



# CORNELL ASTRONOMICAL SOCIETY NEWSLETTER

ISSUE 20 • SEPTEMBER 2024



## LETTER FROM THE EDITOR

Greetings, wonderful readers and fellow astronomical enthusiasts, and I hope you're ready to start another semester here at Cornell! We started the semester with Clubfest, advertising our club and our love of astronomy to the Cornell community. We also capitalized on the shockingly clear weather with a planet-observing all-nighter, where we (attempted) to see all eight planets in one night. If you've missed CAS, we've got some exciting events planned for the next few months.

Get ready for another edition of the CAS lecture series! Every year, we host a public lecture series featuring various members of the Cornell astronomical community and the research they do here at Cornell. We've had an eclectic mix of topics, ranging from detecting life on exoplanets, the mechanics of eclipses, and even the optics of our beloved telescope Irv.

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Our first lecture this year is scheduled for September 20th, where Cornell Astronomy PhD student Francisco Blanco will discuss gravitational waves created by binary neutron star and black hole mergers. He'll describe the math behind how these mergers allow us to peer into the universe and the detectors that make it all possible. Although times are subject to change, we plan to host at least six lectures in Fall '24, including lectures celebrating the 102nd anniversary of our telescope Irv and the esteemed Cornell professor, science communicator, and astronomer Carl Sagan on what would be his 90th birthday. We'll include the tentative schedule for our lecture series on the following pages; stay posted for more updates!

There is a partial lunar eclipse happening on Tuesday, September 17th! If the weather cooperates, we'll host a special open house to observe the eclipse. Keep an eye out for more information in the coming days! Comet Tsuchinshan-ATLAS C/2023 A3 will also make its closest approach to the sun on September 27th and could be visible to the naked eye just before dawn in the following week or two. Additionally, the binary star system T Coronae Borealis is predicted to undergo a once-in-a-lifetime nova explosion in the coming months, potentially becoming visible to the naked eye as well. We'll be releasing more information about these events as we get closer.

Our regular newsletters will resume next month, and we hope to see you at the observatory!

Shane Kuo, Editor-in-Chief

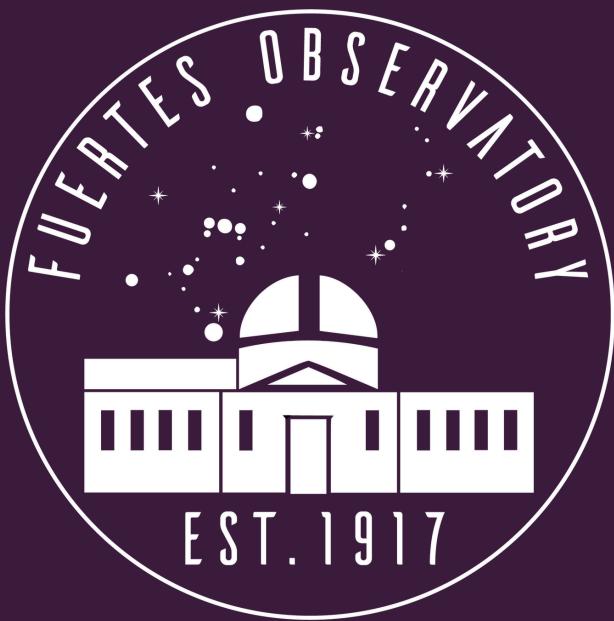
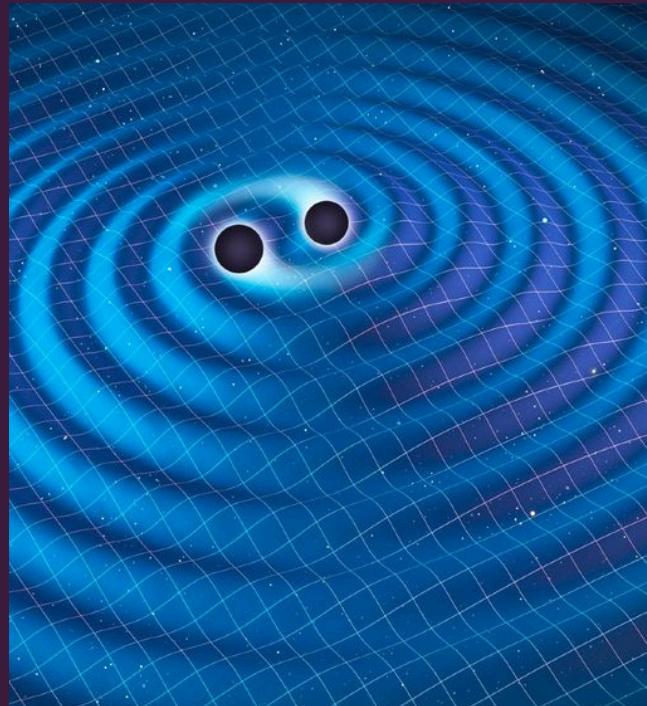


