## **Dec 2025**

Serving the KU Astronomy and Space community across all space/time coordinates.

Issue No. 3

## space/time

Welcome to the third edition of **space/time**, the newsletter of the KU Astronomy & Space Physics group. Winter started with a bang on Mount Oread, with five inches of snow closing KU campus on December 1<sup>st</sup>. But the rhythm of astronomy continues in Malott Hall, with a regular cadence of undergraduate and graduate astronomy classes, seminar talks, journal club discussions, outreach, and more.

This is an exciting year for us: though records are spotty, our best evidence points to KU astronomy first starting in 1876. **The 150**<sup>th</sup> **anniversary of KU astronomy** is rapidly approaching! To celebrate this special moment, we have several exciting announcements in this action-packed issue:

- First: join us January 5<sup>th</sup> in Phoenix for a southwestern KU reunion. (page 3)
- Then: join us May 8<sup>th</sup> in Lawrence for SpaceFest 2026. (page 3)
- Also: plans are afoot for a new campus observatory. (see page 5)

Plus inside you'll find a full range of updates: two student profiles (*page 2*), updates and photos of KU students and faculty at recent, regional conferences (*pages 4-5*), and updates from alumni spanning sixty years (*page 6*).





### Student Profiles:

Physics PhD grad Ashley Lieber (Page 2)

Astronomy & Physics BS Madeline Evenson (*Pg. 2*)

### **Faculty Profile:**

Prof. Ian Crossfield (Pg. 3)

#### **Alumni Events:**

SpaceFest 2025 (May '25) Phoenix, AZ (Jan '26) SpaceFest 2026 (May '26) (Page 3)

## **Regional Meetings:**

(Pages 4-5)

A New Observatory (Page 5)

#### Recent Graduates:

Spring 2025 degrees and awards (*Page 6*)

Alumni Updates: (p6)

Profs. Hume Feldman and Tom Cravens both retired and were celebrated at SpaceFest (see *page 3*).

Prof. Betsy Mills received tenure, and is now an Associate Professor.

Prof. Allison Kirkpatrick was named the Department's Undergraduate Teacher of the Year.

Prof. Mikhail Medvedev was an inaugural recipient of the College's Research Product Awards.

Prof. Ian Crossfield was awarded \$460,000 from the NSF to study stellar chemical abundances.

Prof. Jennifer Delgado was promoted to full Teaching Professor. She also received KU's Kemper Fellowship Teaching Award (one of only five awarded campus-wide).

## **Student Awards:**

PhD student Maleah Rhem was awarded the prestigious NSF Graduate Research Fellowship, making her the first KU grad-student astronomer to receive this award.

Feaster Award: Madeline Evenson, Michael Wieber, and Owen Zafuta.

Johnson Scholarship: Judith Hogan and Madeline Evenson.

Prosser Scholarship: Varun Kore.

Stranathan Scholarship: Brady Dunn and Christopher Jennings

Talty Scholarship: Dayne Locke

Undergraduate Research Awards: Christian Argueta, Evan Barkus, Brady Dunne, Kris Ryan.

Barbara Anthony-Twarog Award: Lucciana Caceres Holgado, Kim Conger, and Kaitlyn Sheriff

Dean's Doctoral Fellowship: Gregory Troiani

Ralston Summer Fellowship: Kim Conger

Kat Herink was the first recipient of the department's mysterious Pirate Studies Licentiate.



# MEET THE STUDENTS

## Student Profile: Ashley Lieber (PhD `28):

I was excited by the prospect of the research I could conduct at KU, as well as the supportive community that would let me grow personally and professionally into the scientist I want to be.

I especially appreciate how involved everyone is: in outreach events, journal clubs, and weekly seminars. This is a clear sign of people's passion and curiosity at every level. I also enjoy the many opportunities for outreach. Nothing beats engaging our local

community in astronomy through our telescopes and planetarium!

With high-resolution data from the Atacama Large Millimeter Array (ALMA) I study molecular emission from super star clusters in nearby galaxies. These molecular lines trace the clusters in order to determine the evolution of these clusters, their impact on the surroundings over their lifetimes, and how massive clusters shape the evolution of entire galaxies.

Post-KU, I am equally passionate about both expanding knowledge through research as well as communicating science with the public. My

## Student Profile: Madeline Evenson (BS `26):

I study astronomy at KU due to KU's emphasis on academic excellence and its broad range of faculty research. I have found a home here with KU Astrophysics due to the inclusive & welcoming community and the inspiring faculty support.

My favorite aspects of KU astronomy have been research conferences, close friendships with fellow undergraduates, and undergraduate research. I also deeply enjoy KU's public outreach events and attending astronomy seminars.

I have been working with Dr. Rudnick in the KU Galaxy Group since my sophomore year, where I am analyzing archival Herschel galaxy data to measure photometry and light profiles of galaxies in the Virgo Filament Survey. I recently completed an astrophysics REU at Northwestern University in summer 2025, where I investigated connections between the emission line spectra and morphological properties of high-redshift galaxies.

