

- **Independent tutor** for high school and college students in physics and math 2016–2018
Teaching concepts, assisting with revision, developing problem solving skills
- **Teaching Assistant** for introductory laboratories at VANDERBILT 2016–2018
Taught physics, engineering, and life science students labs on topics including mechanics, energy, and pressure (Gen. Phys. I) and electromagnetism, optics, and circuits (Gen. Phys. II)
- **Contributor** to open-source habit building program, HABITICA 2017
Updated and maintained wiki documentation and wrote quest scripts
- **Volunteer** at BROOKHAVEN NATIONAL LABORATORY’s Summer Sundays program 2016
Demonstrated tabletop experiments to the public
- **Teaching assistant** in the VANDERBILT STUDENT VOLUNTEERS FOR SCIENCE program 2015
Taught basic robotics and programming to middle schoolers using LEGO Mindstorm robots
- **Teaching assistant** for General Physics I & II at HOUGHTON 2012–2015
Equipment preparation, assisted students with experiments and in-class problem solving, graded homework, offered regular help sessions outside of class time
- **Grader** in the Physics Department at HOUGHTON 2012–2015
Modern Physics homework sets and Experimental Physics Laboratory I & II lab reports
- **Volunteer** at Sigma Zeta science honors society at HOUGHTON 2012–2013
Assisted with organization and technical operations for public science days

RELEVANT
PAPERS

- Aidala, C. *et al.* including **Morrow, S. I.** Creation of quark-gluon plasma droplets with three distinct geometries. *Nat.Phys.* **15**, 214-220 (2019).
- **Morrow, S. I.** (for the PHENIX collaboration). PHENIX results on elliptic and triangular flow from the small-system geometry scan at 200 GeV. *Nuc.Phys.A* **982**, 471-474 (2019).
- **Morrow, S. I.** (for the PHENIX collaboration). PHENIX results on collectivity in small systems. In *Proc. 2018 Thirteenth Conference on the Intersections of Particle and Nuclear Physics*. <https://arxiv.org/abs/1810.05321>
- Haring-Kaye, R. **Morrow, S. I.**, Döring, J., Tabor, S., Le, K. Q., Allegro, P. R. P., Bender, P. C., Elder, R. M., Medina, N. H., Oliveira, J. R. B. & Tripathi, V. Multiple band structures in ^{70}Ge . *Phys.Rev.C* **97**, 024308 (2018).
- Aidala, C. *et al.* including **Morrow, S. I.** Measurements of azimuthal anisotropy in $d+\text{Au}$ collisions at $\sqrt{s_{NN}}=200, 62.4, 39,$ and 19.6 GeV. *Phys.Rev.C* **96**, 064905 (2017).
- Dungan, R., Tabor, S. L., Tripathi, V., Volya, A., Kravvaris, K., Abromeit, B., Caussyn, D. D., **Morrow, S. I.**, Parker, J. J., Tai, P.-L., & VonMoss, J. M. Radiative decay of neutron-unbound intruder states in ^{19}O . *Phys.Rev.C* **93**, 021302 (2016).
- Haring-Kaye, R., Elder, R. M., Döring, J., Tabor, S., Volya, A., Allegro, P. R. P., Bender, P. C., Medina, N. H., **Morrow, S. I.**, Oliveira, J. R. B. & Tripathi, V. Coexisting single-particle and collective excitations in ^{70}As . *Phys.Rev.C* **92**, 044325 (2015).
- **Morrow, S. I.** A Study of Weak Magnetic Focusing. *Bachelor’s thesis, Houghton College*, supervised by M. Yuly (2015).

