

Stephen Michael Revesz

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EDUCATION

Florida International University

2012 - 2018

B.S. in Physics / Minor in Astronomy

RESEARCH INTERESTS

- Active Galactic Nuclei, Quasars, Blazars
- Extra-Solar Planet Detection and Characterization
- Ion Propulsion (Gridded, Hall-Effect, Miniaturization, 3D Printing)

RESEARCH EXPERIENCE

Ultrafast Spectroscopy and Quantum Optics - Advisor: Dr. Hebin Li

2019

- Learning to build, calibrate, and collect data with a collinear femtosecond 4-pulse photocurrent spectrometer to study multidimensional coherent spectroscopy

FIU ExoPlanet Transit Survey

2018 - Today

- Began a survey to detect transits with the Stocker AstroScience Center 0.6-m telescope
- Current objective: testing the sensitivity of the telescope for $\Delta F/F \approx 1\text{-}2\%$ dips

Assistant Observational Astronomer - Supervisor: Dr. James Webb/Mike Smith

2015 - Today

- On-site use of the 0.6-m telescope at the Stocker AstroScience Center (>100 solo nights)
- Allowed telescope time by the SARA Consortium on Kitt Peak, Chili, and La Palma facilities
- Trained on all procedures regarding CCD image processing, color combining, and further data processing/analysis in Python

Undergraduate Researcher - Advisor: Dr. James Webb

2015 - 2018

- Gathered and reduced observational optical data for numerous blazars for model fitting
- Studied the jet structure near the SMBH during a luminous outburst of Bl Lac 2200+420

Ion Thruster Design Proposal - Supervisor: Dr. James Webb

2016 - 2018

- Designed a modular ion propulsion thruster for more efficient repairability
- Future projects included: Zero-g 3D printing techniques, magnetic funnel designs

TEACHING

Florida International University

PHY 2048L: Intro. Physics Laboratory 1 (Teaching Assistant) - Supervisor: Dr. Wang/ Dr. Guo

- Fall 2018 (3 sections); Summer 2019 (4 sections)

PHY 2049L: Intro. Physics Laboratory 2 (Teaching Assistant) - Supervisor: Dr. Wang/ Dr. Guo

- Spring 2019 (6 sections)

PHY 2049: Physics 2 W/ Calculus (Learning Assistant) - Professor: Dr. Mueller

- Fall 2018 (1 section)

PHY 4605: Quantum Mechanics 2 (Learning Assistant) - Professor: Dr. Hebin Li

- Spring 2019 (1 section)

PROFESSIONAL ASSOCIATIONS

American Physical Society (APS)	2012 - Today
Southeastern Association for Research in Astronomy (SARA)	2014 - Today
Society of Physics Students (SPS)	2016 - Today
Sigma Pi Sigma Physics Honor Society ($\Sigma\Pi\Sigma$)	2016 - Today
Advancement for Women in STEM (AWSTEM)	2017 - 2018
Southern Cross Astronomical Society (SCAS)	2014 - 2018

PUBLICATIONS

Energetics and Region Size of a Minor Luminous Outburst in 2200+420 (BL Lac)

Stephen Revesz and Dr. James Webb
2018 - In Review for Galaxies Journal

FIU Ion Propulsion Engine (FIRE) Proposal with Modular Acceleration Grid

Stephen Revesz and Dr. James Webb
2016 - Never Published

CONFERENCES

2016 FIU Undergraduate Research Conference

Poster presentation on “*Energetics and Region Size of a Minor Luminous Outburst in 2200+420*”

2017 FIU Undergraduate Research Conference

Poster presentation on “*FIU Ion Propulsion Engine Proposal*”

84th Annual Meeting of APS Southeastern Section

Poster presentation on “*FIU Ion Propulsion Engine Proposal*”

“Hubble” Talk for Southern Cross Astronomical Society

Held a lecture seminar on the history of the Hubble Space Telescope detailing its past and current discoveries, including its turbulent history in the beginning.

SKILLS (PROGRAMS)

Microsoft/Apple Software • Photoshop/Illustrator CS6 • Rhino3D • AutoCAD • ACE Smartdome
Maxim DL (CCD Imager) • Mira PRO (CCD image reduction/analysis) • SAOImagerDS9

SKILLS (CODING)

Python 2.7/3.0 (Expert/Proficient) • Java (Intermediate) • LaTeX (Intermediate) • IDL
(Beginner)

OUTREACH / AWARDS

Sigma Pi Sigma Physics Honors Society & Society of Physics Students

Inducted for my work at the Stocker AstroScience Center as observational astronomer and on independent research into building an ion propulsion engine.

President - Astronomy Club at FIU

2017 - 2018

Lead the executive board towards a club that focused on outreach and collaboration between a variety of clubs to promote science communication. Focused on our weekly public nights at the observatory called Saturday Night Stargazing, summer camps to inspire the future generation of scientists, and several other outreach initiatives.

Southern Cross Astronomical Society Scholarship Awardee

2017 -

2018

Recognized for the research and outreach done with Dr. James Webb at the Stocker AstroScience Center with a prestigious scholarship for the academic year.

Saturday Night Stargazing

2016 - 2018

Once a week on Saturday nights, myself or any of the other student astronomers at the facility open the observatory to the public for tours, Q&A sessions, and looking through the telescopes.

STEM Summer Camps

2016 -

2018

Organized summer cap excursions for middle school students with the Society of Physics Students and Sigma Pi Sigma Physics Honors Society to showcase fun and interesting physics demonstrations. Tours of the observatory, various hands-on experiments for the kids like nitrogen ice cream, and solar telescopes are a small example of demonstrations used to inspire the younger generation.

Telescope Workshops

2016 - 2018

Once per semester I hold a workshop to instruct students on how to operate the observatory at the Stocker AstroScience Center and give them a run down on the image reduction processes. The night starts with shadowing the students as they setup the Celestron 11" telescopes. The students are then instructed as to the procedures for controlling the observatory, all the necessary calibration images required for any observations, and any troubleshooting that could be encountered through the night. The goal of the workshop is to inspire students to take on the role of student observational astronomers for the facility.