I will graduate from KU in May 2026 with a BS in both astronomy and physics, along with a minor in dance. Afterwards, I will attend graduate school to continue researching galaxies and pursue my lifelong goal of becoming a professor of astrophysics.

I also work as a dance instructor & choreographer for children of all ages, and am passionate about promoting female and LGBTQ+ representation in STEM. I plan to continue building safe and inclusive spaces that empower the next generation of LGBTQ+ scientists to grow and succeed.



Madison and Lila Self Graduate Fellowship has also piqued my interest in science policy advocacy as another potential path. My parents met at KU as undergrads, where they studied aerospace engineering and elementary education. It has been a "full circle moment" for me to attend KU, especially since their influences are so clear in my passions for science and education.

I enjoy cooking and baking as a way to de-stress, I also enjoy many crafting hobbies such as watercolor and scrapbooking, and have found a wonderful community here in Lawrence who shares those interests



## SpaceFest!

In May we celebrated KU's first SpaceFest, a new annual meeting series celebrating our astronomy and space science expertise. This kick-off meeting celebrated the careers of Profs. Tom Cravens and Hume Feldman, who both retired from the department in May.

Over sixty alumni, staff, and current students attended the meeting. In particular, ten alums who had worked closely with Tom & Hume gave personal retrospectives on their work and time spent with them here at KU (and beyond)

Afterwards, SpaceFest participants stayed in Lawrence and joined

us for the annual, end-of-year department banquet.

## **JOIN US for SpaceFest 2026**

- to be held on May 8th - when we will celebrate 150 years of KU astronomy and the life & career of Prof. Sergei Shandarin.

Please email <u>ianc@ku.edu</u>, or visit https://physics.ku.edu/spacefest2026

## Reunions & Meetings

KU students traveled to many regional meetings this semester, as shown in these photos.

At right: ~twenty KU astronomy students and faculty attended and presented for the day-and-a-half Mid-America Regional Astronomy Conference (MARAC) at the University of Missouri.

At bottom: the ExoLab drove to Madison and back for the Great Lakes Exoplanet Area Meeting (GLEAM) 2025 in November.

Below: KU astronomers Maleah Rhem, Jason Pero, and Craig Brooks @ NSBP/NSHP in San Jose.



Furthermore, we have a special opportunity in January: **Join us on Jan. 5**<sup>th</sup> **in Phoenix** for a KU Astronomy Reunion dinner for any alumni, students, staff, faculty, or friends. Come hear the latest about KU, Malott Hall, our new observatory plans, and more.

Just email <a href="mailto:ianc@ku.edu">ianc@ku.edu</a> and follow the details as we update the event website at:







## A New KU Observatory

KU's Tombaugh Observatory on Lindley Hall has exemplified KU Astronomy for 80 years; many alumni consider their experiences there to be the hallmark of their time at KU. However, although the 140-year-old Clark refractor is still sound, the building has fallen into disrepair and needs to be replaced.

Preliminary plans are thus underway for a **new campus observatory**. This facility would be located next to Slawson Hall (home of our Planetarium) near Naismith Drive and 15th Street, just a short walk from Allen Fieldhouse. This new KU Observatory would be seen & visited by tens of thousands of visitors each year. The new building

would house our historic refractor and also provide a space for student teaching, large public gatherings, and future KU Astronomy events.

Stay tuned for more information on this process in the year ahead, as we strive to continue KU's 150-year legacy of connecting Kansans to the wonders of the night sky.



(preliminary rendering by Prof. Chas Kraus, KU Architecture)



## **Silent Sky**

is a 2015 play about early-20th-century astronomer Henrietta Leavitt, most famous for her discovery of the period-luminosity relation for Cepheid variable stars. This relationship helped measure accurate distances to other galaxies and ultimately set the stage for modern cosmology.

KU Theatre performed this play in October, providing the opportunity for lots of cross-pollination of art and science between our respective departments. KU astronomers talked about the science & history on local radio, and students provided telescope viewings to audience members.

Free State High School in Lawrence will perform the show in February; let us know if you attend!

## **Prof. Ian Crossfield**

just celebrated six years on the faculty. Here at KU he leads the KU ExoLab, which focuses on the discovery of new extrasolar planets, their detailed (and especially atmospheric) characterization, and high-resolution spectroscopy of nearby dwarf stars. With Prof. Delgado he also helps coordinate outreach activities, particularly the KU planetarium.

ExoLab student researchers work with data from NASA's space telescopes (*JWST*, *HST*, *TESS*, and more), from ground-based observatories in Hawaii and Chile, on atmospheric modeling and theory, and even on science reference cases for new space missions.

He usually teaches ASTR 391, ASTR 691, and the new graduate-level Stars & Planets course.



ExoLab PhDs, L to R: Crossfield, Alex Polanski, David Coria, Yoni Brande.

