
Ilana Bromberg

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EDUCATION

Stony Brook University, Stony Brook, NY

Bachelor of Science, May 2020

Women in Science and Engineering (WISE) Honors Program

Majors: Physics and Astronomy

Minor: Art History

GPA: 3.55

SKILLS

Computational

- Highly proficient in Java, C++/ROOT, Fortran, MCNP, and Python
- Skilled with Matlab, Microsoft Office, and Github

Other

- Well versed in data and error analysis
- Comfortable working with large data sets
- Experience working with Photoshop and other image editing programs
- Intermediate Mandarin Chinese speaker

RESEARCH EXPERIENCE

Weinacht Group for Ultrafast Spectroscopy & Coherent Control

Stony Brook, NY

Research Student, September 2018 – Present

- Laser spectroscopy research under the guidance of Prof. T. Weinacht
- Analysis of isotopes under vacuum ultraviolet (VUV) radiation

Columbia REU - Radiological Accelerator Research Facility (RARAF)

Nevis Labs, Irvington, NY

Research Intern, Summer 2019

- Designed physical collimation for a neutron spectrum to limit radiation exposure on a mouse sample to the chest cavity - done in MCNP

PHENIX Undergraduate Research Group

Stony Brook, NY

Research Student, September 2016 – August 2018

- Created macros in C++ using CERN's ROOT framework to track proton paths in a collider and optimize the positions of Roman Pot detectors

Computational Astronomy Research Group

Stony Brook, NY

Student, November 2016 – Present

- Weekly meetings for the analysis and discussion of computational topics, including black hole mergers and gravitational waves under the guidance of Professor M. Zingale
- Individual work and guidance from Professor A. Caulder for supernova applications and utilization of the FLASH code

Stony Brook WISE Research Rotation

Stony Brook, NY / Brookhaven National Laboratory

Student, January 2017 – May 2017

- Hands-on analysis of freezing water droplets for cloud formation.
- Modeled the consumption and creation of elements in a white dwarf star.

LEADERSHIP & ACTIVITIES

Fencing Club

Stony Brook, NY / Rocky Point, NY

Treasurer, May 2017 – May 2018

- Organized club fundraisers
- Booked trips all over the country for tournaments, including hotels, transportation, admission fees, and other travel expenses
- Managed the club budget and payment records

AWARDS

Presidential Scholarship, 2016

- Full academic scholarship at Stony Brook University

CAS Dean's Excellence Scholarship, 2016

- \$1000 merit-based scholarship