Andrew C. Haas
November 5, 2006

Chair, Search Committee
Dept. of Physics
University of Washington
Seattle, WA

Dear Selection Committee,

Please accept this letter and accompanying CV as application for your position as Assistant Professor of Experimental High-Energy Physics. For the past two and half years I have been a post-doc with the experimental high-energy physics group at Columbia University, working on the DZero experiment at Fermilab Tevatron and the ATLAS experiment at CERN's Large Hadron Collider (LHC). This position has given me the opportunity to continue to analyze new data from the world's currently highest-energy accelerator, while contributing to and preparing for an exciting new experiment that will soon be collecting data at a much greater energy.

I am fascinated by fundamental particle interactions and enjoy greatly working on experiments that help to understand them better as well as search for new physics. Perhaps the most interesting open question in particle physics today is how electro-weak symmetry is broken. How do the W and Z bosons get their mass? And why are these masses so small compared to the fundamental energy scale? DZero has the exciting possibility to address these questions, and ATLAS is nearly guaranteed to provide the answers. The leading candidate theory is a light Higgs boson and the presence of Supersymmetry. I have completed several analyses using data from DZero that address these issues. I pioneered a search at DZero for Higgs bosons in the context of Supersymmetry that takes advantage of DZero's new ability to identify hadronic bottom-quark jets. And I devised a way to observe the decays of Z bosons to bottom-quark jets, an important step towards observing the Higgs boson. Then I looked for evidence of a new long-lived particle that would be a sign of split-Supersymmetry. For the past year I have focused on the search for the Higgs boson within the context of the Standard Model. DZero has a chance of observing this particle, thus making one of the most exciting discoveries in the history of particle physics, before the experiments at the LHC can collect sufficient data. I recently finished an analysis in one of the most sensitive channels, where the Higgs boson is produced along with a Z boson that decays to leptons. The search is now being optimized, using an artificial neural-network to extract the possible signal from backgrounds. I've also had the opportunity to work on many projects that have improved the ability of DZero to take data and reconstruct it accurately. I played a major role in building DZero's Level 3 trigger and data acquisition system and in the calibration of the calorimeter. Through my work as convener of the bottom-quark jet identification group at DZero, I have been able to initiate and lead many interesting projects that have improved DZero's abilities. I would like to continue playing a leading role in the search for the Higgs boson at DZero, as well as searching for other new phenomena. Given the large amount of data that DZero is now collecting, I am optimistic that a major discovery may be within our reach.

The ATLAS experiment will study proton collisions using the nearly-completed LHC, which will provide seven times more energy than available at the Tevatron. With the Columbia group on ATLAS, I contributed to the manufacture, testing, installation, and commissioning of the sophisticated electronics which record data from the Liquid Argon calorimeter. I have also developed software for the monitoring of calorimeter data quality and am responsible for the display of calorimeter data in the ATLAS event display. And to prepare for physics from the ATLAS experiment, I have analyzed simulated data and optimized a search strategy for Higgs bosons in the decays of Supersymmetric particles. The entire physics community is extremely excited to see the results and almost certain

discoveries from this new energy frontier, which opens as soon as 2008.

I look forward to remaining in an academic environment. I enjoy working with students, both undergraduate and graduate. For the past two summers, I have been part of a REU program where I had the opportunity to advise undergraduates on projects related to high-energy physics. And I have enjoyed advising a graduate student in our group at Columbia for the past year. I am excited to begin teaching undergraduate courses, which I feel will be an interesting and rewarding experience. And I would enjoy collaborating and exchanging ideas with other faculty in your department on a variety of topics.

Thank you for considering me for this position. As I was a graduate student in Physics at UW, I am already very familiar with your department, faculty, and the university as a whole. I feel I would be a good fit to your experimental high-energy group. Please feel free to contact me at haas@fnal.gov with any questions.

Sincerely,

Dr. Andrew C. Haas

Curriculum Vitae
Andrew C. Haas
112 W. 71 St. - Apt. 10, NY, NY 10023
Phone: 206-226-9340 email: haas@fnal.gov

1. Academic Degrees

PhD	University of Washington	2004	Physics
BS with Honors	Brown University	1998	Physics

2. Professional Experience

2004 - present Postdoctoral Research Associate
Department of Physics, Columbia University / Nevis Labs

