

**Andrew Alton**  
Department of Physics  
Augustana College  
Sioux Falls, 57197

### **Education and Training**

BS Physics: 1992, University of Iowa

MS Physics: 1996: Thesis Advisor: Gerald Thomas at Ball State University

PhD Physics: 2000: Thesis Advisor: Professor Tim Bolton at Kansas State University

Post-Doctorate in Physics: 2000-2006: University of Michigan Advisor: Professor Jianming Qian

### **Appointments**

Augustana College	Associate Professor	2012-present
Augustana College	Assistant Professor	2006-2012
University of Michigan	Post Doctoral Research Asst	2000-2006
Kansas State University	Research Assistant	1996-2000
Ball State University	Research Assistant	1994-1995

### **Closely Related Products:**

P. Agnes, et al., “Low-Mass Dark Matter Search with the DarkSide-50 Experiment”, Phys. Rev. Lett. 121(2018), 081307.

P. Agnes, et al., “DarkSide-50 532-day Dark Matter Search with Low-Radioactivity Argon”, Phys. Rev. D98(2018), 102006.

P. Agnes, et al., “Results from the First Use of Low Radioactivity Argon in a Dark Matter Search”, Phys. Rev. D93(2016), 081101.

T. Alexander, et al., “Light Yield in DarkSide-10: a Prototype Two-phase Argon TPC for Dark Matter Searches”, Astropart.Phys.49(2013) 44-51.

A. Alton and T. Alexander, “A possible explanation for NuTeV’s anomalous dimuon events”, Phys. Rev. D83:115018 (2011).

### **Selected Products:**

V. M. Abazov et al., “Search for a scalar or vector particle decaying into  $Z\gamma$  in p anti-p collisions at  $s^{**}(1/2) = 1.96\text{-TeV}$ ”, Phys. Lett. B **671**, 349 (2009).

V. M. Abazov et al., “Search for narrow resonance in Zg events gathered by DØ at  $\sqrt{s} = 1.96\text{-TeV}$ ”, Phys. Lett. B641:415-422 (2006).

V. M. Abazov et al., “Limits on anomalous ZZg and Zgg production based on Zg events gathered at  $\sqrt{s} = 1.96\text{-TeV}$ ”, Phys. Rev. Lett. 95, 051802 (2005).

A. Alton, et al., “Observation of neutral current charm production in nmFe scattering at the Fermilab Tevatron”, Phys. Rev. D64 (2001).

A. Alton, et al., “Search for light-to-heavy quark flavor changing neutral currents in nmN and nmN scattering at the Fermilab Tevatron”, Phys. Rev. D63 (2000).

### **Synergistic Activities**

1. Participated as an instructor for the South Dakota Davis-Bahcall/Summer Scholars program in 2009, 2010, 2012, and 2013
2. Grading advanced placement physics tests for ETS in 2008 and 2009.

3. Commissioning of the DØ fiber tracker and central preshower detectors.
4. Construction of Drift Chambers for the NuTeV and DoNuT experiments.
5. Commissioning work on the DarkSide cryogenic distillation column

### **Collaborators within the last 48 months.**

**DarkSide/MAX:** R. Alarcon, S. Balascuta (Arizona State University); D. Durben, K. Keeter, M. Zehfus (Black Hills State University); E. Aprile, K. Giboni, L. Goetzke, T. Haruyama, R. Lang, A. J. Melgarejo, G. Plante, B. Choi, K. E. Lim, G. Tajiri (Columbia University); S. Brice, A. Chou, P. Gratia, J. Hall, S. Pordes, A. Sonnenschein (Fermi National Accelerator Laboratory); G. Bruno, W Fulgione (Istituto Nazionale di Astrofisica); F. Arneodo, S. Fattori (Laboratori Nazionali del Gran Sasso); J. Monroe(Massachusetts Institute of Technology); A. Chavarria, E. Haas, C. Galbiati, A. Goretti, A. Ianni, T. Hohman, B. Loer, P. Meyers, D. Montanari, A. Nelson, R. Parsells, R. Saldanha, W. Sands, J. Brodsky, J. Xu, P. Mosteiro, H. Cao (Princeton University); U. Oberlack, Y. Mei, P. Shagin (Rice University); X. Ji, K. Ni, Y. Wei, X. Xiao (Shanghai Jiao Tong University); J. Martoff, S. Jansen-Varnum, C. Martin, J. Tatarowicz (Temple University); D. Aharoni, K. Arisaka, E. Brown, D. Cline, E. Pantic, P. F. Smith, A. Teymourian, C. W. Lam, H. Wang, Y. Meng (University of California at Los Angeles); J. Cardoso, L. C. Costa Coelho, J. M. Ferreira dos Santos, J. A. Matias Lopes, S. Orrigo, A. Ribeiro (University of Coimbra); E. Hungerford, L Pinsky (University of Houston); A. Pocar(University of Massachusetts at Amherst); M. Beck, V. Hannen, K. Hugenberg, H.W. Ortjohann, C. Weinheimer (University of Muenster, Germany); P. Collon, D. Robertson, C. Schmitt (University of Notre Dame); K. Lehmann (University of Virginia); A. Askin, L. Baudis, A. Ferella, M. Haffke, A. Kish, R. Santorelli, M. Schumann (University of Zürich); T. Doke, N. Hasebe, M. Mimura, M. Miyajima, S. Sasaki, S. Suzuki, S. Torii (Waseda University)

### **D0 Collaboration:**

See [http://www-d0.fnal.gov/author/authorlist/run2/d0\\_author\\_list\\_r2.pdf](http://www-d0.fnal.gov/author/authorlist/run2/d0_author_list_r2.pdf)