

WILLIAM R. SAUNDERS

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EDUCATION

Boston University, Boston, MA

Sept. 2018 - Present

Ph.D. Student in Astronomy

University of Pennsylvania, Philadelphia, PA

Aug. 2014 - May 2018

B.A. in Physics & Astronomy, *summa cum laude*, with honors

GPA: 3.81/4

Concentration in Astrophysics

Minors in Mathematics, History

RESEARCH EXPERIENCE

Mars Occultation of Epsilon Geminorum

Mar. 2019 - Present

Supervisors: Paul Withers (BU), Mike Person (MIT)

Boston, MA

- Re-Analysis of 1976 stellar occultation of Mars using new computational techniques.
- Interpretation of atmospheric results in context of modern understanding of Martian atmosphere.

**Development of Efficiency Simulator for Detecting Planet
Nine using the Dark Energy Survey**

Sept. 2015 - May 2018

Supervisor: Gary Bernstein

University of Pennsylvania, Philadelphia, PA

- Senior Honors Thesis.
- Research supported by NASA Pennsylvania Space Grant

**Impact of Ice on Evolution of Protoplanetary Disks and
Formation of Planetary Systems**

June - Aug. 2017

Supervisor: Uma Gorti

Ames Research Center, Moffett Field, CA

- NASA Summer Internship.
- Presented at 231st Meeting of AAS.
- Awarded 3rd Place in Penn Research Symposium

Survey of the Galactic Plane with PAPER

Aug. 2012 - June 2015

Supervisor: James Aguirre

University of Pennsylvania, Philadelphia, PA

- Used Precision Array for Probing the Epoch of Reionization (PAPER) to identify supernova remnants and other sources on the galactic plane at 145 MHz.
- Awarded 4th Place Physics in the Westchester Science and Engineering Fair 2014.

- Received American Meteorological Association Award.
- Received Acorda Scientific Excellence Award.

TALKS AND PRESENTATIONS

231st AAS Meeting, Washington D.C. Jan. 8 - 12, 2018

Impact of Ice on the Evolution of Protoplanetary Disks and Formation of Planetary Systems

- Poster presentation.

Meeting of the National Astrobiology Institute Aug. 2017

Impact of Ice on the Evolution of Protoplanetary Disks and Formation of Planetary Systems

- Talk given on summer research.
- Poster presented at NASA Ames Research Center summer research symposium.
- Published in NASA Ames Research Center Abstract and Poster Book. NASA/SP-219877 127.

Yale Undergraduate Research Conference, New Haven, CT Feb. 2017

Optimizing Difference Imaging to Identify Trans-Neptunian Objects using the Dark Energy Survey

- 2017 Plenary Speaker

Astrophilly Conference, Villanova, PA Aug. 2016

Optimizing Difference Imaging to Identify Trans-Neptunian Objects using the Dark Energy Survey

- Talk given to astronomy professionals in the Philadelphia area.

AWARDS AND HONORS

NASA Pennsylvania Space Grant Scholarship 2017 - 2018

University Scholar Dec. 2015 - May 2018

Dean's List 2014 - 2018

University Physics Competition Silver Medalist Jan. 2016

National Merit Scholar 2014

WRITING EXPERIENCE

Astrobites Writer Jan. 2019 - Present

- Write astronomy research summaries for graduate-student run astronomy daily website Astrobites.org.

Editor-in-Chief, *FOCUS* Student Newspaper Sept. 2013 - June 2014

- Editor-in-Chief of high school newspaper.

TEACHING EXPERIENCE

Tutor, Dept. of Physics, University of Pennsylvania

2015 - 2018

- Tutor for introductory physics classes.

TECHNICAL SKILLS

Programming Languages

Python, MATLAB, LaTeX, Mathematica, Unix

ORGANIZATIONAL MEMBERSHIP

American Astronomical Society

American Physical Society