# TENTATIVE FALL '24 LECTURE SERIES SCHEDULE

Friday, September 20th, 7:15-8:00 PM  
Toni Morrison Multipurpose Room 102  
Francisco Blanco

## When Black Holes Collide: Revealing the Universe Through Gravitational Waves

PhD student Francisco Blanco will explore binary neutron star and black hole systems, and the gravitational waves they create. He'll delve into the mathematical and physical background behind how these mergers allow us to peer into the universe and how LIGO and the upcoming LISA mission can detect them.



Friday, September 27th, 7:00-8:00 PM  
Toni Morrison Multipurpose Room 102  
Professor Dong Lai

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Friday, October 18th, 7:00-8:00 PM  
Toni Morrison Multipurpose Room 102  
TBD

Irving Porter Church Memorial  
Telescope 102nd Anniversary Lecture

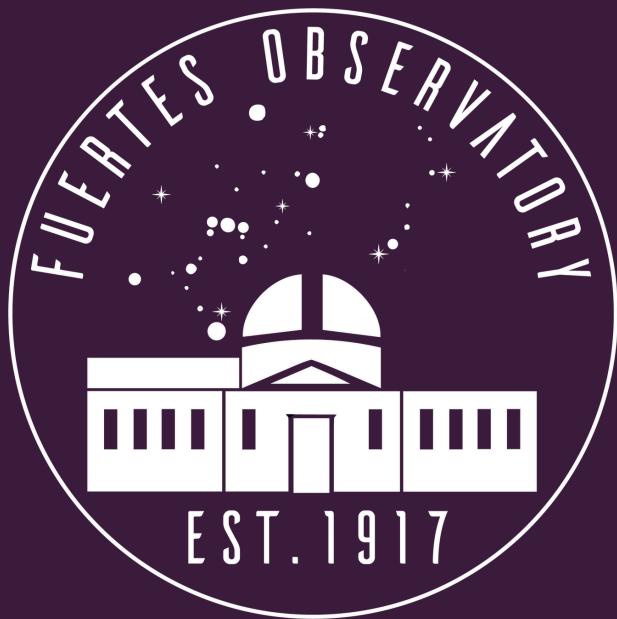
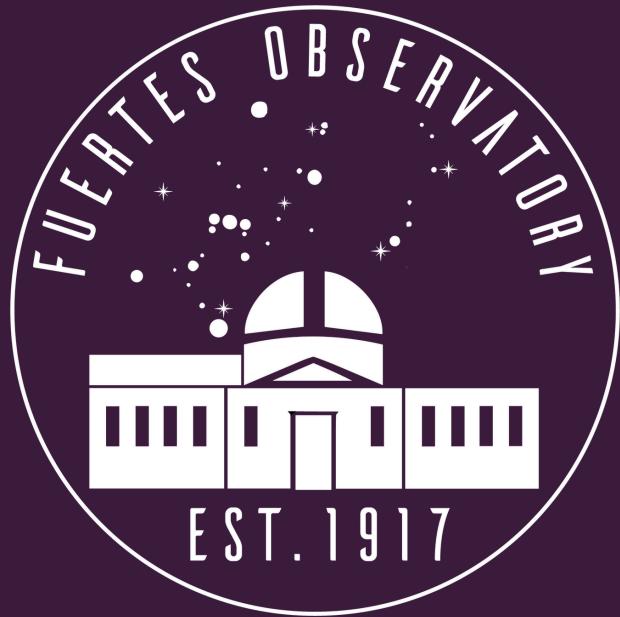


Friday, November 8, 7:00-8:00 PM  
Toni Morrison Multipurpose Room 102  
Dr. Jake Turner