## Have You Seen Us?

As we work to reconnect with alumni like you, we find many instances of outdated contact information (email, mailing address, etc.). If you are in touch with any of these KU astronomers, please encourage them to contact us at ianc@ku.edu:

Donald L. Schumacher Astro, '62 Jack G. Hills Astro '66. MA '67 Astro '68 O. Thomas Wells Jr. Astro '79 Ronald D. Schmidt Astro '83 Merle D. Reinhart, Jr. Bret D. Goodrich Astro '83 PhD '84 Keith E. Propp Roger A. Herndon Astro '87 Henry A. Driskill Astro '88

PhD '95 Randall J. Splinter Patrick Harrington Jr. Physics '95 PhD '97 Capp D. Yess John J. Howard Astro '97 Physics '01 Scott T. Clark Kelley A. Liebst Astro '10 Brian S. Schafer Astro '13 Jack Webster Astro '19 Muhammed B. Ciftci Ast. Minor, '20 Maxine A. Case Ast. Minor, '22

## Alumni Profiles

KU Astro & Space alums find their way to all corners of the Earth – and occasionally even beyond! Some stay in academia while many others venture out into the real world. To keep in touch with us, please:

- Send us all your latest successes and adventures at work or at home. (send to <u>ianc@ku.edu</u>).
- Share with us your latest email and mailing address.
- Join our LinkedIn group "<u>University of</u> Kansas Astronomy Students, Alumni, and Friends."

And finally, remind your fellow alums to check in with us, too!

#### Robert Krisko (BS `60):

"I graduated in Astronomy and Math. I had an NSF fellowship to study Mars' atmosphere. but weather throughout the year negated that plan. I taught at Van Horn High School, Kansas City. I turned down an offer to be Assistant Director of the St Louis Planetarium (then under construction) and was instead KU's and Kansas City's first Peace Corps volunteer in the first group sent overseas by JFK. After teaching Science and Math for two years in Ghana, I studied Anthropology at Columbia University and KU, and then pursued a career in Educational Leadership, retiring in 2008. I spent 51 years in Wyoming until moving 'back home' near Kansas City."

[Robert is looking through the telescope on page 1!]

## Robert Dixon (MA `66, PhD `70)

"Recently retired after 44 years teaching physics, astronomy, energy, geologic history, atmospheric science and a special topic course in the physics of field events for the track team at Haskell Indian Nations University. I was appointed as the first faculty athletics representative to the NAIA."

#### Jackie Milingo (BS `93):

She is the new Director of Astronomy at Maria Mitchell Observatory on Nantucket Island. After graduating from KU, Jackie went to study under Dick Henry (also a KU alum, BS `77) at Oklahoma. She was at Gettysburg College for about 20 years, then a AAAS Science and Technology Policy Fellow at NSF until starting at Maria Mitchell in August.

#### S. Will Chambers (PhD '05)

"I am a senior director in the aerospace & defense industry where I lead the application of artificial intelligence, autonomy & robotics to national security challenges."

#### Jan Kurzidim (MS `05):

"I'm a senior data scientist in the private sector, after a stint with the Austrian Institute of Technology."

## Kelly Kabler (nee Sanders, BS `07)

"Last year I finished the Space Science Graduate Certificate Program at Wichita State and work at Spirit Aerosystems as a project manager for Spirit Defense and Space. When I'm able, I volunteer at a local observatory just outside of Wichita, doing outreach events for the public."

#### Brent Hartley (BS `10):

"Now a father of three, very happily married, near the beach in San Juan Capistrano, CA. I hit my 10year milestone working for the University of California. I became passionate about working in higher education, and now lead a team of academic innovators to help students and build relevant workforce skills. One of the most rewarding aspects of my job is hiring and mentoring our paid student interns. It is a great honor to be able to provide them with the same opportunity I had as a student, knowing the role it played in helping me success find and happiness."

#### Samantha Brunker (BS `15)

"I am now teaching astronomy at NorthWest Arkansas Community College after finishing a postdoc at U. Connecticut on 3D models of molecular clouds in the Galactic center. I finished my PhD at Indiana University in May 2022, where I worked on extreme star-forming Green Pea galaxies."

#### S. Carin Gavin (BS `18):

"In 2025 I received my PhD Northwestern, and I accepted a postdoctoral position at the University of Chicago's Pritzker School of Molecular Engineering! This job will include working at Argonne National Laboratory, plus travel to work at the Advanced Institute for Materials Research at Tohoku University with Shun Kanai. Words don't really do justice to how thrilled and humbled I am. Here's to exciting academic journeys!"

### Casey Carlile (BS `21):

The proud mother of a 1.5 year old son; finishing up her Astronomy PhD at UC San Diego.

## **Recent Graduates:**



## Astro BA/BS 2025:

Arish Ali

**Brady Dunne** 

Camryn Wheeler

Christian Argueta

**Evan Barkus** 

Joseph Hand

## **Astrobiology Minor:**

Evan Barkus
Lillian Connelly
(Anthropology BS)
Jonas Potter
(Physics BS)
Daniel Sikes
(Geography BS)

## Physics PhD (astronomy focus):

Jonathan Brande advisor: Crossfield now: U. of Maryland

David Coria advisor: Crossfield now: U. New Mexico