

SHUAIXIANG ZHANG

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EDUCATION

Ph.D. in Experimental Particle Physics

Aug. 2020 – Present

Department of Physics, Indiana University, Bloomington, IN, USA

B.S. in Particle Physics

Sep. 2016 – Jul. 2020

Department of Modern Physics, University of Science and Technology of China, Hefei, China

RESEARCH EXPERIENCES

Deep Underground Neutrino Experiment

Aug. 2020 – Present

- Working on protoDUNEs and PDS (Photon Detection System) (on author list)
- Advised by Prof. Jon Urheim, Department of Physics, Indiana University Bloomington

COHERENT Experiment

Jul. 2019 – Sep. 2019

- Simulations of neutrino flux produced by proton beam for the summer research internship
- Advised by Prof. Diana Parno, Department of Physics, Carnegie Mellon University

Undergraduate Research

Dec. 2017 – Jul. 2018

- Development of Large Area Double-Mesh Micromegas Detector
- Advised by Prof. Jianbei Liu, State Key Laboratory of Particle Detection and Electronics, China

PUBLICATIONS

- A. Abed Abud et al.(DUNE Collaboration) [2024]. The DUNE Far Detector Vertical Drift Technology. Technical Design Report. JINST 19 T08004
- A. Abed Abud et al.(DUNE Collaboration) [2023]. Identification and reconstruction of low-energy electrons in the ProtoDUNE-SP detector. PhysRevD.107.092012
- D. Akimov et al.(COHERENT Collaboration) [2022]. Simulating the neutrino flux from the Spallation Neutron Source for the COHERENT experiment. PhysRevD.106.032003

TALKS & WORKSHOPS

- 2023.08.01: Poster "Computational Graph Model for Photon Propagation in ProtoDUNE-VD", 14th International Neutrino Summer School (in person), Fermilab, USA
- 2024.03.02: Analysis Pipelines workshop (virtual), CERN
- 2024.05.19: Invited talk (Minisymposium) "Neural Network Based Fast Optical Simulation Method in ProtoDUNE-VD", DPF-PHENO 2024, Pittsburgh, PA, USA
- 2025.02.07: DUNE LArTPC Software & Analysis Workshop, CERN

TEACHING AND OUTREACHES

General Physics I (PHYS P201) (Indiana U): Assistant in Instruction	Fall 2023
Theoretical Mechanics (USTC): Assistant in Instruction	Fall 2019

AWARDS

Outstanding Winner in College Physics Experiment of Level 4 (Near-field acoustic holography)	Dec. 2018
Scholarship for Academic Excellence (top 20%)	2017, 2018
Silver Award of Freshman Scholarship	2016