Carl Sagan's 90th Birthday

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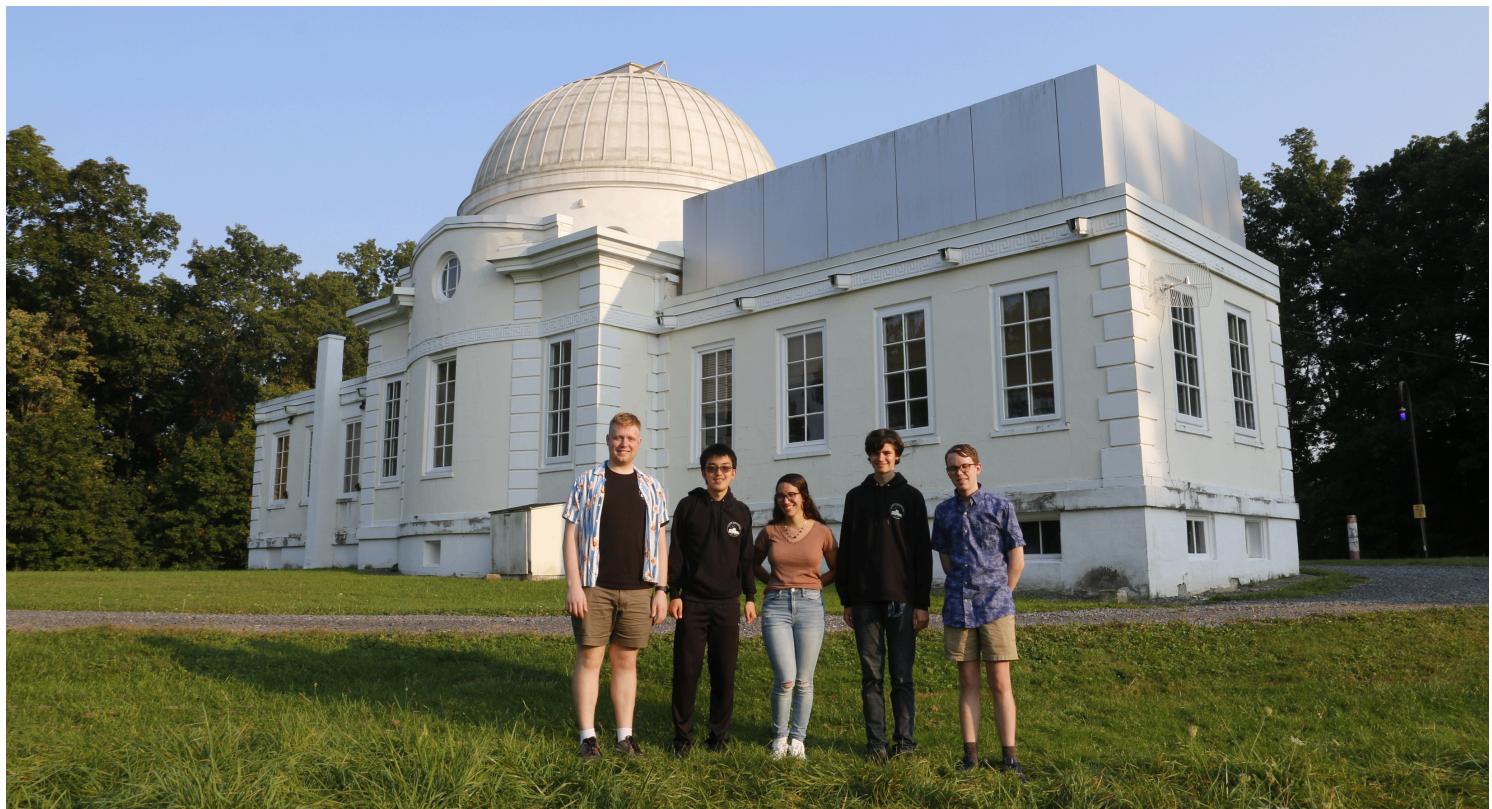
Friday, November 15th, 7:00-8:00 PM  
Toni Morrison Multipurpose Room 102  
Professor Gordon Stacey



Friday, November 22, 7:00-8:00 PM  
Toni Morrison Multipurpose Room 102  
CAS Members

Student Research Night

# MEET THE OFFICERS!



## ERIK PAYTON - PRESIDENT

Hello fellow astronomers! I'm Erik Payton, your Cornell Astronomical Society President for 2024-2025. I am a senior majoring in Mechanical Engineering with an Aerospace Minor. I am from West Charlton, New York, and have had a love for astronomy since visiting the planetarium near my house when I was a very young boy. I came to Fuertes starting in my freshman year, and after officially joining the club my sophomore year, I never stopped!

