

# Zoey Warecki

## Curriculum Vitae

204 E. Joppa Rd  
Towson, Maryland, 21286

☎ (631) 204 7467

✉ [zwarec1@students.towson.edu](mailto:zwarec1@students.towson.edu)

### Education

2010-2014 **B.S. Physics**, Mathematics Minor, *Towson University*, Towson, MD.

### Research

- 2013-Present *Structural & electrical properties of electron-doped  $\text{CaMnO}_3$  thin films* (Capstone Research)
- Summer 2014 *Determining nanostructure quality via ultrafast emission spectroscopy for enhanced water-splitting photocatalysis* (Department of Energy Internship at Brookhaven National Laboratory)
- 2012-2013 *Expanded solar-system limits on violations of the equivalence principle* ([Published paper](#))
- Summer 2012 *Characterization of beam emittance with Monte Carlo simulations* ([Cornell University REU](#))

### Research Presentations

- October 2014 Poster at the APS Mid-Atlantic Meeting at Pennsylvania State University ([Link](#))
- August 2014 Invited talk to Materials Theory Group at ETH Zurich, Switzerland
- August 2014 Talk at the International Conference for Physics Students (ICPS) in Heidelberg, Germany
- March 2014 Talk at the APS March Meeting in Denver, CO ([Undergraduate Session](#))
- January 2014 Poster at the Conference for Undergraduate Women in Physics at University of Maryland
- January 2014 Talk at the 223<sup>rd</sup> American Astronomical Society Meeting, Washington DC
- April 2013 Talk at the 7<sup>th</sup> Annual Gulf Coast Gravity Meeting at University of Mississippi
- January 2013 Poster at the Conference for Undergraduate Women in Physics at Caltech

### Awards, Scholarships, & Research Grants

- Fall 2014 Towson University Commencement Speaker for the Fisher College of Science and Mathematics
- Spring 2014 National Society of Physics Students (SPS) [Award for Outstanding Undergraduate Research](#). One of two US recipients. Individual scholarship, scholarship for local SPS chapter, travel to ICPS 2014
- 2014 John Rubendell Award for Outstanding Senior in the Physics Department
- 2013-2014 TU Fisher College of Science and Mathematics Undergraduate Research Grant
- 2013-2014 TU Office of Undergraduate Research Grant
- 2013 Best Presentation Scholarship at the TU Honors College Celebration of Scholarship and Learning
- 2012 Pelham Award for Outstanding Junior in the Physics Department
- 2010-2014 NSF SPEED-UP Scholarship, Department of Physics Scholarship, Honors College Scholarship, Towson University Provost Scholarship

### Relevant Work Experience

- Spring 2015 **DOE Science Undergraduate Laboratory Internship (SULI)**, LAWRENCE BERKELEY NATIONAL LABORATORY, BERKELEY, CA.  
Tevye Kuykendall, Inorganic Facility at the Molecular Foundry.
- Summer 2014 **DOE SULI**, BROOKHAVEN NATIONAL LABORATORY, UPTON, NY.  
Matthew Sfeir, Center for Functional Nanomaterials. Synthesized zinc oxide nanowires using atomic layer deposition, sputtering, and hydrothermal growth. Characterized the nanowires with scanning electron microscopy and ultrafast emission spectroscopy. Chosen to give talk to the Chemistry department at the end of the internship.

- 2012-2014 **Learning Assistant**, TOWSON UNIVERSITY PHYSICS DEPARTMENT.  
 PHYS 211 (Physics I for non-majors), PHYS 241 (Physics I for majors), and PHYS 342 (Intermediate Lab II). Giving demonstrations to classes of 100+ students, assisting in lab sections, tutoring.
- 2012-2014 **Course Grader**, TOWSON UNIVERSITY PHYSICS DEPARTMENT.  
 Graded for PHYS 241 & 242, the Physics I & II for majors.
- Summer 2012 **Research Experience for Undergraduates**, LEPP, CORNELL UNIVERSITY.  
 Dave Rubin, Cornell Electron Storage Ring - Test Accelerator. Performed Monte Carlo simulations to find the reason for the discrepancy between theoretical numbers calculated for the beam width and actual data taken.
- 2012-2013 **Orientation Leader**, TOWSON UNIVERSITY NEW STUDENT PROGRAMS.  
 Helped organize *Welcome to Towson* and acclimated freshmen to campus. Mentored group of 20 students.

## Society of Physics Students (SPS) Involvement

- TU Chapter President 2013-2014, Outreach Coordinator 2011-2013  
 Organized and led officer meetings and general meetings, coordinated 2013 SPS Zone 4 Meeting held at Towson, organized volunteers for outreach events, increased membership especially among freshmen and sophomore students, applied for and received a \$300 White Marsh Outreach Grant from SPS National, submitted the 2012-2013 chapter report which awarded us Outstanding Chapter.
- National Article for the *SPS Observer* on perovskite metal oxides ([Link](#))

## Computer skills

PYTHON, FORTRAN90, HTML, LINUX, LABVIEW,  $\text{\LaTeX}$ , MATHEMATICA, ORIGIN, MICROSOFT WINDOWS