students.
13. Studies of High Energy Phenomena Using Muons, Department of Energy, \$503,013, 7/93 - 10/95.
14. Studies of High Energy Phenomena using Muons, National Science Foundation, \$616,886, 6/95 - 5/98.
15. Trigger Development, Fermilab, \$128,000, 2/98-9/98.
16. Studies of High Energy Phenomena using Muons, National Science Foundation, \$640,000, 7/98 - 6/01.
17. Detector Upgrade, Fermilab, \$58,000, 3/99-9/00, for support of students.
18. Muon Collider R&D, NSF (through IIT), \$100,306, 6/00-10/03.
19. Accelerator R&D at Fermilab, Technology Challenge Grant, \$97,983, 6/00-5/02.
20. Accelerator R&D at Fermilab, HECA (State of Illinois), \$1,783,000, 8/00-8/04.
21. Davis Hall Telescope Replacement, NIU Foundation, DeKalb County Community Foundation and Lake County Astronomical Society, \$10,000, \$1,000 and \$250, 11/0 - 5/01.
22. Studies of High Energy Phenomena using Muons, National Science Foundation, \$412,000, 8/01 - 7/03.
23. Searches for New Phenomena with High Energy Particle Colliders, \$639,000, National Science Foundation, 8/03 - 7/06.

24. R&D on Cooling of Intense Muon Beams, \$75,000, IIT subcontract from Cornell subcontract from NSF grant, 6/02-8/05.
  25. Search for Second Generation Leptoquarks using Advanced Data Analysis Methods in Particle Physics Research, \$60,000, NSF, 8/03-7/07.
  26. Physics Outreach during the World year in Physics, NIU Foundation, \$5,000, 2005.
  27. Searches for New Phenomena with High Energy Particle Colliders, \$785,440, National Science Foundation, 8/06 - 7/09.
  28. Appointment for Andriy Zatserklyaniy, \$36,623, Fermilab, 7/06 - 3/07.
  29. Physics Outreach, \$1,000, DeKalb County Community Foundation, 5/07 - 4/08.
  30. Summer support for Lei Feng, \$5,782, Fermilab, 5/07 - 8/07.
  31. Minerva experiment, \$15,120, Fermilab, 9/07 - 9/08.
  32. Appointment for Jeffrey Hill, \$18,144, Fermilab, 9/08 - 5/09.
  33. Appointment for R. Kathwinda, \$22,211, Fermilab, 9/08 - 8/09.
  34. Appointment for A. Dychkant, \$87,290, Fermilab, 1/09 - 9/11.
  35. Searches for New Phenomena with High Energy Particle Colliders, \$1,000,000, National Science Foundation, 8/09 - 7/12.
  36. Collaborative Research: University Program of Detector Research for the ILD Detector Concept at the ILC, \$157,500, National Science Foundation, 9/09 - 8/14.
  37. Simulations of Accelerator Based backgrounds in a Muon Collider, \$30,000, Muons, Inc (DOE STTR program), 7/10 - 8/11.
  38. Searches for New Phenomena with High Energy Particle Colliders, \$874,000, National Science Foundation, 7/12 - 6/15.
  39. Development of the MU2E Preliminary Design, \$256,989, Fermilab, 7/12 - 9/14 (PI, N. Pohlman co-PI).
  40. Beam emittance measurements for muon collider R&D, \$27,126, Universities Research Association, 9/13 - 9/14 (co-PI, M.A. Cummings PI).
  41. Development of the MU2E Preliminary Design, \$855,288, Fermilab, 10/14 - 12/21 (PI, N. Pohlman and V. Zutshi co-PI).
  42. Support for S. Boi for Mu2e effort, \$28,535, 12/2014 - 7/2015, (PI).
  42. Searching for New Phenomena with Leptons, \$880,320, National Science Foundation, 8/15 - 7/19 (co-PI, V. Zutshi PI, G. Blazey co-PI).
  43. Beam Precision Time Profile Monitor, \$30,990 (NIU share of \$192,211 total), Fermilab Laboratory Directed Research and Development (LDRD) Program, 12/15 - 12/18 (co-PI, E. Prebys Fermilab PI).
- total external funding: \$12,056,000.

