

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
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Newport News, VA 23606

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JLab E-mail: whiteric@jlab.org
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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

2021 – 2023

- Undergraduate Student Research Intern

2022

- Science Undergraduate Laboratory Internship [SULI]

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 Natural Sciences 2023
- 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 Luminosity Frontier (Argonne National Lab) June 2024
- Hampton University Graduate Studies [HUGS] Program (Jefferson Lab) June 2024
- DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects (Michigan State University) March 2023
- 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