

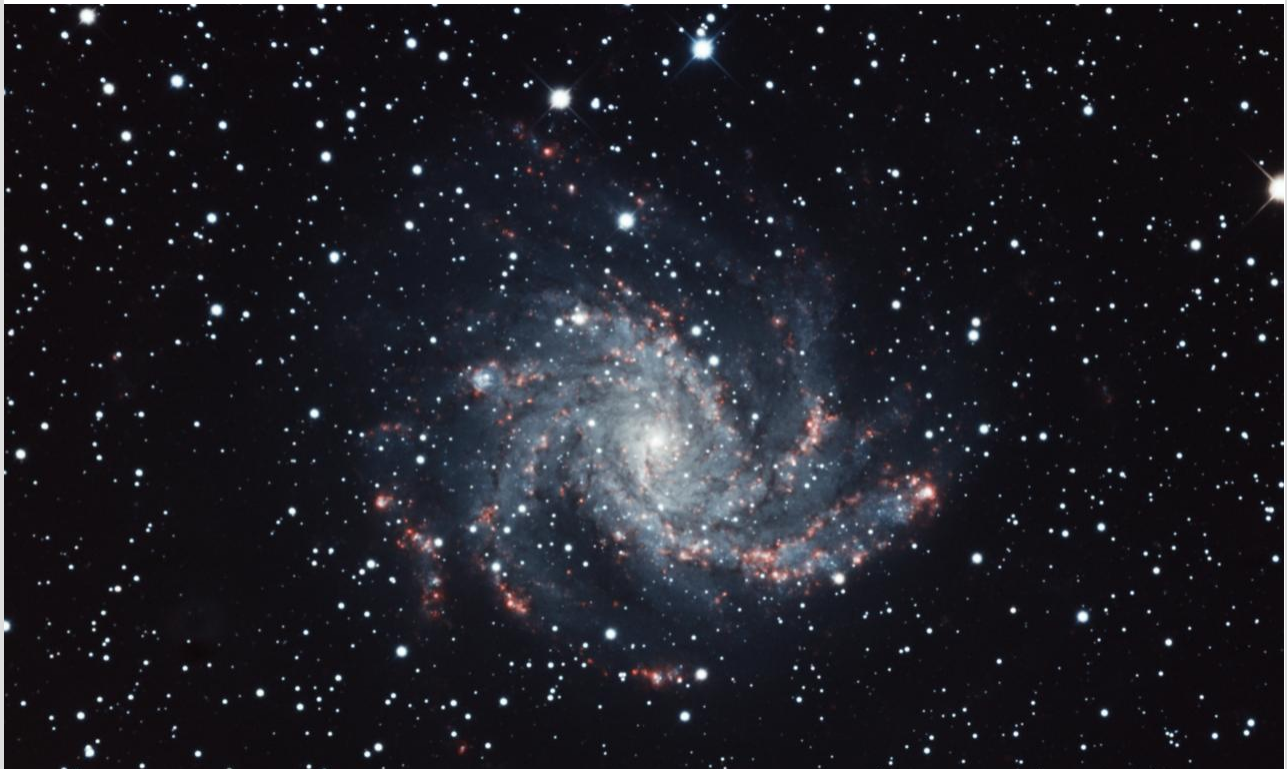


THE UNIVERSITY OF ARIZONA
COLLEGE OF SCIENCE

Astronomy & Steward Observatory

July Newsletter

To celebrate the 4th of July weekend,
we would like to highlight NGC 6946 – The Fireworks Galaxy



Located more than 25 million light-years from Earth, NGC 6946 is a remarkable spiral galaxy known as the **Fireworks Galaxy**. It is classified as a starburst galaxy, meaning it is experiencing an exceptionally high rate of star formation.

This stunning image combines more than **11 hours of observations** collected by University of Arizona astronomy undergraduate **Chase McMahon** using the **Phillips 24-inch telescope** on Mt. Lemmon.