INVITED
TALKS

RHIC results on collectivity in small systems

Jun 2018

RHIC & AGS Annual Users’ Meeting, Upton, NY

	<u>PHENIX results in small systems</u>	May 2018
	Thirteenth Conference on the Intersections of Particle and Nuclear Physics, Palm Springs, CA	
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PRESENTED TALKS	<u>Tiny drops of quark soup from mini Big Bangs</u>	Mar 2019
	Three Minute Thesis Competition 2019, Vanderbilt University, Nashville, TN	
	<u>Elliptic and triangular flow with geometry-engineered small systems</u>	Oct 2018
	DNP/JPS Joint Fall Meeting, Waikoloa Village, HI	
	<u>PHENIX results on collectivity in $d+Au$ collisions from 200 to 19.6 GeV</u>	May 2018
	Quark Matter, Venezia, Italy	
	<u>$d+Au$ BES $v_n(p_T)$ Progress Report</u>	Dec 2017
	PHENIX Winter Collaboration Meeting 2017, Upton, NY	
	<u>PHENIX results on anisotropic flow in $d+Au$ collisions from 19.6 to 200 GeV</u>	Oct 2017
	Department of Nuclear Physics Annual Meeting, Pittsburgh, PA	
PRESENTED POSTERS	<u>A Study of Weak Magnetic Focusing</u>	May 2015
	XXXIV Annual Rochester Symposium for Physics Students, Oswego, NY	
	APS Conference for Undergraduate Women in Physics, Piscataway, NJ	Jan 2015
	<u>Searching for Rigid Triaxial Deformation in ^{70}Ge</u>	Nov 2013
	Penn-York Undergraduate Research Conference 2013, Bradford, PA	
	Ohio College Summer Science Symposium, Delaware, OH	Jul 2013
	<u>Creation of quark-gluon plasma droplets with three distinct geometries</u>	Feb 2019
	AAAS Annual Meeting, Washington, DC	
	<u>A Study of Weak Magnetic Focusing</u>	Nov 2014
	Penn-York Undergraduate Research Conference, Houghton, NY	
XXXIII Annual Rochester Symposium for Physics Students, Rochester, NY	Apr 2014	
SCHOLARSHIPS, FELLOWSHIPS, COMPETITIVE AWARDS	<u>γ Vibrational Band in ^{70}Ge</u>	Jan 2014
	APS Conference for Undergraduate Women in Physics, State College, PA	
	Department of Nuclear Physics Annual Meeting, Newport News, VA	Oct 2013
	Ohio College Summer Science Symposium, Delaware, OH	Jul 2013
	Graduate	
	• Most Outstanding Student Publication award	2019
	• The Akunuri V. Ramayya Award (for teaching)	2018
	• Vanderbilt graduate school travel award	2017, 2018
	• Vanderbilt graduate school summer research award	2018
	• Vanderbilt physics department McMinn summer research award	2016, 2018
• AAAS Mass Media Science and Engineering Fellow at <i>Discover</i>	2017	
• Honorable mention for the NSF Graduate Research Fellowship Program	2015	

Undergraduate

- Nancy Bidwell Barcus Award for an Exceptional Junior writing major 2014
 - Summer research fellow at Florida State University 2014
 - Faculty Excellence Award for Literary Non-Fiction at Houghton College 2013
 - NSF REU summer research fellow 2013
 - President's Scholarship at Houghton College 2011–2015
 - First place team award in First Year Science Honors program at Houghton College 2012
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RESEARCH EXPERIENCE

Research Assistant in Ph.D. program Aug 2015–Sep 2019
Vanderbilt University Advisor: Dr. Julia Velkovska

- Analysis of relativistic heavy-ion collisions with the PHENIX collaboration (dissertation project)

Research Assistant as undergraduate student Aug 2013–May 2015
Houghton College Advisor: Dr. Mark Yuly

- Modeled and upgraded beam focus of a student-built cyclotron (thesis project)

Research Assistant as undergraduate student Summer 2014
Florida State University Advisor: Dr. Samuel Tabor

- Identified new decay modes of oxygen-19 from gamma ray spectra

Research Assistant as NSF REU student Summer 2013
Ohio Wesleyan University Advisor: Dr. Robert Haring-Kaye

- Identified new decay modes of germanium-70 from gamma ray spectra

Science Honors student as undergraduate student Aug 2011–May 2012
Houghton College Advisors: Dr. Mark Yuly,
Dr. Jamie Potter,
Dr. John Rowley

- Designed and built hydrogen fuel cell powered go-cart
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EXPERIMENTAL EXPERIENCE

- **PHENIX experiment** at Brookhaven National Laboratory: ~192 hours on shift (data monitor, DAQ monitor) at the RHIC accelerator during $d+Au$ collisions 2016
 - **John D. Fox accelerator lab** at Florida State University: ~80 hours on shift during collisions (DAQ monitor, detector upkeep) Summer 2013, 2014
 - **Mini cyclotron** at Houghton College: Around 100 hours designing and testing upgrades to the cyclotron to focus beam 2013–2015
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PROFESSIONAL WORKSHOPS

- Participant in the AAAS Dialogue on Science, Ethics, and Religion (DoSER) workshop at the AAAS Annual Meeting 2019
- Participant in the AAAS Catalyzing Advocacy for Science and Engineering (CASE) workshop at Vanderbilt University 2017
- Graduate teaching assistant representative for Vanderbilt at the Cottrell Scholars National Teaching Assistant Workshop 2017