Performed several analyses using data from Run II of the DZero experiment that address electro-weak symmetry breaking and the search for physics beyond the Standard Model. Published the most sensitive search for Higgs bosons in Supersymmetric models in 2005. Found the first evidence for Z->bb decays at DZero. Completed a search for new long-lived particles in the context of split-Supersymmetry. Used an artificial neural-network to optimize and perform a search for the Standard Model Higgs boson in the ZH channel. Convening the bottom-quark-jet identification group since Fall 2005, where I initiate projects and supervise students. Calibrated the hadronic calorimeter, leading to better reconstruction of jets. Continuing to support and improve the DZero Level 3 trigger / data acquisition system and event display.
Developed software for automated lifetime testing of the ATLAS LAr front-end boards (FEBs). Assisted in installation and commissioning of the FEBs on the ATLAS experiment. Developed software for online data-quality monitoring of the FEBs. Performed a Higgs search in simulated ATLAS data using the ATHENA framework. Worked on the ATLAS event display, and have been responsible for calorimeter display since 2005.

1999 - 2004 Research Assistant
Department of Physics, University of Washington, Seattle, WA

Performed a search using data from Run II of the DZero experiment at Fermilab to set a limit on the production of Higgs bosons in the MSSM. Helped to design, implement, commission, and support a new Level 3 trigger / data acquisition system for the DZero experiment based on commodity hardware and open-source software, leading to a publication in 2004. Implemented a monitoring system for the new data acquisition system at DZero, published in 2003. Developed various software for the triggering and reconstruction of events from DZero, including a new algorithm for reconstructing charged particle tracks and event vertices, published in 2000.

1998 - 1999 Research Assistant / Teaching Assistant
Department of Physics, University of Washington, Seattle, WA

Worked on simulations of the upcoming GLAST experiment. Worked on the DZero event display and debugged the DZero detector geometry model. Taught laboratory classes in mechanics and E&M.

3. Other Experience and Activities

Summer 2003 SLAC Summer Institute
Menlo Park, CA

Attended lectures and took part in discussion sessions focused on the interface between Cosmology and High-Energy Physics.

2002 - 2003 Graduate Student Representative
Fermilab, Batavia, IL

Organized monthly talks, out-reach events, and a student conference. Took part in a trip to Washington, D.C. to raise awareness of High-Energy Physics in the Senate and Congress.

Summer 1999 Software Developer
Pacific Northwest National Laboratories, Richland, WA

Developed software based on C++ and ROOT for the real-time monitoring of rare radioactive isotope concentrations.

4. Professional Affiliations

American Physical Society
American Association for the Advancement of Science
Elected member of Sigma Xi, The Scientific Research Society

5. Awards

2003 American Physical Society Northwest Section
Best Student Talk

2002 DZero Collaboration Meeting
Outstanding grad-student contributions

6. Selected Publications

DZero Collaboration (V.M. Abazov *et al.*), “Search for neutral supersymmetric Higgs bosons in multijet events at s**(1/2) = 1.96-TeV”, Phys.Rev.Lett.95:151801,2005, hep-ex/0504018.

B.Angstadt, *et al.*, "The DZERO level 3 data acquisition system", IEEE Trans.Nucl.Sci.51:445-450, 2004.

A. Haas *et al.*, The DZero online monitoring and automatic DAQ recovery, FERMILAB-CONF-03-467, CHEP-2003-TUGP011, Jun 2003, physics/0306195.

A. Haas (2000), “Simultaneous Tracking and Vertexing with Elastic Templates”, Proceedings of the VII International Workshop on Advanced Computing and Analysis Techniques in Physics Research, Oct 2000.

7. Presentations, Papers, and Posters

A. Haas for the DZero Collaboration (2006), “Search for the SM Higgs boson in the ZH->mumubb channel”, preliminary results for DPF 2006, http://www-d0.fnal.gov/Run2Physics/WWW/results/prelim/HIGGS/H27/H27.pdf

A. Haas for the ATLAS Collaboration (2006), “MSSM Higgs Prospects at ATLAS”, DPF, Hawaii.

A. Haas for the DZero Collaboration (2006), “MSSM Higgs Searches at DZero”, DPF, Hawaii.

A. Haas for the DZero Collaboration (2006), “New Phenomena Searches at DZero”, Exploring New Phenomena Workshop, http://home.fnal.gov/~gerstein/NPworkshop/.

A. Haas for the DZero Collaboration (2006), “Evidence for Z->bb decays at DZero”, preliminary results for ICHEP 2006, http://www-DZero.fnal.gov/Run2Physics/WWW/results/prelim/HIGGS/H22/H22.pdf

A. Haas for the DZero Collaboration (2006), “Search for stopped gluinos”, preliminary results for Moriond 2006, http://www-DZero.fnal.gov/Run2Physics/WWW/results/prelim/NP/N42/N42.pdf

A. Haas for the DZero Collaboration (2005), “Search for non-SM Higgs at DZero”, SUSY 2005, Durham, UK.

A. Haas for the DZero Collaboration (2004), “Higgs Searches at DZero”, Lake Louise, Alberta, CA.

A. Haas, “A search for neutral Higgs bosons at high tan beta in multi-jet events from p anti-p collisions at s**(1/2) = 1960-GeV”, FERMILAB-THESIS-2004-26.

