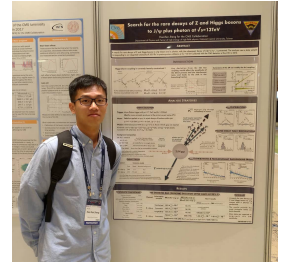


Curriculum Vitae

Personal information

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Education

Sep 2017 – Jun 2019 **National Central University - Physics, M.S.**,
Title of the M.S thesis: *Search for rare decays of Z and Higgs bosons to J/ψ and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV*
Supervised by Professor Chia-Ming Kuo
Sep 2013 – Aug 2017 **National Central University - Physics, B.S.**

Experiences

Jun 2020 – Present **Research assistant** (full-time) of Professor Chia-Ming Kuo
◦ Developing a method to produce proper simulation of background events in the search for the Higgs boson decaying into the $\ell\ell\gamma$ channel
◦ Organizing and lecturing One-day High Energy Physics schools for Taiwanese high school students
Jan 2020 – May 2020 **Military service**
Jun 2019 **Teaching assistant** for the course *Machine Learning in High Energy Physics* of Professor Gunther M. Roland at Massachusetts Institute of Technology
Sep 2017 – Jun 2019 **Research assistant** (part-time) of Professor Chia-Ming Kuo
◦ Based at European Organization for Nuclear Research (CERN) from September to December in 2019, participating in the beamtest of High Granularity Calorimeter (HGCAL) for future upgrade of Compact Muon Solenoid (CMS) experiment
◦ Electron veto efficiency and scale factor measurement for data collected in 2017 and 2018
Sep 2017 – Jun 2018 **Teaching assistant** for the course *Experimental Method and Experimental Physics* of Professor Chia-Ming Kuo
Jul 2015 – Aug 2015 **Summer student** – *University Consortium of ALMA-Taiwan (UCAT) Summer Student Program*, supervised by Professor Chong-Yuan Hwang at Graduate Institute of Astronomy, National Central University
◦ Studying the star formation efficiency in Centaurus A with information from Atacama Large Millimeter/Submillimeter Array (ALMA) and Spitzer Space Telescope

Other activities/responsibilities

2016, 2017 **Shifts in CMS**
◦ Taking shifts in the beamtests of HGCAL hold at CERN in summer

Selected publications & Oral presentations

Papers

- 1 **Search for rare decays of Z and Higgs bosons to J/ψ and a photon in proton-proton collisions at $\sqrt{s} = 13$ TeV**, Eur. Phys. J. C 79 (2019) 94, CMS-SMP-17-012, CERN-EP-2018-250, DOI: 10.1140/epjc/s10052-019-6562-5, [arXiv:1810.10056]

- 2 **Search for the decay of a Higgs boson in the $\ell\ell\gamma$ channel in proton-proton collisions at $\sqrt{s} = 13$ TeV**, JHEP 11 (2018) 152, CMS-HIG-17-007, CERN-EP-2018-092, DOI: 10.1007/JHEP11(2018)152, [arXiv:1806.05996]
- 3 **Beam tests of prototype silicon modules for the CMS High Granularity Endcap Calorimeter**, JINST 13 (2018) no.10, P10023, FERMILAB-CONF-18-595-CMS, DOI: 10.1088/1748-0221/13/10/P10023

Poster presentations

- 1 **Rare decays of the Higgs boson in the $\ell\ell\gamma$ final states in pp collisions at $\sqrt{s} = 13$ TeV**, 2019 Annual Meeting of the Physical Society of Taiwan, National Chiao Tung University, Hsinchu, Taiwan [link to pdf]
- 2 **Search for Z and Higgs boson decaying into $J/\psi + \text{photon}$ in pp collisions at 13 TeV**, 39th International Conference on High Energy Physics (ICHEP) 2018, Seoul, Korea [link to pdf]
- 3 **Study of Z and Higgs boson decaying into $(J/\psi)\gamma$ in pp collisions at $\sqrt{s} = 13$ TeV**, 2018 Annual Meeting of the Physical Society of Taiwan, National Taiwan University, Taipei, Taiwan [link to pdf]
- 4 **Study of a Higgs boson decaying into a $J/\psi + \gamma$ in pp collisions at $\sqrt{s} = 13$ TeV**, Annual Meeting of the Physical Society of the Republic of China (Taiwan) 2017, Tamkang University, Taipei, Taiwan [link to pdf]
- 5 **Study of a Higgs boson decaying into $J/\psi + \gamma$ in pp collisions at $\sqrt{s} = 13$ TeV**, Annual Meeting of the Physical Society of the Republic of China 2016, National Sun Yat-Sen University, Kaohsiung, Taiwan [link to pdf]

Oral presentations

- 1 **Searches for rare decays of the Higgs boson at CMS**, Phenomenology Symposium 2019, University of Pittsburgh [link to my talk/pdf]
- 2 **Study of Higgs and Z boson decaying into $J/\psi + \gamma$ in pp collisions at $\sqrt{s} = 13$ TeV**, Taiwan Korea joint workshop on particle physics 2017, Seoul National University [link to pdf]

Talks given in CMS internal meetings

Including pre-approval and approval talks for one analysis, presentations in Higgs and standard model Physics Analysis Group (HIG- and SMP-PAG) and subgroup meetings, Electron-Photon Physics Object Group (E-Gamma POG) meeting, and HGCal testbeam working meeting

Awards

- 2020 **Excellent Graduate Thesis Award, The Physics Society of Taiwan 2020**
Awarded to master or PhD students graduated in physics-related fields from domestic universities and colleges
- 2017, 2019 **The Phi Tau Phi Scholastic Honor Society of the Republic of China (2 times)**
Awarded to up to 1% of undergraduate graduands or 3% of master's graduands in every domestic university that are excellent in academic performance as well as moral conduct
- 2018 **FOCI Fiber Optic Communications, Inc. Scholarship**
Financial assistance for students studying, doing research, and attending conferences abroad
- 2017 **Excellent Poster Award, Annual Meeting of the Physical Society of the Republic of China (Taiwan) 2017**
- 2017 **SYSAGE Technology Scholarship**
Financial assistance for students studying, doing research, and attending conferences abroad
- 2016 **Zhu-Shun Yi He Qin Scholarship**
Awarded to twelve students with most outstanding academic performance in the school (two students selected from College of Science)

2013 – 2017 **Academic Excellence Award (7 times)**

Awarded to students with the top 5% GPA for that semester

Skills

Language Chinese (native), English (fluent)

Programming/Software C, C++, Python, LaTeX