NGC 6946 has become famous for another reason as well: ten supernovae have been discovered within this single galaxy, an unusually large number compared with most galaxies. These spectacular stellar explosions are what earned NGC 6946 its nickname, the Fireworks Galaxy, making it one of the most prolific nearby galaxies for observing the dramatic deaths of massive stars.

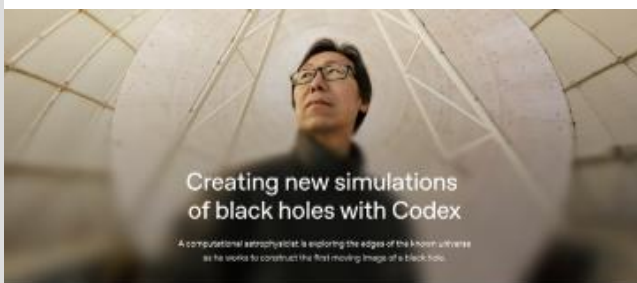


U of A space science ranks No. 1 among public universities in latest US News global ranking

The University of Arizona is one of the world's best public research institutions and the No. 1 public U.S. university in [space science](#), according to U.S. News & World Report.

The University of Arizona, home of the OSIRIS-APEX mission, is ranked No. 1 among public universities and No. 3 in the world in space science in the latest Best Global Universities ranking by U.S. News & World Report.

[Learn more](#)



How an astrophysicist uses Codex to help simulate black holes

Chi-kwan Chan and team gather data from the Arizona Radio Observatory 12m radio telescope at the Kitt Peak National Observatory.

[Learn more](#)

Codex helps Chi-kwan Chan to refine and test algorithms that simulate the movement of electrons and ions around a black hole.



Steward Observatory Assistant professor Kate Alexander, lead author.

[Learn more](#)

Black holes unleash delayed radio 'burps' years after tearing apart stars

Astronomers using the U.S. National Science Foundation Very Large Array report in The Astrophysical Journal that years after consuming unlucky stars, many supermassive black holes emit streams of material that interact with surrounding gas and glow in radio waves, providing new insight into how singularities grow and radiate energy back into their galaxies. University of Arizona assistant professor of astronomy Kate Alexander, lead author on the study, is interviewed.



U of A leads space domain awareness research with \$8.6M from Space Force

The University of Arizona has signed a three-year, \$8.6 million cooperative agreement with the U.S. Space Force to develop a new imaging system that will advance space domain awareness, or SDA – the ability to monitor and understand objects and activity in space.

The SURE research team will gather images of satellites using multiple radio antennae. Working together, the radio antennae are known as the Arizona Array.

[Learn more](#)



LBT Newsletter

The June 2026 LBTO newsletter highlights major observatory milestones, including a new partnership structure, the successful first light of the iLocator spectrograph, and recent scientific discoveries. It also features technology upgrades, future instrumentation plans, and recognizes individuals whose contributions have shaped the observatory's success.

Large Binocular Telescope located on Mt. Graham, Arizona

[Learn more](#)

Celebrating Outstanding Achievement



Astronomy graduate student Hayden Foote was awarded the College of Science Graduate Teaching Award in recognition of his role with the Astro SE program.

[Learn more](#)

TIMESTEP Internship Program prepares Astronomy students for high-tech careers through software engineering

A newly launched internship program in the [Department of Astronomy & Steward Observatory](#) at the University of Arizona is giving undergraduate students hands-on experience with astrophysics, software engineering, and artificial intelligence, all while contributing directly to groundbreaking international research on black holes.



Congratulations Daniel Huang!

2026 Arizona Astrobiology Center Seed Grants Recipients

Daniel Huang, a rising junior in Astronomy and Physics, participated in TIMESTEP's 2025–26 Research Apprenticeship Program, gaining paid research experience, professional skills, and faculty mentorship.

[Learn more](#)



Christopher Impey, co-department head and distinguished professor of astronomy.

