Samuel J. Bevins linkedin.com/samuel-bevins/

Contact Information

The College of William and Mary, Department of Physics
300 Ukrop Way
Box 842014
Williamsburg, VA 23185
sjbevins@wm.edu

Education

PhD in Physics Aug. 2024 - Present
- College of William and Mary, Williamsburg, VA

B.S. in Mathematics, B.S. in Physics (Dual Degree) Dec. 2023
Concentration in Mathematics
- Virginia Commonwealth University, Richmond, VA
- Graduated Magna Cum Laude in Mathematics and Physics

A.S. of Science in Science May 2021
- Virginia Peninsula Community College, Hampton, VA
- Graduated Magna Cum Laude

Research Experience

Graduate Research Fellow, The College of William and Mary May. 2025 – Present
- Lattice QCD during Summer 2025, Quantum Information Science 2026 and beyond.

VCU Graph Theory Computational Discovery Lab, VCU May. 2025
- Investigations on the balance number of a graph.

Graduate Research Assistant, Virginia Commonwealth University Jan. 2024 – May 2024
- VCU Geometry Group

Undergrad Research Assistant, Virginia Commonwealth University Jun. 2022 – Dec. 2023
- VCU Geometry Group

Science Undergraduate Laboratory Internship (SULI),
U.S. Department of Energy Aug. 2022 – Dec. 2022
- Host laboratory: Thomas Jefferson National Accelerator Facility

VCU Graph Theory Computational Discovery Lab,
Virginia Commonwealth University May 2022
- Topics Explored: Graphs, Knots, and Independence

Science Undergraduate Laboratory Internship (SULI),
U.S. Department of Energy Jan. 2022 – May 2022
- Host laboratory: Thomas Jefferson National Accelerator Facility

Community College Internship (CCI), U.S. Department of Energy Jan. 2021 – May 2021
- Funded by: U.S. Department of Energy
- Host laboratory: Thomas Jefferson National Accelerator Facility
- Mentor: David Richards, PhD

Teaching Experience

Graduate Teaching Assistant, College of William and Mary F24, S25, F25
- Laboratory instructor for physics courses.
- Teaching Assistant for University Physics and Honors University Physics

Mathematics Teacher, Huntington Learning Center Feb. 2024 - Present
- K-12 Mathematics teacher, SAT and ACT Prep Tutor

Graduate Teaching Assistant, Virginia Commonwealth University S24

- GTA for Precalculus

Undergraduate Teaching Assistant, Virginia Commonwealth University F21, Sp23, F23
- Classroom Assistant: Precalculus

Peer Tutor, Virginia Peninsula Community College F20
- Online tutor for Precalculus 1 (College Algebra) and Precalculus 2 (Trigonometry)

Publications

1. M. Aldi, **S. Bevins**, Chatzitheodoridis, S Da Silva, Q. Frias, T. M. Gomez. (2026) THE DE RHAM COHOMOLOGY RING OF NILMANIFOLDS ASSOCIATED WITH PATH GRAPHS *In Preparation*
2. M. Aldi, **S. Bevins**. (2023) 2-step Nilpotent L_∞-algebras and Hypergraphs *Journal of Pure and Applied Algebra*, no. 107593. Available here

Presentations

1. M. Aldi, **S. Bevins**. L_∞-cohomology of Completely Prunable Hypergraphs.
   - Joint Mathematics Meetings, PME Contributed Session on Research by Undergraduates. (Jan. 2024)
   - Virginia Academy of Sciences Annual Meeting. (May 2024)
2. M. Aldi, **S. Bevins**. L_∞-cohomology of Completely Prunable Hypergraphs. Poster Presentation at the Mid-Atlantic Algebra, Geometry, and Combinatorics (MAAGC) Workshop. (Dec. 2023)
3. M. Aldi, **S. Bevins**. L_∞-algebras and Hypergraphs. Presented at
   - Joint Mathematics Meetings, AMS Contributed Paper Session on Commutative Rings and Algebras, and Algebraic Geometry. (Jan. 2023)
   - Central States Math Undergraduate Research Conference. (Feb. 2023)
   - ODU Mathematics Awareness Conference. (Apr. 2023)
   - International Mathematics and Statistics Student Research Symposium (Apr. 2023)
   - MD-DC-VA MAA Spring 2023 Meeting (Apr. 2023)
   - 101^{st} Annual Meeting of the Virginia Academy of Sciences (May. 2023)
4. **S. Bevins**. Results on the L_∞-Cohomology of Completely Prunable Hypergraphs. VCU Discrete MathemaTea Invited Talk. (Sep. 2023)
5. M. Aldi, **S. Bevins**. L_∞-algebras and Hypergraphs. VCU Poster Symposium for Undergraduate Reserach and Creativity. (Apr. 2023)
6. **S. Bevins**. Introduction to Hypergraphs and L_∞-Algebras. VCU Student Geometry Seminar. (Feb 2023)
7. **S. Bevins**, D. Richards. Fast Pions on the Lattice. SULI Poster Presentation at Thomas Jefferson National Accelerator Facility. (Dec. 2022)
8. **S. Bevins**. Lie Algebras and Graphs. Presented at
   - VCU Math Grad Coffee Hour Invited Discussion. (Dec 2022)
   - VCU Student Geometry Seminar (Sep. 2022)
9. **S. Bevins**. Lie Algebra Cohomology. VCU Student Geometry Seminar. (Nov. 2022)
10. **S. Bevins**, D. Richards. High Momentum Pions on the Lattice. SULI Poster Presentation at Thomas Jefferson National Accelerator Facility. (Apr. 2022)
11. **S. Bevins**, D. Richards. Pions at High Momentum. CCI Poster Presentation at Thomas Jefferson National Accelerator Facility. (Apr. 2021)

Upper Level Coursework (VCU)	- MATH 502 (Abstract Algebra I), MATH 602 (Abstract Algebra II) - MATH 592 (Teaching and Communicating Mathematics) - MATH 507 (Bridge to Modern Analysis), MATH 707 (Functional Analysis) - MATH 511 (Applied Linear Algebra), MATH 610 (Advanced Linear Algebra) - MATH 556 (Graph Theory) - MATH 690 (Research Seminar)
Upper Level Coursework (W&M)	- PHYS 601 (Classical Mechanics) - PHYS 603 (Mathematical Physics) - PHYS 621 (Quantum Mechanics I), PHYS 622 (Quantum Mechanics II) - PHYS 610 (Classical Electrodynamics I) - PHYS 630 (Statistical Mechanics and Thermodynamics)
OEIS Contributions	- A360937, A361014, A360936, A360625, A360572, A360571, A363378, A361230, A362007, A364579, A364946, and A368135.

Technical Skills	Programming:	Matlab, Python, SageMath, Mathematica, PennyLane (minimal)
	Markup:	LaTeX, Word, Excel, Markdown
	Operating Systems:	Windows, MacOS, Raspberry Pi OS, Linux