As one of the resident mechanical engineers, I have a deep love for Irv's governor, and have repaired a telescope or two along with a fellow CAS MechE. You will often find me giving dome tours, talking about the governor, or doing Astrophotography. When I am not up at the observatory, I can usually be found either hiking, riding my horse, or repairing antique Swedish Mora Clocks. I am also part of a spacecraft research lab on campus and am actively involved in undergraduate spacecraft research!



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## ANDREW LEWIS - VICE PRESIDENT



Greetings, folks! I'm Andrew Lewis, serving as the Vice President of CAS this year. I am a sophomore majoring in computer science and electrical and computer engineering, and I intend to minor in astronomy. I initially became fascinated with the observatory when I visited out of general interest last year. I instantly became fascinated with the fact that instruments over 100 years old were still being used by undergraduates for the purpose of public outreach, and have been coming weekly ever since.

I can quite frequently be found at Fuertes looking at the Sun with either Irv or the Coronado H-alpha telescope. Ithaca's typical cloudy nights have perhaps accustomed me to look at what I can during the day. I'm also interested in learning how antennas work and how they can be used for astronomy, and so you might catch me experimenting with the radio antennas scattered across campus. I look forward to a fun year at Fuertes (and HBO and Cherry Springs)!

## JILLIAN EPSTEIN - OUTREACH COORDINATOR

Hi everyone! I'm Jillian Epstein, the outreach coordinator this year! I am a senior majoring in engineering physics and minoring in astronomy. My interest in astronomy began with the science magazines I read when I was twelve, and I've loved studying the stars ever since. I first came to Fuertes Observatory my sophomore fall for a telescope training, and have been coming since! I love giving constellation tours and sharing the fun astrophysics behind the objects we look at here.

When I am not looking at the stars, I love rock climbing, paddling, and crocheting! I teach rock climbing classes for Cornell Outdoor Education, have led the analysis subteam on Cornell Concrete Canoe, and perform sword fights with Ring of Steel: Ithaca. If you see someone crocheting a blanket or designing stickers between dome tours on a cloudy night, it's probably me! I hope we have a great year of science outreach and awesome astronomy!



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## CHRISTOPHER BROWN - TREASURER



Good evening, stargazers! I'm Christopher Brown, the 2024-25 treasurer! I am a sophomore majoring in physics (astrophysics concentration) with a minor in mathematics. Originally from Louisville, Kentucky, I first became interested in astronomy when I received a Celestron AstroMaster 130 for my 10th birthday - to this date, the only telescope I've ever owned. I came to Fuertes during my very first week of freshman year, and simply could not stop coming back!

When I'm not at Fuertes, you might find me walking around Beebe Lake or the Botanic Gardens, trying and failing to write crosswords for the newsletter, or playing badminton or frisbee. When I am at Fuertes, you might find me struggling over physics problem sets, plotting mischief with my fellow sophomores, and you'll never miss me on a trip to Louie's! Outside of CAS, I am involved in Science Olympiad at Cornell and SPS (the Society of Physics Students). I look forward to being your treasurer this year!

## SHANE KUO - NEWSLETTER EDITOR-IN-CHIEF

Hey, astronomical enthusiasts! I'm Shane Kuo, the Newsletter Editor-in-Chief for the 2024-2025 academic year. I am a sophomore majoring in Electrical and Computer Engineering and intend to minor in Mathematics. I've been enthusiastic about astronomy ever since Neil deGrasse Tyson showed me the stark beauty of the cosmos and how we humans have come to understand it in *Cosmos: A Spacetime Odyssey*. My hometown is Rochester, New York, and I was first introduced to CAS and the Fuertes Observatory by a fellow club member and Rochesterian the summer before my freshman year. After attending my first open house, I was hooked and kept returning for more!

While at the observatory, I tend to be doing astrophotography, giving sky tours to the public, or trying to finish up problem sets. Outside of Fuertes, I also practice Taekwondo, play the piano, and participate in undergraduate research here at Cornell studying Greenland's subsurface hydrology using ice-penetrating radar. I hope you'll have as much fun reading our newsletters as we've had writing them!



# CREDITS

## CAS Officers

Erik Payton, President  
Andrew Lewis, Vice President  
Christopher Brown, Treasurer  
Jillian Epstein, Outreach Coordinator  
Shane Kuo, Editor-in-Chief  
Phil Nicholson, Faculty Advisor

Cornell Astronomical Society (CAS) is a student-run non-profit organization founded in 1972.

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## Special Thanks

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