JAKOB M. HELTON

jakobhelton@email.arizona.edu ⋄ +1 (304) 360 0337
github.com/jakobhelton/ ⋄ jakobhelton.github.io ⋄ linkedin.com/in/jakobhelton/

CURRENT POSITION

A first-year graduate student at the University of Arizona pursuing a Ph.D. in astronomy, with research interests in observational extragalactic astrophysics and cosmology. Member of the James Webb Space Telescope (JWST) Advanced Deep Extragalactic Survey (JADES).

EDUCATION

University of Arizona *August 2021 - Present*
Degree: M.S. and Ph.D. Cumulative GPA: 4.00
Concentration: Astronomy Departmental GPA: 4.00

Princeton University *September 2017 - May 2021*
Degree: Bachelor of Arts Cumulative GPA: 3.66
Concentration: Astrophysical Sciences Departmental GPA: 3.76

PUBLICATIONS

4. **J. M. Helton**, A. I. Zabludoff, K. D. French, et al., *The spatially resolved star formation histories of post-starburst galaxies in SDSS-IV MaNGA*, in preparation
3. **J. M. Helton**, A. L. Strom, J. E. Greene, et al., *The nebular properties of star-forming galaxies at intermediate redshift from the Large Early Galaxy Astrophysics Census*, ApJ, in review
2. **J. M. Helton**, S. D. Johnson, J. E. Greene, et al., *Discovery and origins of giant optical nebulae surrounding quasar PKS0454−22*, 2021, MNRAS, 505, 4
1. S. Aiola, E. Calabrese, et al., including **J. M. Helton**, *The Atacama Cosmology Telescope: DR4 Maps and Cosmological Parameters*, 2020, JCAP, 12, 047

PRESENTATIONS

6. *Discovery and origins of giant optical nebulae surrounding quasar PKS0454−22.* Poster presentation at the 237th American Astronomical Society Meeting (January 2021).
5. *Discovery and origins of giant optical nebulae surrounding quasar PKS0454−22.* Oral presentation at Princeton University's Galread (August 2020).
4. *The physical conditions in 0.6 < z < 1.0 galaxies from LEGA-C.* Poster presentation at the 235th American Astronomical Society Meeting (January 2020).
3. *On the extended line-emitting nebulae surrounding quasar-host galaxies.* Poster presentation at the Princeton University Research Day (May 2019).
2. *On the extended line-emitting nebulae surrounding quasar-host galaxies.* Poster presentation at the Stanford University Research Conference (April 2019).
1. *On the extended line-emitting nebulae surrounding quasar-host galaxies.* Oral presentation at Drexel University's Quasar Day Meeting (February 2019).

TELESCOPE ALLOCATIONS

Keck/MOSFIRE Near-Infrared Spectroscopy, 0.5 Nights (Co-I)
Magellan/FIRE Near-Infrared Spectroscopy, 6.5 Nights (Co-I)
Magellan/IMACS Optical Spectroscopy, 2.0 Nights (Co-I)

SKILLS

Programming Languages	Python, IDL, Java, Javascript, HTML
Software & Tools	Unix, Excel, LaTeX, TensorFlow, FIREHOSE
Observing	Keck/MOSFIRE, Magellan/IMACS, Magellan/LDSS3

EXTRA-CURRICULARS

McGraw Center for Teaching and Learning January 2018 - May 2021
Head Tutor for Single-Variable Calculus, Multi-Variable Calculus, and Linear Algebra

Carnegie Observatories, Carnegie Institution for Science June 2020 - August 2020
Student Mentor for the Carnegie Astrophysics Summer Student Internship Program

Department of Astrophysical Sciences, Princeton University January 2020 - August 2020
Organizer for the department-wide Galread Extragalactic Discussion Group

Department of Physics, Princeton University January 2019 - January 2020
Undergraduate Teaching Assistant for Introductory Physics Labs (Mechanics and Electromagnetism)

REFERENCES

Prof. Ann Zabludoff	University of Arizona	aiz@arizona.edu
Prof. Marcia Rieke	University of Arizona	mrieke@arizona.edu
Prof. Sean Johnson	University of Michigan	seanjoh@umich.edu
Prof. Jenny Greene	Princeton University	jgreene@astro.princeton.edu
Dr. Allison Strom	Princeton University	allison.strom@princeton.edu