A. Haas, *et al.* (2003), “Dataflow in the DZero Level3 Trigger / DAQ System”, Proceedings of the 2003 Nuclear Science Symposium, Section N36-71.

A. Haas for the DZero Collaboration (2003), “Recent Results from DZero”, American Physics Society Northwest Session, Portland, OR.

A. Haas for the DZero Collaboration (2003), “Search for Neutral Supersymmetric Higgs Bosons at the DØ Detector at the Tevatron in Run II”, American Physical Society April Meeting, Philadelphia, PA.

A. Haas, *et al.* (2002), “Ethernet-based Data Acquisition for the DZero Experiment at Fermilab”, Proceedings of the 2002 World Multi-Conference on Systematics, Cybernetics, and Informatics.

A. Haas for the DZero Collaboration (2002), “Search for Neutral Supersymmetric Higgs Bosons at the DØ Detector at the Tevatron in Run II”, American Physical Society April Meeting, Albuquerque, NM.

A. Haas (1998), “The Search for the Stau at DZero”, Senior Thesis, Brown University.

Statement of Research Interests

Dr. Andrew C. Haas

I have greatly enjoyed being a part of the DZero experiment. The data from DZero has already enabled me to perform cutting-edge searches for various signatures of the Higgs boson and Supersymmetry. Given that DZero is planning to continue to collect data through at least 2009, and that significant discoveries are possible, I would like to remain an active member of the DZero experiment. In particular I would like to remain focused on the search for the Standard Model Higgs boson. Extrapolations of the sensitivity of the current analyses indicates that DZero, combined with CDF, have a real chance of observing a light Higgs boson by 2009. This means that the Tevatron experiments could discover the Higgs boson before the LHC experiments have collected enough data, and understood it well enough, to do so. Realizing these chances will require significant effort optimizing the Higgs analyses and detector performance. I would plan on extending my current search for the Higgs boson in the ZH di-lepton channel, using new data and more advanced analysis methods. In addition I would work on several reconstruction tasks, such as improved bottom-quark jet tagging and di-jet invariant mass resolution. There is also a strong possibility that I could move into a leadership role in the DZero Higgs group, where I would help to coordinate efforts and represent DZero's Higgs program to the wider physics community.

In addition I would like to continue to use the large dataset from DZero to search for other new physics beyond the Standard Model. There are potentially dramatic discoveries waiting to be uncovered in DZero's data already! Finding the new physics requires performing a dedicated analysis for the given signature. For instance, I am interested in a model being put forth by one of UW's own theorists, which predicts events with displaced jets. I have already begun preliminary studies of this scenario, and I would like to develop a full analysis of this model, leading to a publication, and hopefully a discovery!

With ATLAS getting ready for an engineering run in late 2007, and high-energy data in 2008, more of my interest would shift towards this next-generation experiment as data draws nearer. I would continue to help with the commissioning of the detector and software, as well as becoming even more involved in plans for triggering and physics analyses. My goal would be to make sure that myself, and the UW group including students and post-docs, are ready to analyze and understand the first data from ATLAS, in search of new discoveries. As DZero stops taking data, I would transition to spending all of my research time on ATLAS. Hopefully what I am interested in at ATLAS will be greatly influenced by discoveries in the initial ATLAS data, or even from DZero! But otherwise I would likely continue to search for new phenomena such as Supersymmetry, or other more exotic signatures of new physics. This transition from the Tevatron experiments to those of the LHC will be a lot of hard work, analyzing data as carefully as possible from an existing experiment while preparing for a new experiment. But the reward is that these next few years promise to be an extremely exciting time in experimental particle physics.

