

# Yue Xu – CV

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<b>Date of Birth</b>	31 <sup>th</sup> December 1994	<b>Email</b>	yue.xu@cern.ch
<b>Nationality</b>	China	<b>Email</b>	xuyuell@icloud.com

## Interests

### Physics analysis

- Standard model Higgs boson and physics beyond the standard model
- Exotic hadrons e.g. tetraquarks and pentaquarks

### Instrumental development

- Development of hadronic tagger
- Track and vertex reconstruction

## Education

<b>2017.09–</b>	Ph.D. Thesis adviser: Xin Chen Department of Physics, Tsinghua University Beijing, China
<b>2013.09–2017.07</b>	Bachelor Degree, Department of Physics, Jilin University Jilin, China

## Research Experience

### ATLAS

- Working on vertex chapter for a paper fully documenting the ATLAS Tracking procedures and performance (2021.10–)
- Measurement of di-jpsi and other possible 4muon final state multiple quarkonium states production in Pb+Pb (2021.05–)
- Low-mass resonance search in the four-muon final state with the ATLAS detector, **contact editor** (2020.07–)
- Search for Generic Heavy Higgs Boson Using 13 TeV p p Collision Data at ATLAS, **analysis contact** (2019.06–)
- TES calibration: E/p measurement and deconvolution method (2018.08–2020.04)

## Phenomenology study

- Search for a generic heavy Higgs at the LHC (2018.08–2020.03)

## CEPC

- check the code of TMVA Boosting Decision Tree (BDT) for Higgs to tau tau decay channel; optimise the BDT code through comparing signal and background (2018.03–2018.10)

## Publications

- Xin Chen, **Yue Xu**, Yongcheng Wu, Yu-Ping Kuang, Qing Wang, Hang Chen, Shih-Chieh Hsu, Zhen Hu, Congqiao Li; Search for a generic heavy Higgs at the LHC; Physics Letters B 804, 135358 (2020); [arXiv:1905.05421]
- Dan Yu, Manqi Ruan, Vincent Boudry, Henri Videau, Jean-Claude Brient, Zhigang Wu, Qun Ouyang, **Yue Xu**, Xin Chen; Higgs to  $\tau\tau$  analysis in the future  $e^+e^-$  Higgs factories; The European Physical Journal C. 80. (2020); [arXiv:1903.12327]
- Fenfen An, et al. ; Precision Higgs physics at the CEPC; Chinese Physics C. 43. 043002. 10.1088/1674-1137/43/4/043002. (2019); [arXiv:1810.09037]

## Talks Presented

- 2021.09** ATLAS results on charmonium production (hep-ex)  
LXXI International conference "NUCLEUS – 2021. Nuclear physics and elementary particle physics. Nuclear physics technologies", online
- 2021.06** ATLAS measurements of CP violation and rare decay processes with beauty mesons (poster)  
The 28th Internatial Workshop on Weak Interactions and Neutrino (WIN2021), online
- 2021.04** Search for Generic Heavy Higgs Boson Using 13 TeV pp Collision Data at ATLAS (hep-ex)  
APS April Meeting 2021, online
- 2020.11** Search for generic heavy Higgs at ATLAS (hep-ex)  
The 6th China LHC Physics Workshop (CLHCP2020), online
- 2020.09** E/p and deconvolution method  
Tau and HLeptons Workshop, online
- 2019.10** Search for a generic heavy Higgs at the LHC (hep-ph)  
The 5th China LHC Physics Workshop (CLHCP2019), Liaoning, China
- 2019.06** E/p Measurement and Shower Uncertainties  
ATLAS Tau Workshop 2019, Prague, Czechia
- 2019.05** Search for heavy Higgs at the LHC (hep-ph)  
23rd Mini-workshop on the frontier of LHC, Chongqing, China

## Software Skills

- **Programming**
  - C/C++
  - ROOT
  - Python
  - Shell Script

- **Generator Package**

- MadGraph
- Pythia

## **Awards**

**2021.10**     Integrated Excellence Scholarship, Tsinghua University, Beijing, China