

# NORM J. BUCHANAN

## Publications and Presentations

### Journal Publications

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Abazov V.M. *et al.* (D0 Collaboration) "Search for Supersymmetry with Gauge-Mediated Breaking in Diphoton Events at DZero", Phys. Rev. Lett. **94**, 041801 (2005).

Abazov V.M. *et al.* (D0 Collaboration) "Measurement of the  $B_s^0$  Lifetime in the Exclusive Decay Channel  $B_s^0 \rightarrow J/\psi \phi$ ", Phys. Rev. Lett. **94**, 042001 (2005).

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Abazov V.M. *et al.* (D0 Collaboration) “Measurement of the  $t\bar{t}$  Cross Section in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.96$  TeV using Secondary Vertex  $b$ -tagging”, Phys. Rev. D **74**, 112004 (2006).

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- Abazov V.M. *et al.* (D0 Collaboration) “*Lifetime difference and CP-violating phase in the  $B_s$  system*”, Phys. Rev. Lett. **98**, 121801 (2007).
- Abazov V.M. *et al.* (D0 Collaboration) “*Search for production of single top quarks via tgc and tug flavor-changing neutral currents at the Tevatron*”, Phys. Rev. Lett. **99**, 191802 (2007).
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Buchanan N.J. *et al.* “Design and implementation of the Front End Board for the readout of the ATLAS liquid argon calorimeters”, J. Inst **3**, P03004 (2008).

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### **Technical Notes**

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### **Conference Proceedings**

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Gingrich D., MacQueen D., and Buchanan N., Total Ionizing Dose Effects in an SRAM-based FPGA, proceedings of the 2nd annual Military and Aerospace Applications of Programmable Logic Devices and Technologies Conference, Laurel MD (1999).

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### **Conference Presentations**

Buchanan N., "Performance of the D0 Calorimeter during Run IIA of the Tevatron", presented at the 12<sup>th</sup> International Conference on Calorimetry in High Energy Physics, Chicago, Illinois (2006).

Buchanan N., "Jet Energy Scale and Inclusive Jet Cross Section at D0", presented at the Hadron Collider Physics Symposium, Les Diablerets, Switzerland (2005).

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Gingrich D. and Buchanan N., "Problems and Solutions to the Radiation Tolerance of the ATLAS Liquid Argon Calorimeter Electronics", presented poster at the 3rd annual Military and Aerospace Applications of Programmable Logic Devices and Technologies Conference, Laurel, MD (2000).

### **Miscellaneous Presentations**

Invited Seminar, "Calorimetry at DZero", Colorado State University, Ft. Collins, Colorado (2007).

Plenary Talk, "D0 Run Coordinator Report", D0 Collaboration Meeting, Michigan State University, East Lansing, Michigan (2007).

Review talk, "The D0 Calorimeter, Level 1 Calorimeter Trigger, and Layer Zero Silicon Detector Upgrades", Florida State University Department of Energy 5-year Review, Tallahassee, Florida (2005).

Plenary talk, "Status of the D0 Calorimeter", D0 Collaboration Meeting, Fermilab, Batavia, Illinois (2005).

Review talk, "D0 Calorimeter Operation Report", D0 Calorimeter Workshop, Fermilab, Batavia, Illinois (2005).

Review talk "Predicted Hardware Performance of the D0 Calorimeter at High Luminosity", D0 Collaboration Meeting, Vancouver, Canada (2005).

Review talk, "The D0 Calorimeter", Florida State University Department of Energy Annual Review, Fermilab, Batavia, Illinois (2004).

Review talk, "Status of the Level 2 Trigger Software", D0 Collaboration Meeting, Fresno, California (2004).

Review talk, "The D0 Silicon Track Trigger Simulation", Florida State University Department of Energy Annual Review, Tallahassee, Florida (2004).

Invited seminar, "Radiation Testing of the ATLAS Liquid Argon Calorimeter Switched Capacitor Array Controller", invited seminar - University of Arizona, Tucson, Arizona (2003).

Invited seminar, "Qualification of a Rad-Tolerant ASIC for Use in ATLAS", Florida State University, Tallahassee, Florida (2003).