#### Thesis Students

1. James Popp, MS, Some Aspects of a Prototype Muon Spectrometer, 1987.
2. Anshih Tseng, MS, The Performance of a Magnetic Spectrometer, 1989.
3. Peichun Lee, MS, A Measurement of the Momentum Spectrum of Cosmic Ray Muons, 1989.
4. Ed Mierkiewicz, MS, A relative measurement of the longitudinal neutron flux produced in high energy hadronic showering in iron, 1994.
5. John Yetter, MS,  $Z \rightarrow b\bar{b}$  signal extraction from QCD continuum background using jet-jet masses, 1996.
6. Jill Ziegler, MS, Testing of  $A - \phi$  scintillation counters, 1999.
7. Vandana Verma, MS, Studies of the ZH channel, 2002.
8. Cullen Nicholson, MS, galaxies and teaching astronomy, 2002.
9. Laura Layton, MS, The Davis Hall Observatory, 2005.
10. Mike Eads, PhD, A Search for Massive Stable Particles, 2005.
11. Xiaofei Song, PhD, A Search for Second Generation Leptoquarks, 2005.
12. Andriy Zatserklyaniy, PhD, A Search for Third Generation Scalar Leptoquarks, 2006.
13. Sergey Uzunyan, PhD, A Search for Charge 1/3 Third Generation Leptoquarks Using Muon Channels, 2006.
14. Erich Schoedl, MS, Importance of Detector Baseline Lengths for the Study of Neutrino Oscillations, 2007.

15. Alex Lee, MS, GEANT studies of scintillator cells, 2009.
16. Martin Braunlich, MS, D0 muon upgrade, 2010.
17. Aaron Morris, MS, Muon collider background simulations, 2011.
18. Robert Shea, MS, Studies of long scintillation counters, 2011.
19. Zachary Hodge, MS, Optimization of the muon stopping target for the Mu2E collaboration, 2013.
20. Diego Menezes, PhD, Search for the standard model Higgs Boson in the four lepton final state by the D0 experiment at Run II of the Tevatron collider, 2013.
21. Lei Feng, PhD, Measurement of the ZZ cross section in the four lepton final state by the D0 experiment at Fermilab, 2013.
22. Casey Mott, MS, Research and development of the Mu2e extinction monitor, 2016.

#### Undergraduate Award Students

1. James Raskowski, URAP, 1998-1999.
2. Michael Eads, URAP, 1999-2000.
3. Robert McIntosh, URAP, 2000-2001.
4. Stephen Boona, URAP, 2007-2008.
5. Joshua Hawke, URAP, 2008-2009.
6. Ivan Viti, URAP, 2009-2010.
7. Chason Zacher, Research Rookie, 2010-2011.
8. Mason Hayward, Research Rookie, 2012-2014.
9. Steven Boi, USOAR, URAP and URA, 2013-2014.
10. Ashlyn Shelitto, URA, 2013-2014.
11. Tyler Stringer, Research Rookie, 2013-2014 with L. Lurio.
12. Alison Peisker, URAP and URA, 2014-2016.
13. Dayne Coveyou, SEF, 2017.
14. Nathan Dille, SEF, 2018.

#### Courses Taught at NIU

1. PHYS 162, Elementary Astronomy, F90, S91, F92, F93, S94, F95, F96, S97, F97, F99, S00, F01, F03, S04, F04, S05, F11, S12, F12, S13, S14, S17, F17, S18, Su18, F18, SP19, Su19, F119, FL20.
2. PHYS 162H, Elementary Astronomy stand alone honors section, S98, F12, F13, F14, F16, F17, F18, F19.
3. PHYS 360, Modern Physics, S93, F98.
4. PHYS 385, Methods of Mathematical Physics I, S87, S88, S07.
5. PHYS 460/560, Quantum Physics, F89, F94, F00, F05, F06, F07, F08, F09, F10, F14, F15.
6. PHYS 461/561, Modern Physics, S89, S90, S95, S01, S06, S07, S08, S09, F14, S16.
7. PHYS 474, Methods of Experimental Physics, S14.
8. PHYS 477, Astrophysics, S96.
9. PHYS 485, Methods of Mathematical Physics II, F87, F88.
10. PHYS 690B/790B, Special Topics in High Energy Physics, S89, S14.
11. PHYS 499H, Senior Honors capstone project, S97, S99, F15, S16, F19.
12. UNIV 101, F15.
13. PHYS 383, Intermediate Quantum Physics, S18.