CURRICULUM VITAE

Personal Data:

Name:	**Han, Chengcheng**
Inst. :	Kavli IPMU, the university of Tokyo
	Japan
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Email:	chengcheng.han@ipmu.jp, hanchengcheng800@gmail.com
Sex:	Male
Date of Birth:	15 July, 1986
Place of Birth:	Hebei, P. R. China
Marital Status:	Married
Nationality:	China

Education and work experience:

2015.09-present	Kavli IPMU, the university of Tokyo
	Postdoctoral Researcher
2014.09-2015.08	Asia Pacific Center for Theoretical Physics (APCTP)
	Postdoctoral Researcher
2009.09-2014.07	**Ph.D** Candidate of Theoretical Physics,
	Institute of Theoretical Physics,
	Chinese Academy of Sciences.
	Supervisor: Professor Jin Min Yang.
2005.09-2009.06	**B.S.** in Department of Physics,
	Hebei Normal University.

PhD thesis :

Natural Supersymmetry and its phenomenology.

Inspire link :

http://inspirehep.net/search?p=author%3ACheng.Cheng.Han.1%20AND%20collection%3Aciteable

Others :

Referee of PRD,

Leading guest editor in International Journal of Modern Physics A

Publications

In the past years, my studies mainly focused on particle cosmology, supersymmetry theory and phenomenology, LHC physics, dark matter physics and also flavor physics. I have finished totally 39 papers(38 research papers + 1 handbook), with a h-index 20 and total citations 1200+(3 100^+, 4 50^+, handbook not included).

39. **"Gaugino Mediation Scenarios for Muon $g-2$ and Dark Matter"**
    P. Cox, C. Han, T. T. Yanagida and N. Yokozaki.
    arXiv:1811.12699 [hep-ph]
    1 citation

38. **"Vacuum stability in stau-neutralino coannihilation in MSSM"**
    G. H. Duan, C. Han, B. Peng, L. Wu and J. M. Yang.
    arXiv:1809.10061 [hep-ph]
    Phys. Lett. B **788**, 475 (2019)

37. **"Quintessence Saves Higgs Instability"**
    C. Han, S. Pi and M. Sasaki.
    arXiv:1809.05507 [hep-ph]
    Phys. Lett. B **791**, 314 (2019)
    22 citations

36. **"A minimal $U(1)'$ extension of MSSM in light of the B decay anomaly"**
    G. H. Duan, X. Fan, M. Frank, C. Han and J. M. Yang.
    arXiv:1808.04116 [hep-ph]
    Phys. Lett. B **789**, 54 (2019)
    8 citations

35. **"Muon $g-2$ and dark matter in the minimal supersymmetric standard model"**
    P. Cox, C. Han and T. T. Yanagida.
    arXiv:1805.02802 [hep-ph]
    Phys. Rev. D **98**, no. 5, 055015 (2018)
    5 citations

34. **"Searching for the light Higgsinos at the CERN LHeC"**
    C. Han, R. Li, R. Q. Pan and K. Wang.
    arXiv:1802.03679 [hep-ph]
    Phys. Rev. D **98**, no. 11, 115003 (2018)
    2 citations

33. **"Right-handed Neutrino Dark Matter in a U(1) Extension of the Standard Model"**
    P. Cox, C. Han and T. T. Yanagida.
    arXiv:1710.01585 [hep-ph]
    JCAP **1801**, no. 01, 029 (2018)
    4 citations

32. **"LHC Search for Right-handed Neutrinos in Z' Models"**
P. Cox, C. Han and T. T. Yanagida.
arXiv:1707.04532 [hep-ph]
JHEP **1801**, 037 (2018)
13 citations

31. **"Flavoured $B-L$ local symmetry and anomalous rare B decays"**
R. Alonso, P. Cox, C. Han and T. T. Yanagida.
arXiv:1705.03858 [hep-ph]
Phys. Lett. B **774**, 643 (2017)
42 citations

30. **"Anomaly-free local horizontal symmetry and anomaly-full rare B-decays"**
R. Alonso, P. Cox, C. Han and T. T. Yanagida.
arXiv:1704.08158 [hep-ph]
Phys. Rev. D **96**, no. 7, 071701 (2017)
39 citations

29. **"Status of CMSSM in light of current LHC Run-2 and LUX data"**
C. Han, K. i. Hikasa, L. Wu, J. M. Yang and Y. Zhang.
arXiv:1612.02296 [hep-ph]
Phys. Lett. B **769**, 470 (2017)
20 citations

28. **"Handbook of LHC Higgs Cross Sections: 4. Deciphering the Nature of the Higgs Sector"**
D. de Florian *et al.* [LHC Higgs Cross Section Working Group].
arXiv:1610.07922 [hep-ph]
DOI:10.23731/CYRM-2017-002
598 citations

