

# Baojia(Tony) Tong

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## Education

**Harvard University**, Massachusetts, MA

Ph.D., Experimental High Energy Physics, expected May 2017

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

M.A., Physics, 2014

**California Institute of Technology**, California, CA

B.A. with honors, Physics, 2012

## Research Interests

New physics production and decay with the Higgs Boson

Di-Higgs Boson production and measurement

Charged particle prompt reconstruction

Detector operation, monitoring and development

## Research Experience

**Harvard University**

Search for  $X \rightarrow hh \rightarrow b\bar{b}b\bar{b}$  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

Prospect study for  $hh \rightarrow WW\tau\tau$  for High Lumi LHC 2014

Calibration of Harvard Micromega Cosmic Stand 2014

Study of Muon Segments in ATLAS detector using 8TeV data 2012-2014

**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

### Paper

Search for pair production of Higgs bosons in the $b\bar{b}b\bar{b}$ final state	2016
Dynamics of Equilibration in the Double Auction Market	2013

### Public Notes

ATLAS-CONF-2016-049, $hh \rightarrow 4b$	2016 summer
ATLAS-CONF-2016-017, $hh \rightarrow 4b$	2016 spring

### Public Talks

Higgs Boson And BSM China: $hh \rightarrow 4b$	2016
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## Teaching Exprience

### Physics Department, Harvard University

Mentoring summer research undergraduate students	2015-2016
Teaching Fellow, Physics 125, Widely Applied Physics	2014
Teaching Fellow, Physics 16, Classical Mechanics and Relativity	2013

### Physics Department, California Institute of Technology

Teaching Assistant, Physics 50, Physics League	2011-2012
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## Honors

Harvard White Teaching Prize for Physics 16	2014
Harvard Traveling Scholar	2015-2016
Caltech Undergrad Summer Research Fellowship	2009-2012

## Languages and Skills

Chinese (native), English (proficient), French (elementary)  
C++, HTML, L<sup>A</sup>T<sub>E</sub>X, Matlab, Mathematica, Python, ROOT