Zhijie Zhao

Curriculum Vitae

PERSONAL DETAILS

Birth	October 2, 1988
Address	Jevenstedter Strasse 53 c/o Tong, 22547 Hamburg, Germany
Phone	(+49) 1625484722
Mail	zhijie.zhao@desy.de
Nationality	China

EDUCATION

PhD Theoretical Particle Physics 2015.10-2019.01

University of Siegen, Siegen, Germany

PhD Thesis: Multi-Higgs Production at Future Hadron Colliders

Supervisor: Wolfgang Kilian

MSc Atomic and Molecular Physics 2012.09-2015.06

University of Chinese Academy of Sciences, Beijing, China

Master Thesis: Theoretical Research for The Propagation of Intense Femtosecond Laser in Air

Supervisor: Tingting Xi

BSc Opto-Information Science & Technology 2007.09-2011.06

South China Agricultural University, Guangzhou, China

High school and Middle school 2001.09-2007.06

Guangzhou No. 4 Middle School, Guangzhou, China

RESEARCH EXPERIENCE

Postdoc 2019.03-present

Institute of High Energy Physics, Chinese Academy of Science, Beijing, China

My main task is Monte-Carlo simulation and analysis of processes at high energy collider.

Postdoc 2021.12-present

DESY, Hamburg, Germany

I test and tune the codes for Monte-Carlo and detector simulation.

LANGUAGES

Chinese:	native
English:	fluent
Japanese:	fluent
German:	basic knowledge

COMPUTER SKILLS

Operating Systems:	Linux, Windows, MacOS
Coding:	Fortran, C/C++, Python, Shell script, JavaScript
Tools & Libraries	Git, TensorFlow, PyTorch
Other:	Microsoft Office, Mathmatica, LaTeX

PUBLICATIONS

Gravitational waves from axion wave production
Mingqiu Li, Sichun Sun, Qi-Shu Yan, ***ZZ***
arXiv:2309.08407 [hep-ph].

Tuning Pythia8 for future e^+e^- colliders
ZZ*, Mikael Berggren, Jenny List*
LCWS2023 proceedings. [arXiv:2307.15537 [hep-ph]].

Constraining Rare B Decays by $\mu^+\mu^- \to tc$ at Future Lepton Colliders
Sichun Sun, Qi-Shu Yan, Xiaoran Zhao and ***ZZ***
arXiv:2302.01143 [hep-ph].

Improving Heavy Dirac Neutrino Prospects at Future Hadron Colliders Using Machine Learning
Jie Feng, Mingqiu Li, Qi-Shu Yan, Yu-Pan Zeng, Hong-Hao Zhang, Yongchao Zhang, and ***ZZ***
JHEP **09**, 141 (2022) [arXiv:2112.15312 [hep-ph]].

Highly Boosted Higgs Bosons and Unitarity in Vector-Boson Fusion at Future Hadron Colliders
Wolfgang Kilian, Sichun Sun, Qi-Shu Yan, Xiaoran Zhao and ***ZZ***
JHEP **05**, 198 (2021) [arXiv:2101.12537 [hep-ph]].

Prospects of Gravitational Waves in the Minimal Left-Right Symmetric Model
Mingqiu Li, Qi-Shu Yan, Yongchao Zhang and ***ZZ***
JHEP **03**, 267 (2021) [arXiv:2012.13686 [hep-ph]].

Multi-Higgs Production and Unitarity in Vector-Boson Fusion at Future Hadron Colliders
Wolfgang Kilian, Sichun Sun, Qi-Shu Yan, Xiaoran Zhao and ***ZZ***
Phys. Rev. D **101**, no. 7, 076012 (2020) [arXiv:1808.05534 [hep-ph]].

New Physics in multi-Higgs boson final states
Wolfgang Kilian, Sichun Sun, Qi-Shu Yan, Xiaoran Zhao and ***ZZ***
JHEP **1706**, 145 (2017) [arXiv:1702.03554 [hep-ph]].

Probing triple-Higgs productions via $4b2\gamma$ decay channel at a 100 TeV hadron collider
Chien-Yi Chen, Qi-Shu Yan, Xiaoran Zhao, ***ZZ*** *and Yi-Ming Zhong*
Phys. Rev. D **93**, no. 1, 013007 (2016) [arXiv:1510.04013 [hep-ph]].

Femtosecond laser filamentation with a microlens array in air
Tingting Xi, ***ZZ*** *and Zuoqiang Hao*
J. Opt. Soc. Am. B **32**, pp. 163-166 (2015).

Filamentation of femtosecond laser pulses with spatial chirp in air
*Tingting Xi, **ZZ** and Zuoqiang Hao*
J. Opt. Soc. Am. B **31**, pp. 321-324 (2014).