

Richard Whitehill

Curriculum Vitae

(Updated November 29, 2025)

Old Dominion University
Department of Physics
4402 Elkhorn Ave,
Norfolk, VA 23529

Thomas Jefferson National Accelerator Facility
Theory Center
12000 Jefferson Ave,
Newport News, VA 23606

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EDUCATION

- Old Dominion University [ODU]** *2023 –*
– Ph.D. Student (GPA: 4.0/4.0)
– Research Assistant
– Supervision: Arkaitz Rodas-Bilbao, Nobuo Sato
- Wichita State University [WSU]** *2020 – 2023*
– Bachelor's of Science (Summa Cum Laude, GPA: 3.985/4.0)
– Majors: Physics and Mathematics
– Minor: Computer Science
– Emory Lindquist Honors Scholar
- Kansas Academy of Mathematics and Science [KAMS]** *2018 – 2020*
– Two-year dual enrollment program at Fort Hays State University [FHSU]
- Eisenhower High School** *2016 – 2020*
– Summa Cum Laude (Rank: 1st of 208)

EMPLOYMENT

- Thomas Jefferson National Accelerator Facility**
– Undergraduate Student Research Intern *2021 – 2023*
– Science Undergraduate Laboratory Internship [SULI] *2022*
- Old Dominion University** *2021*
– Research Experience for Undergraduates [REU]
- FHSU PHYS 211L TA** *2019 – 2020*

AWARDS

- DOE Office of Science Graduate Student Research (SCGSR) Program Fellowship *2026*
- JSA/JLab Graduate Fellowship *2025 – 2026*
- Distinguished Performance on the Written Candidacy Exam *2024*
- Brian Donald Diederich and Flavia Alexandra Osorhean Scholarship for Doctoral Research in Nuclear Physics *2023*

- University Fellowship (Temple University) 2023
– declined due to attending ODU
- University Graduate Fellowship (Penn State University) 2023
– declined due to attending ODU
- Rosalee and Alvin Sarachek Award for Scholarly Excellence in the 2023
Natural Sciences
- Dorothy and Bill Cohen Honors College Enhancement Scholarship 2023
- Wayne Pfeiffer Mathematics Endowed Scholarship 2022
- Douglas A. Knight Memorial Scholarship 2022
- Nelson S. Ladd Physics Scholarship 2021 – 2022
- Spirit Aerosystems National Merit Scholar 2020
- College Board National Hispanic Recognition Program Scholar 2020
- WSU Dean’s List
– Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023
- FHSU Dean’s Honor Roll 2018 – 2020
– Fall 2018, Spring 2019, Fall 2019, Spring 2020

SERVICE

- Hampton Roads Science Ambassador Program 2025
- Student Representative for KAMS Director Search Committee 2020

SEMINARS/CONFERENCES

- QCD Evolution 2025 (Jefferson Lab) May 2025
- Positron Working Group Workshop (Jefferson Lab) March 2025
- CTEQ Fall Meeting 2024 (Christopher Newport University) November 2024
- SoLID Opportunities and Challenges of Nuclear Physics at the June 2024
Luminosity Frontier (Argonne National Lab)
- Hampton University Graduate Studies [HUGS] Program (Jefferson Lab) June 2024
- DIS2023: XXX International Workshop on Deep-Inelastic Scattering March 2023
and Related Subjects (Michigan State University)
- CAM Seminar (Wichita State University) September 2022
- Forward QCD: open questions and future directions (University of Kansas) May 2022
– No talk given
- WSU Physics Seminar (Wichita State University) March 2022

PUBLICATIONS

1. **R. M. Whitehill**, M. Cerutti, L. Gamberg, A. Bacchetta
In preparation (2026)
Next-to-leading-power inspired matching models of unpolarized SIDIS structure functions
2. **R. M. Whitehill**, P. Anderson, L. Gamberg, X. Zheng, and N. Sato
In preparation (2026)
On the reconstruction of Breit frame P_{hT} spectra of SIDIS observables
3. **R. M. Whitehill**, M. M. Dalton, T. Liu, W. Melnitchouk, J.-W. Qiu, and N. Sato
In preparation (2025)
Impact of parity-violating deep-inelastic scattering on the weak mixing angle and nucleon strangeness

4. P. C. Barry, A. Prokudin, T. Anderson, C. Cocuzza, L. Gamberg, W. Melnitchouk, E. Moffat, D. Pitonyak, J.-W. Qiu, N. Sato, A. Vladimirov, and **R. M. Whitehill**
Submitted to Phys. Rev. Lett. (2025), [arXiv:2510.13771 \[hep-ph\]](#)
First simultaneous analysis of transverse momentum dependent and collinear parton distributions in the proton
5. J. Y. Araz, V. Mikuni, F. Ringer, N. Sato, F. Torales Acosta, and **R. M. Whitehill**
[Phys. Lett. B **868**, 139694 \(2025\)](#), [arXiv:2410.22421 \[hep-ph\]](#)
Point cloud-based diffusion models for the Electron-Ion Collider
6. J. Karpie, **R. M. Whitehill**, W. Melnitchouk, C. Monahan, K. Originos, J.-W. Qiu, D. R. Richards, N. Sato, and S. Zafeiropoulos
[Phys. Rev. D **109**, 036031 \(2024\)](#), [arXiv:2310.18179 \[hep-ph\]](#)
Impact of Δg sensitive Ioffe-time distributions in QCD global analysis
7. **R. M. Whitehill**, Y. Zhou, N. Sato, and W. Melnitchouk
[Phys. Rev. D **107**, 034033 \(2023\)](#), [arXiv:2210.12295 \[hep-ph\]](#)
Accessing gluon polarization with high- P_T hadrons in SIDIS