

Curriculum Vitae

YUN JIANG

HEP PhD Student, University of California, Davis

Mailing Address: Department of Physics,
University of California, Davis
One Shields Avenue,
Davis, CA 95616
United States

Email: yunjiang@ucdavis.edu/wing0214@gmail.com

Homepage: <http://particle.physics.ucdavis.edu/hefti/members/doku.php?id=students:jiang>

Phone Number: +1(530)-219-7538

Born: February 14, 1986 - Shanghai, China

Nationality: Chinese

Education

June 2008	Bachelor of Science in Physics GPA: 3.90/4.00	Zhejiang University, China Thesis Advisor: Ding-hui Lu
March 2011	Master of Science in Physics CPA (equivalent to GPA): 5.00/5.00	National University of Singapore Supervisor: Edward Teo
Sep. 2010 - Present	Doctor of Philosophy in Physics GPA: 4.00/4.00	University of California, Davis Supervisor: John F. Gunion

Professional Positions

- Jan. - Dec. 2009 Teaching Assistant in the Physics Department
National University of Singapore
- Sep. 2010 - Present Teaching Assistant in the Department of Physics
University of California, Davis
230AB Quantum Field Theory
245A High Energy Physics
130AB Particle Physics
129A Nuclear Physics

Awards and Honors

- Sep. 2006 First-class Prize, China Undergraduate Mathematical Contest in Modeling
- Feb. 2007 Meritorious Winner, Mathematical Contest in Modeling (MCM), United States
- Sep. 2007 First-class Research Innovation Scholarship, Zhejiang Province, China
- Oct. 2007 Fudi Scholarship, Zhejiang University
- Nov. 2007 China - Singapore Exchange Program Fellowship
- 2008 – 2010 Research Scholarship, National University of Singapore
- Jan.–Mar. 2011 Block Grant Fellowship, University of California
- Jun.–Aug. 2012 UC Davis Graduate Program Fellowship, University of California, Davis
- Sep. 2012–Mar. 2013 US DOE Research Fellowship

Membership

- 2012-Present High Energy Frontier (HEF)-THEORY Division, North American Study
- 2012-2013 2013 SNOWMASS-Young Particle Physicists list

Research Fields

My current research fields mainly focus on the LHC collider phenomenology beyond the Standard Model (SM)

- Higgs bosons phenomenology in the the next-to-minimal supersymmetric Standard Model (NMSSM)
- two-Higgs-doublet model (2HDM) with scalar dark matter extension
- Higgs compositeness
- fourth generation fermion implementation in the various BSMs
- exotic models with large/warped extra dimensions
- top quark physics

I am also interested in the low-scale SUSY breaking model building, low-mass WIMP model building, and the studies on black holes related to the LHC physics.

Research Activities

(i) Paper Publications

- (1) J. F. Gunion, Y. Jiang, S. Kraml, *The constrained NMSSM and Higgs near 125 GeV*, Phys. Lett. B **710** (2012) 454 [arXiv:1201.0982\[hep-ph\]](#)
- (2) J. F. Gunion, Y. Jiang, S. Kraml, *Could two NMSSM Higgs bosons be present near 125 GeV?* [arXiv:1207.1545\[hep-ph\]](#) (accepted by Phys. Rev. D rapid commu.)
- (3) J. F. Gunion, Y. Jiang, S. Kraml, *Diagnosing Degenerate Higgs at 125 GeV*, [arXiv:1208.1817\[hep-ph\]](#) (submitted to Phys. Rev. Lett.)
- (4) G. Belanger, U. Ellwanger, J. F. Gunion, Y. Jiang, S. Kraml, *Two Higgs Bosons at the Tevatron and the LHC?* [arXiv:1208.4952\[hep-ph\]](#) (submitted to JHEP)
- (5) G. Belanger, U. Ellwanger, J. F. Gunion, Y. Jiang, S. Kraml, J. Schwarz, *Higgs Bosons at 98 and 125 GeV from LEP and LHC*, [arXiv:1210.1976\[hep-ph\]](#) (to be submitted to JHEP)
- (6) A. Drozd, B. Grzadkowski, J. F. Gunion and Y. Jiang, *Two-Higgs Doublet Models and Enhanced Rates for a 125 GeV Higgs* (to be submitted to Phys. Rev. D)
- (7) J. F. Gunion, Y. Jiang, S. Kraml, *New 125 GeV-Higgs NMSSM Scenarios* (appear soon)
- (8) D. Dominici, J. F. Gunion and Y. Jiang, *125 GeV Higgs Phenomenology in the Higgs-radion model* (in progress)
- (9) J. F. Gunion, Y. Jiang, S. Kraml, S. Sekmen, *The Current Status of pNMSSM in light of the Recent LHC8 and 2012 XENON100 Data* (in progress)

(10) J. F. Gunion and Y. Jiang, *Beyond the NMSSM–NMSSM₄* (in preparation)

(ii) Thesis

(1) Y. Jiang, *The Phases of Supersymmetric Black Holes in Five Dimensions* (MSc), [pdf~format](#)

(2) Y. Jiang, *NJL Model and its Application in the Mesons* (BS)

(iii) Talks and Presentations

(1) *The constrained NMSSM and Higgs near 125 GeV*, Implication of a 125 GeV Higgs Boson Workshop, LPSC-Grenoble, France, 01/30/2012 [Slides](#)

(2) *125 GeV Higgs*, UCD HEFTI LHC Lunch, Davis, 02/22/2012 [Slides](#)

(iv) Summer Schools and Workshops Attended

Apr. 2011 The Tau Portal Workshop
University of California, Davis

Apr. 2011 SUSY Recast Workshop
University of California, Davis

Nov. 2011 Hidden SUSY Workshop
University of California, Davis

Jan. 2012 School and Workshop on Strongly Coupled Physics Beyond the Standard Model
The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy

Jan. 2012 Implication of a 125 GeV Higgs Boson Workshop
LPSC-Grenoble, France

Apr. 2012 Dark Matter in Collision Workshop
University of California, Davis

Jul. 2012 SSI 2012 “The Electroweak Scale: Unraveling the Mysteries at the LHC”
SLAC National Accelerator Laboratory, Stanford University

(v) Conferences Attended

Nov. 2007 Conference in honor of C.N.Yang’s 85th Birthday
Nanyang Technological University, Singapore

Nov. 2008 Particle Physics, Astrophysics and Quantum Field Theory: 75 Years since Solvay
Institute of Advanced Study, Singapore

Feb. 2010 Conference in honor of Murray Gell-mann’s 80th Birthday
Institute of Advanced Study, Singapore

Computation Skill

- Coding: Fortran, C++, Python
- Editing: LaTeX, Vim
- Plotting: Mathematica, GNUPlot, JaxoDraw
- HEP Packages: NMSSMTools, micrOMEGAs, 2HDMC, FeynRules, MadGraph

Professional Activities

Sep. - Nov. 2008 Student Assistant for PAQFT Conference, IAS, Singapore

Jan. - Feb. 2010 Student Helper Leader for Gell-mann's Conference, IAS, Singapore