27. **"Surviving scenario of stop decays for ATLAS $\ell + jets + E_T^{miss}$ search"**
C. Han, M. M. Nojiri, M. Takeuchi and T. T. Yanagida.
arXiv:1609.09303 [hep-ph]
Phys. Lett. B **767**, 37 (2017)
6 citations

26. **"Identifying a new particle with jet substructures"**
C. Han, D. Kim, M. Kim, K. Kong, S. H. Lim and M. Park.
arXiv:1609.06205 [hep-ph]
JHEP **1701**, 027 (2017)
3 citations

25. **"Top-squark in natural SUSY under current LHC run-2 data"**
C. Han, J. Ren, L. Wu, J. M. Yang and M. Zhang.
arXiv:1609.02361 [hep-ph]

Eur. Phys. J. C **77**, no. 2, 93 (2017)
22 citations

24. **"KK graviton resonance and cascade decays in warped gravity"**
B. M. Dillon, C. Han, H. M. Lee and M. Park.
arXiv:1606.07171 [hep-ph]
Int. J. Mod. Phys. A **32**, no. 33, 1745006 (2017)
15 citations

23. **"Heavy fermion bound states for diphoton excess at 750 GeV collider and cosmological constraints"**
C. Han, K. Ichikawa, S. Matsumoto, M. M. Nojiri and M. Takeuchi.
arXiv:1602.08100 [hep-ph]
JHEP **1604**, 159 (2016)
28 citations

22. **"Implications of the 750 GeV Diphoton Excess in Gaugino Mediation"**
C. Han, T. T. Yanagida and N. Yokozaki.
arXiv:1602.04204 [hep-ph]
Phys. Rev. D **93**, no. 5, 055025 (2016)
31 citations

21. **"Interpreting the 750 GeV diphoton excess by the singlet extension of the Manohar-Wise model"**
J. Cao, C. Han, L. Shang, W. Su, J. M. Yang and Y. Zhang.
arXiv:1512.06728 [hep-ph]
Phys. Lett. B **755**, 456 (2016)
116 citations

20. **"The diphoton resonance as a gravity mediator of dark matter"**
C. Han, H. M. Lee, M. Park and V. Sanz.
arXiv:1512.06376 [hep-ph]
Phys. Lett. B **755**, 371 (2016)
150 citations

19. **"Apparent unitarity violation in high mass region of M_{bW} from a 'hidden' top partner at high energy colliders"**
C. Han, M. M. Nojiri and M. Park.
arXiv:1512.04855 [hep-ph]
Phys. Lett. B **760**, 775 (2016)
1 citation

18. **"Trail of the Higgs in the primordial spectrum"**
J. O. Gong, C. Han and S. Pi.
arXiv:1511.07604 [hep-ph]
1 citation

17. **"Revealing the jet substructure in a compressed spectrum"**
    C. Han and M. Park.
    arXiv:1507.07729 [hep-ph]
    Phys. Rev. D **94**, no. 1, 011502 (2016)
    9 citations

16. **"$\mathcal{O}(1)$ GeV dark matter in SUSY and a very light pseudoscalar at the LHC"**
    C. Han, D. Kim, S. Munir and M. Park.
    arXiv:1504.05085 [hep-ph]
    JHEP **1507**, 002 (2015)
    11 citations

15. **"Accessing the core of naturalness, nearly degenerate higgsinos, at the LHC"**
    C. Han, D. Kim, S. Munir and M. Park.
    arXiv:1502.03734 [hep-ph]
    JHEP **1504**, 132 (2015)
    44 citations

14. **"SUSY effects in Higgs productions at high energy e^+e^- colliders"**
    J. Cao, C. Han, J. Ren, L. Wu, J. M. Yang and Y. Zhang.
    arXiv:1410.1018 [hep-ph]
    Chin. Phys. C **40**, no. 11, 113104 (2016)
    16 citations

13. **"Probing light bino and higgsinos at the LHC"**
    C. Han.
    arXiv:1409.7000 [hep-ph]
    Int. J. Mod. Phys. A **32**, no. 33, 1745003 (2017)
    23 citations

12. **"New approach for detecting a compressed bino/wino at the LHC"**
    C. Han, L. Wu, J. M. Yang, M. Zhang and Y. Zhang.
    arXiv:1409.4533 [hep-ph]
    Phys. Rev. D **91**, 055030 (2015)
    44 citations

11. **"Constraining Top partner and Naturalness at the LHC and TLEP"**
    C. Han, A. Kobakhidze, N. Liu, L. Wu and B. Yang.
    arXiv:1405.1498 [hep-ph]
    Nucl. Phys. B **890**, 388 (2014)
    43 citations

10. **"SUSY induced top quark FCNC decay $t \to ch$ after Run I of LHC"**
    J. Cao, C. Han, L. Wu, J. M. Yang and M. Zhang.
    arXiv:1404.1241 [hep-ph]

