David L. Adams

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2001-present: Applications Architect at Brookhaven National Laboratory

Deputy head of BNL Physics Applications Software Group (2002-2011)
Co-convener of the ATLAS Jet/MET software and validation group
Convener of the ATLAS Cathode Strip Chamber software group
Carried out search for diboson resonances
Editor for ATLAS $W' \to \ell\nu$ search papers
Active member of the ATLAS Exotic physics group
Author of muon performance chapter for ATLAS expected performance
Carried out ATLAS muon performance and validation studies

1999-2001: Visiting Professor at University of Texas, Arlington

Assembled and maintained computing farm for Monte Carlo production
Taught introductory and computational physics courses

1998-2001: Guest Scientist at Fermi National Accelerator Laboratory

Co-leader of the DØ global tracking group

1988-1999: Research Scientist, Faculty Fellow and Sr. Faculty Fellow at Rice University

Developed TRF++ track reconstruction package (used for D0 run 2 track reconstruction)
Developed CTBUILD software development environment (initial system used for D0 run 2)
Participated in design of the DØ fiber tracking detector
Developed track finding for the SDC detector at the SSC
Participated in fixed target experiments at Fermilab

1987-1988: Postdoctoral Fellow at University of Texas, Austin

Co-spokesman for a spin-scattering experiment at LANL

1986-1987: Postdoctoral Fellow at University of California, Los Angeles

Participated in spin scattering experiments at LANL and Saclay

Education

Ph.D. in physics, University of California, Los Angeles, 1986
M.S. in physics, University of California, Los Angeles, 1981
B.S. in physics, California institute of Technology, 1980

Skills

Proficient C++ programmer; experience with Python, JavaScript and Fortran
Excellent technical writing
Good knowledge of high-energy physics formalism and tools

Selected publications

[1] ATLAS Collaboration, *Search for excited electrons and muons with proton-proton collisions at sqrt(s) =8 TeV with the ATLAS detector*, New J. Phys. **15** (2012) 093011, `arXiv:1308.1364`.

[2] ATLAS Collaboration, *Search for a heavy gauge boson decaying to a charged lepton and a neutrino in 1 fb^{-1} of pp collisions at $\sqrt{s} = 7$ TeV using the ATLAS detector*, Phys. Lett. B **705** (2011) 28–46, `arXiv:hep-ex/1108.1316`.

[3] ATLAS Collaboration, *Search for dilepton resonances in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, Phys. Rev. Lett. **701** (2011) 272002, `arXiv:hep-ex/1108.1582`.

[4] ATLAS Collaboration, *Search for high-mass states with one lepton plus missing transverse momentum in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, Phys. Lett. B **701** (2011) 50, `arXiv:hep-ex/1103.1391`.

[5] ATLAS Collaboration, *Search for high mass dilepton resonances in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS experiment*, Phys. Lett. B **700** (2011) 163–180, `arXiv:hep-ex/1103.6218`.

[6] ATLAS Collaboration, *Measurement of the $W \to \ell\nu$ and $Z/\gamma \to \ell\ell$ production cross sections in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector*, JHEP **1012** (2010) 060, `arXiv:hep-ex/1010.2130`.

[7] ATLAS Collaboration, *Expected Performance of the ATLAS Experiment: Detector, Trigger and Physics*, CERN-OPEN-2008-020 (2009) , `arXiv:hep-ex/0901:0512`.

[8] D0 Collaboration, *Studies of WW and WZ Production and Limits on Anomalous $WW\gamma$ and WWZ Couplings*, Phys. Rev. D **60** (1999) 072002.

[9] D. Adams, B. Aas, E. Bleszynski, M. Bleszynski, G. Igo, et al., *Spin observables in small angle elastic p (polarized) d (polarized) $\to$ p (polarized) d scattering with an L-type deuteron target at 800 MeV*, Nucl. Phys. A **480** (1988) 530.

[10] D. Adams and M. Bleszynski, *On the relevance of the Dirac equation to the scattering of medium-energy nucleons from nuclei*, Phys. Lett. B **136** (1984) 10–14.