

TAO ZHOU

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EDUCATION

Texas A&M University

Ph.D. in Physics

2021 - Present

Advisor: Kevin Kelly

Sam Houston State University

B.S. in Physics, B.S. in Criminal Justice

Minor in Math

2018 - 2021

EXPERIENCE

Department of Physics; University of Cincinnati

MCgen Fellow

July 2025 - Present

Cincinnati, OH

Department of Physics; Texas A&M University

Graduate Research Assistant

Aug 2023 - Present

College station, TX

Department of Physics; Texas A&M University

Graduate Teaching Assistant

Aug 2021 - Dec 2023

College Station, TX

Department of Physics; Sam Houston State University

Research Assistant

May 2020 – May 2021

Huntsville, TX

Department of Physics; Sam Houston State University

Teaching Assistant

Jan 2020 – May 2021

Huntsville, TX

Academic Success Center; Sam Houston State University

Tutor

Dec 2019 – May 2021

Huntsville, TX

PUBLICATIONS

4. Towards a Robust Confirmation or Refutation of the Sterile-Neutrino Explanation of Short-Baseline Anomalies

Ohana Benevides Rodrigues, Matheus Hostert, Kevin J. Kelly, Bryce Littlejohn, Pedro A. N. Machado, Ibrahim Safa, **Tao Zhou**

Phys.Rev.Lett. 135 (2025) 8, 081801. arXiv: 2503.13594

3. Long-lived vectors from electromagnetic cascades at SHiP

Tao Zhou, Ryan Plestid, Kevin J. Kelly, Nikita Blinov, Patrick J. Fox

JHEP 02 (2025) 107. arXiv: 2412.01880

2. Decaying sterile neutrinos at short baselines

Matheus Hostert, Kevin J. Kelly, **Tao Zhou**

Phys.Rev.D 110 (2024) 7. arXiv:2406.04401

1. Broad sterile neutrinos & the reactor/gallium tension

Hannah Banks, Kevin J. Kelly, Matthew McCullough, **Tao Zhou**

JHEP 04 (2024) 096. arXiv:2311.06352

CONFERENCE PRESENTATIONS

Phenomenology Symposium 2025 Pittsburgh, PA. Speaker: "Did MicroBooNE kill MiniBooNE?"	May 2025
Particle Physics on the Plains 2024 Lawrence, KS. Speaker: "Dark Vector Production from Electromagnetic Secondaries at SHiP"	Nov 2024
Theoretical Astroparticle and Cosmology Symposium in Texas Austin, TX. Fireslide: "Dark vectors from EM secondaries at SHiP"	Oct 2024
DPF-Phenomenology Symposium 2024 Pittsburgh, PA. Speaker: "Decaying Sterile Neutrinos at MicroBooNE"	May 2024
Theoretical Astroparticle and Cosmology Symposium in Texas Houston, TX. Fireslide: "Sterile neutrinos in short-baseline experiments"	Oct 2023
Phenomenology 2021 Symposium Remote conference. Speaker: "SMEFT Effects on the Angular Orientation of Jet Splitting Products"	May 2021

SOFTWARE EXPERIENCE

MC event generator: Pythia8, PETITE, MadGraph
MC event record library: HepMC3
Others: Python(Numpy, Matplotlib, Scipy, Pandas, Numba), Mathematica

HONOR & ACTIVITIES

International Neutrino Summer School <i>Best Poster Award</i>	2025
University of Cincinnati <i>Monte Carlo General Education Network Fellowship</i>	2025 Fall - present
Texas A&M University <i>Department of Physics Fellowship</i>	2021 Fall - 2022 Spring
Texas A&M University <i>Lechner Graduate Scholarship</i>	2021 Fall
Sam Houston State University <i>Outstanding Physics Major Scholarship</i>	2020 Spring
Sam Houston State University <i>Jerry and Jan Calvert Scholarship</i>	2020 Fall
Sam Houston State University <i>Faculty Scholarship</i>	2020 Fall
Sam Houston State University <i>Comparative Criminal Justice Scholarship</i>	2018 Fall
Sam Houston State University <i>President's list</i>	2019 Spring, 2019 Fall, 2020 Spring, 2020 Fall
Sam Houston State University <i>Dean's list</i>	2018 Fall, 2019 Spring, 2019 Fall, 2020 Spring, 2020 Fall, 2021 Spring

COMMUNITY SERVICE

Coordinator

May 2024

2024 Mitchell Conference on Collider, Dark Matter, and Neutrino Physics, George P. and Cynthia Woods Mitchell Institute for Fundamental Physics and Astronomy, Texas A&M University.

Demonstrator

April 2023, April 2024

Physics & Astronomy Festival at Texas A&M University, outreach & demos attended by over 5500 people in the community.

Vice President

October 2019 - September 2020

Asian Pacific Student Association, Sam Houston State University