

David Wilkins Miller

Stanford University
Physics Department
Stanford, CA 94025 USA

United States: 1-773-818-6089
Switzerland: 41-76-545-6089

EDUCATION

Sept. 2006 to present Stanford University Stanford, CA
Doctor of Philosophy, Physics (in progress)

Sept. 2001 to June 2005 The University of Chicago Chicago, IL
B.A. with honors, Physics with a Specialization in Astrophysics

WORK EXPERIENCE

July 2005 to July 2006 Enrico Fermi Institute/CERN Chicago, IL / Geneva, Switz.
Research technician (ATLAS experiment)

- ATLAS Tile Calorimeter front-end electronics connections team leader
- *In situ* stability tests of LV, HV power supplies and on-detector electronics
- Commissioning and tests of FE electronics read-out chain integrity

Jan. 2003 to June 2005 Kavli Institute for Cosmological Physics Chicago, IL
Undergraduate research assistant (CAST experiment)

- Construction, instrumentation of the CAST gamma calorimeter at CERN
- Responsible for testing and selection of inorganic scintillating crystals
- Development of pulse shape discrimination and particle identification algorithms
- Commissioning, monitoring and DAQ coordinator for the CAST calorimeter *in situ*
- Data reconstruction and analysis of CAST calorimeter first run data

HONORS AND RECOGNITION

APS LeRoy Apker Undergraduate Physics Achievement Award, 2005

National Science Foundation Graduate Research Fellowship, 2005

Dean's List, University of Chicago, 2001 thru 2005

University of Chicago Fire Department Scholar, 2001 thru 2005

RECENT PROFESSIONAL ACTIVITIES

1st CERN-Fermilab Hadron Collider Physics Summer School, FNAL, 2006 (*attendee*)

2nd Joint ILIAS-CERN-CAST Axion Training Workshop, Patras, Greece 2006 (*invited speaker*)

1st Joint ILIAS-CERN-CAST Axion Training Workshop, CERN, 2005 (*attendee*)

PUBLICATIONS AND PROCEEDINGS

Beltran, B. *et al.* "Search for solar axions: The CAST experiment at CERN", Proceedings of the 40th Rencontres de Moriond on Electroweak Interactions and Unified Theories, 2005 (hep-ex/0507007)

Lakic, B. for the CAST collaboration, "Search for Solar Axions: CAST", International Europhysics Conference on High Energy Physics 2005, PoS(HEP2005)022

Miller, D.W. "Search for high energy axions with the CAST calorimeter", Undergraduate Thesis

Zioutas, K. *et al.* "First Results from the CERN Axion Solar Telescope (CAST)" Phys. Rev. Lett. 94, 121301 (2005), (hep-ex/0411033)

Andriamonje, S. *et al.* "First Results from the CERN Axion Solar Telescope (CAST)" Proceedings of the 5th International Workshop on the Identification of Dark Matter, 2004

RELEVANT SKILLS

FORTRAN, C/C++ programming languages

Mathematica, ROOT, L^AT_EX, MS Excel, Kaleidagraph

Linux/Unix and Windows operating systems

Machining (lathe, drill press, *etc.*) and electronics (circuits, NIM, VME *etc.*)

Extensive familiarity with laboratory and research equipment