Eur. Phys. J. C **74**, no. 9, 3058 (2014)
22 citations

9. **"A light SUSY dark matter after CDMS-II, LUX and LHC Higgs data"**
J. Cao, C. Han, L. Wu, P. Wu and J. M. Yang.
arXiv:1311.0678 [hep-ph]
JHEP **1405**, 056 (2014)
35 citations

8. **"Probing Light Higgsinos in Natural SUSY from Monojet Signals at the LHC"**
C. Han, A. Kobakhidze, N. Liu, A. Saavedra, L. Wu and J. M. Yang.
arXiv:1310.4274 [hep-ph]
JHEP **1402**, 049 (2014)
114 citations

7. **"A light Higgs scalar in the NMSSM confronted with the latest LHC Higgs data"**
J. Cao, F. Ding, C. Han, J. M. Yang and J. Zhu.
arXiv:1309.4939 [hep-ph]
JHEP **1311**, 018 (2013)
75 citations

6. **"Current experimental bounds on stop mass in natural SUSY"**
C. Han, K. i. Hikasa, L. Wu, J. M. Yang and Y. Zhang.
arXiv:1308.5307 [hep-ph]
JHEP **1310**, 216 (2013)
69 citations

5. **"Higgs pair production with SUSY QCD correction: revisited under current experimental constraints"**
C. Han, X. Ji, L. Wu, P. Wu and J. M. Yang.
arXiv:1307.3790 [hep-ph]
JHEP **1404**, 003 (2014)
54 citations

4. **"Natural SUSY from SU(5) Orbifold GUT"**
C. Han, F. Wang and J. M. Yang.
arXiv:1304.5724 [hep-ph]
JHEP **1311**, 197 (2013)
14 citations

3. **"Two-Higgs-doublet model with a color-triplet scalar: a joint explanation for top quark forward-backward asymmetry and Higgs decay to diphoton"**
C. Han, N. Liu, L. Wu, J. M. Yang and Y. Zhang.
arXiv:1212.6728 [hep-ph]
Eur. Phys. J. C **73**, no. 12, 2664 (2013)
26 citations

2. **"Probing Natural SUSY from Stop Pair Production at the LHC"**
   J. Cao, C. Han, L. Wu, J. M. Yang and Y. Zhang.
   arXiv:1206.3865 [hep-ph]
   JHEP **1211**, 039 (2012)
   82 citations

1. **"Probing topcolor-assisted technicolor from top charge asymmetry and triple-top production at the LHC"**
   C. Han, N. Liu, L. Wu and J. M. Yang.
   arXiv:1203.2321 [hep-ph]
   Phys. Lett. B **714**, 295 (2012)
   19 citations

Awards :

2012-2013	Excellent Academic Performance Scholarship(ITP,CAS).
2012-2013	best-paper Award (ITP,CAS).
2012-2013	Excellent Students Awards (University of Chinese Academy of Sciences).
2008-2009	First Grade Scholarship (Hebei Normal University).
2007-2008	First Grade Scholarship (Hebei Normal University).
2007	Awarded the second Prize in China Undergraduate Mathematical Contest in Modeling.

Part of research activities

2019.02, Higgs as a Probe of New Physics (HPNP2019), Osaka, Japan
"*Quintessence Saves Higgs Instability*";

2018.09, The 4nd Durham-KEK-KIPMU-KIAS Joint Workshop, Tokyo, Japan
"*Quintessence Saves Higgs Instability*";

2017.12, International Symposium on Cosmology and Particle Astrophysics(CosPA), Kyoto, Japan
"*New physics and B anomalies*";

2017.11, The 3nd Durham-KEK-KIPMU-KIAS Joint Workshop, Durham, UK
"*Right hand neutrino dark matter in flavored B-L model*";

2017.03, The Berkeley Center for Theoretical Physics, Berkeley, US
"*Searching for natural SUSY at the LHC*";

2016.10, The 2nd Durham-KEK-KIPMU-KIAS Joint Workshop, Seoul, Korea
"*Recent stop searches in the Natural SUSY*";

2016.03, New Physics Forum, Tokyo, Japan
"*Diphoton excess at the LHC*";

2015.12, IBS-CTPU Focused workshop, Daejeon, Korea
"*Capturing soft signatures @LHC*";

2015.10, New Physics Forum, Tokyo, Japan

"*Revealing the jet substructure in a compressed spectrum*";

2015.09, Kavli-IPMU-Durham-KIAS workshop, Tokyo, Japan

"*Revealing the jet substructure in a compressed spectrum*";

2014.10, The 4th KIAS Workshop on Particle Physics and Cosmology, Seoul, Korea

"*A new approach for detecting compressed bino/wino at the LHC*".