

Zachary Glassman

☎ (856)-571-4277 • ✉ zach.glassman@gmail.com • 🌐 zacharyglassman.com

Education

M.S. in Chemical Physics

University of Maryland

2014-Present

College Park, MD

B.A. in Physics and Mathematics

Pomona College

2014

Claremont, CA

Research Experience

Graduate Research Assistant

Joint Quantum Institute, NIST and University of Maryland

2014-Present

College Park, MD

- Worked within NIST Laser Cooling and Trapping Group on a Sodium Bose-Einstein condensation apparatus
- Experimentally studied coherent spin-mixing dynamics in a mixture of condensed and thermal atoms
- Theoretically studied quantum enhanced interferometry in a spinor BEC system
- Part of team constructing new ultra-cold atom apparatus

Research Assistant

Department of Physics and Astronomy, Pomona College

2012-2014

Claremont, CA

- Performed spectroscopic studies on diatomic molecules in both the microwave and optical regimes
- Created models incorporating data from all energy regimes into single analysis

Research Assistant

Department of Mathematics, Claremont McKenna College

2013-2014

Claremont, CA

- Studied embeddings of metric spaces in the context of universal metric spaces, in particular the Urysohn universal metric space
- Studied Time-oriented Lorentzian Manifolds

Research Intern

Department of Physics, Yale University

2011

New Haven, CT

- Created lab module for undergraduate students exploring Brownian motion

Relevant Skills

- **Technical** - Python, Jupyter/IPython, HTML/CSS, Javascript, \LaTeX , git, slurm, LabView, Matlab, Firebase
- **Laboratory** - Lasers, optics, hardware control and automation, real-time data processing, image processing, electronics, ultra-high vacuum

Honors and Awards

2014: Flagship Fellow, University of Maryland

2014: NIST/Chemical Physics Fellowship, NIST and University of Maryland

2014: Chemical Physics Fellowship, University of Maryland

2014: Richard P Edmunds Physics Prize, Pomona College

2014: Distinction in Thesis, Pomona College Department of Physics and Astronomy

2013: Steven Chu Award - runner up, California-Nevada APS

2013: Tileston Junior Physics Award, Pomona College

2011: Tileston Freshman Physics Award, Pomona College

Publications

1. "The hyperfine interaction in the odd isotope of ytterbium fluoride, ^{171}YbF "- *Journal of Molecular Spectroscopy*, Volume 300, Pages 7-11.
2. Aksoy AG, Glassman Z., Kosheleva O., Kreinovich V. , "From Urysohn's Universal Metric Space to a Universal Space-Time," *Mathematical Structures and Modeling*, Vol.2. No.28, 2013, pages 28-34.

Professional Experience

\LaTeX Illustrator

2014-Present

Department of Mathematics, Pomona College

Claremont, CA

- Worked with Professor Stephan Garcia on illustrating A Second Course in Linear Algebra as well as a course in Real Analysis and other mathematics papers

Physics Teaching Assistant

2011-2013

Department of Physics and Astronomy, Pomona College

Claremont, CA

- In class teaching assistant for introductory Mechanics and E&M for physics majors as well as lab teaching assistant for non-physics majors
- Graded upper level undergraduate Quantum Mechanics and freshman physics for potential physics majors

\LaTeX Specialist and Quantitative Skills Center (QSC) Fellow

2013-2014

Quantitative Skills Center, Pomona College

Claremont, CA

- As a QSC fellow, mentored in both large and small group sessions for \LaTeX
- Created a live presentation on the basics of \LaTeX .

Tutor

2008-Present

Madison, CT, Pomona College, University of Maryland

- Tutored students in Knot Theory, Analysis, Algebra, Geometry, Calculus, Basic Math, Introductory Mechanics, and Electricity and Magnetism