# Baojia(Tony) Tong

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### Education

### Harvard University, Massachusetts, MA

Ph.D., Physics, expected May 2017

M.A., Physics, 2014

Committee: Profs. Melissa Franklin (Adviser), Masahiro Morii, Howard Georgi

### California Institute of Technology, California, CA

B.A. with honors, Physics, 2012

### Research Interests

Searches for new physics models with the Higgs Boson Di-boson production and measurement at TeV scale Charged particle prompt reconstruction Detector operation, monitoring and development

### Research Exprience

### Harvard University

Search for $X \to hh \to b\bar{b}b\bar{b}$ using ATLAS 13TeV data	2015-2016
Improvement of Hough Transform in Muon Reconstruction	2015-2016
Development and Organization of Muon Offline Data Monitoring	2015-2016
Prospective study of $hh \to WW\tau\tau$ for High Lumi LHC	2014
Calibration of Harvard Micromega Cosmic Stand	2014
Study of Muon Segments in ATLAS detector using 8TeV data	2012-2013

### California Institute of Technology

Study of Vector Boson + Jets using CMS 8TeV data	2011-2012
Design and validation of an optical sensor for telescopes	2009-2010
Design experiment and study of market convergence	2009-2010
Modeling on novel methods of space launching	2008-2009

## Publications and Talks

<b>Paper</b> Search for pair production of Higgs bosons in the $b\bar{b}b\bar{b}$ final state	2016
Public Notes ATLAS-CONF-2016-049, $hh \rightarrow 4b$ ATLAS-CONF-2016-017, $hh \rightarrow 4b$	2016 summer 2016 spring
Public Talks $hh \rightarrow 4b$ , Higgs Boson And BSM China	2016
ATLAS Talks $hh \to 4b$ , analysis ICHEP ATLAS Approval $hh \to 4b$ , analysis ICHEP Exotics Approval $hh \to 4b/bb\tau\tau/bbWW$ , Exotics Workshop, Grenoble Muon Segment Seeding, Muon Week, Software Muon Hough Transform Tuning, Muon Week, Software Muon Spectrometer and DQ Status, ATLAS Weekly Muon DQ Shifter Manual Muon DQ 2015 Summary, Muon Week, Operations Muon DQ Pre Run II Status, Muon Week, Operations	2016 2016 2016 2016 2015 2015 2015 2015 2015
Teaching Exprience	
Physics Department, Harvard University Mentoring summer research undergraduate students Teaching Fellow, Physics 125, Widely Applied Physics Teaching Fellow, Physics 16, Classical Mechanics and Relativity  Physics Department, California Institute of Technology Teaching Assistant, Physics 50, Physics League	2015-2016 2014 2013 2011-2012
Honors  Harvard White Teaching Prize for Physics 16 Harvard Traveling Scholar Caltech Undergrad Summer Research Fellowship	2014 2015-2016 2009-2012

# Languages and Skills

Chinese (native), English (proficient), French (elementary) C++, HTML, LATEX, Matlab, Mathematica, Python, ROOT