David Setton

Curriculum Vitae

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Research focus: observational galaxy formation and evolution through cosmic time

Education

2019– Present **University of Pittsburgh**, Ph.D Candidate in Physics.
Advisor: Professor Rachel Bezanson

May 2019 **University of Pittsburgh**, M.S. in Physics.

May 2017 **University of Arizona**, B.S. in Physics and Astronomy.
Advisor: Professor Gurtina Besla
Thesis: Characterizing the Bow Shock of the Large Magellanic Cloud

Research Experience

May 2018-Present **Studying the Spatially Resolved Stellar Populations of Post Starburst Galaxies**.
Studying a population of z∼0.6 post-starburst galaxies in the SQuIGG$\vec{L}$E survey using spatially resolved GMOS spectroscopy and Hyper-Suprime Cam imaging.
Advisor: Professor Rachel Bezanson

Jan 2016-Present **Characterizing the Large Magellanic Cloud Bow Shock**.
Used high resolution infall simulations to characterize the size, shape, and observability of the a predicted bow shock that should precede the LMC's infall.
Advisor: Professor Gurtina Besla

July-November 2016 **Separating AGN and Starburst Activity using Spatially Resolved Spectroscopy**.
Created a pipeline to spatial pixels of galaxies in the SAMI survey by their spectral line ratios to characterize emission sources.
Advisor: Professor Lisa Kewley

Sep. 2014 - May 2015 **High-z Galaxies in the Hubble Frontier Fields**.
Created a software pipeline to photometrically identify high-z galaxies in the Hubble Frontier Fields.
Advisor: Dr. Christopher Willmer

Talks and Presentations

Feb. 2020 **Aspen Galaxy Quenching Workshop**, *Poster*, Aspen, CO.
"Flat Age Gradients in Massive z∼0.6 Post-Starburst Galaxies"
Awarded "Martin and Beate Block Winter Award for Promising Young Physicists"

Jan. 2017 **229th Meeting of the American Astronomical Society**, *Poster*, Grapevine, TX.
"Characterizing the Bow Shock of the Large Magellanic Cloud"

May 2016 **Lucy Engal Undergraduate Physics Symposium**, *Talk*, Tucson, AZ.
"Characterizing the Bow Shock of the Large Magellanic Cloud"

Mar. 2016 **2nd Magellanic Clouds Workshop**, *Talk*, Tucson, AZ.
"Characterizing the Bow Shock of the Large Magellanic Cloud"

May 2015 **Lucy Engal Undergraduate Physics Symposium**, *Talk*, Tucson, AZ.
"Creating a Software Pipeline to Identify and Classify High Redshift Galaxies in the Deep Fields"
Awarded "Best Undergraduate Talk

Apr. 2015 **Arizona Space Grant Symposium**, *Talk*, Tempe, AZ.
"Measuring the UV Luminosity Function of High Redshift Galaxies"

Scholarships, Honors, and Grants

Feb. 2020 **Martin and Beate Block Winter Award**.

Acad. Year 16-17 **Cubic Corporation Scholarship**.

Acad. Year 16-17 **Krane Scholarship**.

Acad. Year 16-17 **Phi Beta Kappa Travel Grant**.

Acad. Year 16-17 **Glenn C. Purviance Scholarship**.

Acad. Year 15-16 & 16-17 **Galileo Circle Scholarship**.
Highest Honor Awarded by University of Arizona College of Science

Fall 2016 **Honors College Study Abroad Scholarship**.

Fall 2016 **Donna Swaim Travel Abroad Scholarship**.
Awarded to 2 of 83 Applicants

Acad. Year 14-15 **Angelos C. Langadas Scholarship**.

Acad. Year 14-15 **Arizona Space Grant Internship**.

Teaching Experience

Acad. Year 19-20 **AP Physics C: Mechanics + Electricity & Magnetism**, *Tutor*.
Taylor Allderdice High School

Acad. Year 18-19 **Deitrich School of Arts and Sciences Teaching Assistant Mentor**.
University of Pittsburgh

Spring 2018 **ASTRON 0089: Stars, Galaxies, and Cosmos**, *Teaching Assistant*.
University of Pittsburgh
Received Myron P. Garfunkel Excellence in Graduate Student Teaching Award

Fall 2017 **ASTRON 0088: Stonehenge to Hubble**, *Teaching Assistant*.
University of Pittsburgh

Fall 2017 **ASTRON 0087: Basics of Spaceflight**, *Teaching Assistant*.
University of Pittsburgh

Spring 2017 **PHYS 141: Introduction to Mechanics**, *Preceptor*.
University of Arizona

Spring 2017 **PHYS 241: Introduction to Electricity & Magnetism**, *Preceptor*.
University of Arizona

Students Supervised

Mar. 2020-Present **Maggie Verrico**, *University of Pittsburgh Undergraduate*.
Studying the Morphologies of z$\sim$0.6 Post-Starburst Galaxies

Outreach

Apr. 2019 & 2020 **Pittsburgh Public School Research Symposium Judge**, *Taylor Allderdice High School*.
2020: Chair of Judging Committee

Nov. 2018 **Astronomy on Tap Pittsburgh**, *Franktuary*, Speaker.
"The Puzzling Counter Intuitiveness of Special Relativity"

Aug. 2015 - May 2017 **College of Science Ambassador**, *University of Arizona*.
Recruitment and outreach events to recruit STEM undergraduates from Arizona high schools

Sep. 2014 - May 2017 **Steward Observatory Telescope Operator**, *University of Arizona*.
Operated the 21" telescope on campus for undergraduate classes and public visit nights

References

Graduate Thesis Advisor	**Rachel Bezanson**, *Assistant Professor, University of Pittsburgh*. rachel.bezanson@pitt.edu
Graduate Thesis Committee Member	**Jenny Greene**, *Professor, Princeton University*. jgreene@astro.princeton.edu
Collaborator	**Mariska Kriek**, *Associate Professor, University of California, Berkeley*. mkriek@berkeley.edu
Undergradutate Thesis Advisor	**Gurtina Besla**, *Associate Professor, University of Arizona*. gbesla@email.arizona.edu

Publications

4. Extended Post-Starburst Signatures in Massive z∼0.6 Galaxies in the SQuIGG$\vec{L}$E Survey
Setton, D. and the SQuIGG$\vec{L}$E Team, in prep.

3. The SQuIGG$\vec{L}$E Survey— Studying Quenching in Intermediate-z Galaxies: Gas, Angular Momentum, and Evolution Suess, K.A. and the SQuIGG$\vec{L}$E Team, in prep.

2. ALMA reveals a wide range of H_2 in the SQuIGG$\vec{L}$E Survey of Massive Post-starburst Galaxies at $z \sim 0.6$
Bezanson, R. and the SQuIGG$\vec{L}$E Team, in prep.

1. The Role of Active Galactic Nuclei in the Quenching of Massive Galaxies
Greene, J., **Setton, D.**, Bezanson, R., Suess, K.A., Kriek, M., Spilker, J., Feldmann, R., Goulding, A. Submitted to ApJ

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