

Andrew Hard

Résumé

CERN PH Division, B32 RA-14, 1211 Genève, Suisse
(+41) 22 76 30 88 007, (+1) 423 227 4106
andrew.straiton.hard@cern.ch
github.com/rasumovsky

EDUCATION

- Expected 2016 **Doctor of Philosophy** in Physics
University of Wisconsin, Madison WI
Advised by Prof. Sau Lan Wu
- 2010 **Bachelor of Arts** in Physics, Honors
University of Chicago, Chicago IL
Advised by Prof. Edward Blucher

EXPERIENCE

- 2011 - 2016 **Graduate Research Assistant**, *Department of Physics, University of Wisconsin*
- Discovered Higgs boson, performed first measurements of couplings, spin, and mass.
 - Organizer for first $h \rightarrow \gamma\gamma$ coupling measurement.
 - Wrote and coordinated DoE funding reports for Wisconsin ATLAS Group.
 - Characterized CMOS detector with test beam analysis at LBNL and SLAC.
 - Developed data analysis software in C++/ROOT used by many collaborators.
 - Calibrated hadronic E_T^{miss} event trigger, improved S/B , reduced readout rate.
- 2014 **Graduate Teaching Assistant**, *Department of Physics, University of Wisconsin*
- Led discussions and labs on classical mechanics, electrodynamics, thermodynamics.
 - Invented supplemental exercises and summary notes that boosted exam performances.
- 2010 - 2011 **CERN Technologist**, *Enrico Fermi Institute, University of Chicago*
- Expert for the electronic calibration of the ATLAS Experiment hadronic calorimeter.
 - Developed, maintained python software package for detector calibration & monitoring.
 - Published internal documentation, monitored and reported on status to collaboration.

SKILLS

- Scientific** Physics, Mathematics, Statistics, Simulation & Monte Carlo Methods, High Throughput Computing, Numerical Methods for Computing, Data Structures, Machine Learning, Collaborative Research, Publication & Presentation, Teaching, Outreach
- Programming** C++, Python, Java, \LaTeX , Unix/Linux shell scripting, SQL, Matlab, ROOT, TensorFlow
- Languages** English (native), French (basic oral and written communication)

VOLUNTEERING & OUTREACH



- US voter outreach & registration at CERN 2016
- Newtonian physics demonstration for Chicago Public Library 2016
- Discussed research and funding with U.S. lawmakers in D.C. 2014 & 2015
- Created GIF visualizations of Higgs boson discovery data 2013
- Visited classrooms at the Chattanooga School for the Arts & Sciences 2012

AWARDS

- Teaching Assistant Rookie of the Year**, *Department of Physics, University of Wisconsin* 2015
- Lighting Round Winner**, *US LHC User's Association Annual Meeting* 2013 & 2014