Papers by Andrew C. Haas

1. **"Limits on anomalous trilinear gauge couplings from $WW \to e^+e^-$, $WW \to e^\pm\mu^\mp$, and $WW \to \mu^+\mu^-$ events from $p\bar{p}$ collisions at $\sqrt{s}$ = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Rev. D **74**, 057101 (2006) [arXiv:hep-ex/0608011]

2. **"Search for scalar leptoquarks in the acoplanar jet topology in p anti-p collisions at s**(1/2) = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Lett. B **640**, 230 (2006) [arXiv:hep-ex/0607009]

3. **"Search for a heavy resonance decaying into a Z + jet final state in p anti-p collisions at s**(1/2) = 1.96-TeV using the D0 detector"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Rev. D **74**, 011104 (2006) [arXiv:hep-ex/0606018]

4. **"Search for resonant second generation slepton production at the Tevatron"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Rev. Lett. **97**, 111801 (2006) [arXiv:hep-ex/0605010]

5. **"Search for neutral Higgs bosons decaying to tau pairs in p anti-p collisions at s**(1/2) = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Rev. Lett. **97**, 121802 (2006) [arXiv:hep-ex/0605009]

6. **"Search for R-parity violating supersymmetry via the LLE couplings lambda(121), lambda(122) or lambda(133) in p anti-p collisions at s**(1/2) = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Lett. B **638**, 441 (2006) [arXiv:hep-ex/0605005]

7. **"A precise measurement of the B/s0 lifetime"**
   V. M. Abazov *et al.* [D0 Collaboration]
   arXiv:hep-ex/0604046 (Submitted to Phys.Rev.Lett.)

8. **"Search for excited muons in p anti-p collisions at s**(1/2) = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Rev. D **73**, 111102 (2006) [arXiv:hep-ex/0604040]

9. **"Search for squarks and gluinos in events with jets and missing transverse energy in p anti-p collisions at s**(1/2) = 1.96-TeV"**
   V. M. Abazov *et al.* [D0 Collaboration]
   Phys. Lett. B **638**, 119 (2006) [arXiv:hep-ex/0604029]

10. **"Multivariate searches for single top quark production with the D0 detector"**
    V. M. Abazov *et al.* [D0 Collaboration]
    arXiv:hep-ex/0604020 (Submitted to Phys.Rev.D)

11. **"Search for the rare decay B0/s –¿ Phi mu+ mu- with the D0 detector"**
    V. M. Abazov *et al.* [D0 Collaboration]
    Phys. Rev. D **74**, 031107 (2006) [arXiv:hep-ex/0604015]

12. **"First direct two-sided bound on the B/s0 oscillation frequency"**
    V. M. Abazov *et al.* [D0 Collaboration]
    Phys. Rev. Lett. **97**, 021802 (2006) [arXiv:hep-ex/0603029]

13. **"Measurement of B(t −¿ W b)/B(t −¿ W q) at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **639**, 616 (2006) [arXiv:hep-ex/0603002]

14. **"Search for pair production of second generation scalar leptoquarks in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **636**, 183 (2006) [arXiv:hep-ex/0601047]

15. **"Measurement of the isolated photon cross section in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **639**, 151 (2006) [arXiv:hep-ex/0511054]

16. **"Search for the Higgs boson in H −¿ W W(*) decays in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **96**, 011801 (2006) [arXiv:hep-ex/0508054]

17. **"The upgraded D0 detector"**
V. M. Abazov *et al.* [D0 Collaboration]
Nucl. Instrum. Meth. A **565**, 463 (2006) [arXiv:physics/0507191]

18. **"Measurement of the lifetime difference in the B/s0 system"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 171801 (2005) [arXiv:hep-ex/0507084]

19. **"Measurement of semileptonic branching fractions of B mesons to narrow D** states"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 171803 (2005) [arXiv:hep-ex/0507046]

20. **"Search for large extra spatial dimensions in dimuon production at D0"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 161602 (2005) [arXiv:hep-ex/0506063]

21. **"Measurement of the t anti-t production cross section in p anti-p collisions at s**(1/2) = 1.96-TeV in dilepton final states"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **626**, 55 (2005) [arXiv:hep-ex/0505082]

22. **"Search for single top quark production in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **622**, 265 (2005) [arXiv:hep-ex/0505063]

23. **"Measurement of the W boson helicity in top quark decays"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. D **72**, 011104 (2005) [arXiv:hep-ex/0505031]

24. **"Search for Randall-Sundrum gravitons in dilepton and diphoton final states"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 091801 (2005) [arXiv:hep-ex/0505018]

25. **"Measurement of the t anti-t production cross section in p anti-p collisions at s**(1/2) = 1.96-TeV using lepton + jets events with lifetime b-tagging"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **626**, 35 (2005) [arXiv:hep-ex/0504058]

26. **"Measurement of the t anti-t production cross section in p anti-p collisions at s**(1/2) = 1.96-TeV using kinematic characteristics of lepton + jets events"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Lett. B **626**, 45 (2005) [arXiv:hep-ex/0504043]