Congratulations to Chris Impey 2026-2027 Fulbright Scholar

"Our Fulbright Scholars create a network of U of A expertise across the globe, building international partnerships and tackling grand challenges," said President Suresh Garimella. "I'm proud of our scholars for their work in expanding the university's land-grant mission on an international scale."

[Learn more](#)



The University of Arizona's **Richard F. Caris Mirror Lab** is proud to have produced the primary and tertiary mirrors for the **Vera C. Rubin Observatory**, a revolutionary facility that is transforming our view of the cosmos.

As the observatory begins its ambitious **10-year Legacy Survey of Space and Time (LSST)**, astronomers around the world are excited to watch the universe like never before. By repeatedly imaging the night sky, Rubin will create an unprecedented "movie of the changing universe," capturing exploding stars, asteroids, variable stars, and other dynamic cosmic events while helping answer fundamental questions about dark matter, dark energy, and the evolution of the universe.

We are thrilled to see the extraordinary craftsmanship and innovation of the Richard F. Caris Mirror Lab playing a central role in one of the most ambitious astronomical surveys ever undertaken.

[Learn more - ScienceInsider article](#)

Friends of Steward Observatory

Your generosity helps us explore the cosmos

while inspiring those who will lead the next generation of discovery!

Steward Observatory: Celebrating Independence Through Discovery

As we celebrate Independence Day, we reflect on the spirit of curiosity, innovation, and exploration that has shaped our nation's history. The pursuit of knowledge—the courage to ask bold questions and seek new horizons—is a tradition that continues every day at Steward Observatory.

Just as generations before us looked beyond the known world, our students, researchers, and faculty are exploring the universe beyond our own. From discovering distant galaxies and studying planets around other stars to developing groundbreaking astronomical technologies, each new discovery expands our understanding of the cosmos and our place within it.

Exploring New Frontiers

Astronomy reminds us that exploration has no boundaries. Every observation made through a telescope and every breakthrough in the laboratory represents another step toward answering humanity's oldest questions.

This summer, our community continues to push the frontiers of science while inspiring future generations to dream big, think boldly, and pursue discovery wherever it may lead.

Investing in Tomorrow's Discoverers

The future of exploration depends on today's students. Thanks to the generosity of our supporters, aspiring astronomers gain hands-on research experiences, mentorship, and educational opportunities that prepare them to become tomorrow's scientific leaders.

Your investment helps transform curiosity into innovation and inspires the next generation of explorers.

Looking Toward the Future

As families gather to celebrate the Fourth of July beneath summer skies, we are reminded that the same stars that inspired generations past continue to inspire us today.

Thank you for being part of the Steward Observatory community. Your support advances scientific discovery, empowers future astronomers, and helps ensure that the spirit of exploration continues to shine for generations to come.

Wishing you a safe, joyful, and inspiring Independence Day filled with wonder beneath the stars.

[Learn more](#)

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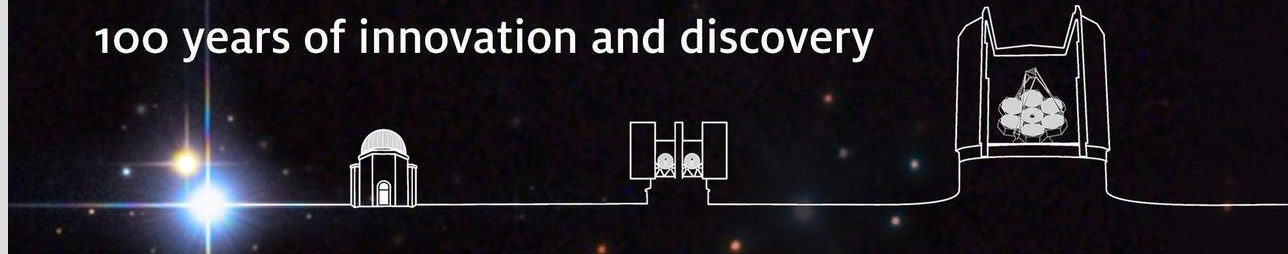
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For more information or questions

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Steward Observatory

100 years of innovation and discovery



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