27. **"Search for supersymmetry via associated production of charginos and neutralinos in final states with three leptons"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 151805 (2005) [arXiv:hep-ex/0504032]

28. **"Production of W Z events in p anti-p collisions at s**(1/2) = 1.96-TeV and limits on anomalous W W Z couplings"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 141802 (2005) [arXiv:hep-ex/0504019]

29. **"Search for neutral supersymmetric Higgs bosons in multijet events at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 151801 (2005) [arXiv:hep-ex/0504018]

30. **"Measurement of the p anti-p −¿ W gamma + X cross section at s**(1/2) = 1.96-TeV and W W gamma anomalous coupling limits"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. D **71**, 091108 (2005) [arXiv:hep-ex/0503048]

31. **"Study of Z gamma events and limits on anomalous Z Z gamma and Z gamma gamma couplings in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **95**, 051802 (2005) [arXiv:hep-ex/0502036]

32. **"Measurement of inclusive differential cross sections for Upsilon(1S) production in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 232001 (2005) [arXiv:hep-ex/0502030]

33. **"The DZERO level 3 data acquisition system"**
R. D. Angstadt *et al.*
IEEE Trans. Nucl. Sci. **51**, 445 (2004)

34. **"Search for first-generation scalar leptoquarks in p anti-p collisions at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. D **71**, 071104 (2005) [arXiv:hep-ex/0412029]

35. **"First measurement of sigma(p anti-p −¿ Z) x Br(Z −¿ tau tau) at s**(1/2) = 1.96-TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. D **71**, 072004 (2005) [arXiv:hep-ex/0412020]

36. **"A search for anomalous heavy-flavor quark production in association with W bosons"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 152002 (2005) [arXiv:hep-ex/0411084]

37. **"A measurement of the ratio of inclusive cross sections $\sigma(pp \to Z + b - \text{jet})/\sigma(pp \to Z + jet)$ at $\sqrt{s} = 1.96$ TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 161801 (2005) [arXiv:hep-ex/0410078]

38. **"Measurement of the WW production cross section in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 151801 (2005) [arXiv:hep-ex/0410066]

39. **"A search for $Wb\bar{b}$ and WH production in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 091802 (2005) [arXiv:hep-ex/0410062]

40. **"Measurement of the Λ_b^0 lifetime in the decay $\Lambda_b^0 \to J/\psi\Lambda^0$ with the DØ detector"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 102001 (2005) [arXiv:hep-ex/0410054]

41. **"Measurement of the ratio of B^+ and B^0 meson lifetimes"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 182001 (2005) [arXiv:hep-ex/0410052]

42. **"A search for the flavor-changing neutral current decay $B_s^0 \to \mu^+\mu^-$ in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV with the DØ detector"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 071802 (2005) [arXiv:hep-ex/0410039]

43. **"Measurement of the B_s^0 lifetime in the exclusive decay channel $B_s^0 \to J/\psi\phi$"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 042001 (2005) [arXiv:hep-ex/0409043]

44. **"Measurement of dijet azimuthal decorrelations at central rapidities in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 221801 (2005) [arXiv:hep-ex/0409040]

45. **"Search for supersymmetry with gauge-mediated breaking in diphoton events at DØ"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **94**, 041801 (2005) [arXiv:hep-ex/0408146]

46. **"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.* [D0 Collaboration]
Phys. Rev. Lett. **93**, 162002 (2004) [arXiv:hep-ex/0405004]

47. **"Search for doubly-charged Higgs boson pair production in the decay to $\mu^+\mu^+\mu^-\mu^-$ in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV"**
V. M. Abazov *et al.* [D0 Collaboration]
Phys. Rev. Lett. **93**, 141801 (2004) [arXiv:hep-ex/0404015]

48. **"A search for neutral Higgs bosons at high tan beta in multi-jet events from p anti-p collisions at s**(1/2) = 1960-GeV"**
A. C. Haas
FERMILAB-THESIS-2004-26

49. **"The DZERO level 3 data acquisition system"**
D. Chapin *et al.*
eConf **C0303241**, TUGP010 (2003) [eConf **C0303241**, MOGT002 (2003)] [arXiv:physics/0307070]

50. **"D0 online monitoring and automatic DAQ recovery"**
A. Haas *et al.*
eConf **C0303241**, TUGP011 (2003) [eConf **C0303241**, THGT004 (2003)] [arXiv:physics/0306195]

51. **"Simultaneous tracking and vertexing with elastic templates"**
A. Haas
Prepared for 7th International Workshop on Advanced Computing and Analysis Techniques in Physics Research (ACAT 2000), Batavia, Illinois, 16-20 Oct 2000