2026 MIDSOUTH STAR GAZE ASTRONOMY CONFERENCE SCHEDULE & LECTURE ABSTRACTS

Space Art and Astrophotography exhibit on display at the Welcome Center's Main Street Art Gallery in downtown French Camp, Mississippi, 10am-3pm Monday-Friday. Features the space artwork of Edwin Faughn and amazing astrophotographers from around the country!
(More details below!)

Wednesday: April 15

Setting Up, Solar Observing, Fellowship, Sightseeing
Sunset-Until: Observing
5:00 pm: Supper on your own *(Council House Restaurant)*

Thursday: April 16

Solar Observing, Fellowship, Sightseeing
11:00am: Lunch on your own *(Council House Restaurant)*
5:00 pm: Supper on your own *(Council House Restaurant)*
Sunset-Until: Observing

Friday: April 17

Solar Observing, Fellowship, Sightseeing
11:00am: Lunch on your own *(Council House Restaurant)*
1:00pm: Lecture, Jon Talbot, *"Helping the Pro's Discover Nebula Around Cataclysmic Variable Stars"*
3:00 pm: Lecture: Dr. William Keel, *"Gravitational Lensing - from Einstein's Lens to Zwicky's Telescope"*
5:00 pm Supper on your own *(Council House Restaurant)*
7:30 pm: Lecture: Dave Teske, *"Sky Lore in the Planetarium"*
Sunset-Until: Observing

Saturday: April 18

Solar Observing, Fellowship, Sightseeing
11:00am: Lunch on your own *(Council House Restaurant)*
2:00 pm: Lecture: Dr. William Keel, *"Hubble to Webb to Roman and the Rest of the Team"*
5:00 pm: Supper on your own *(Council House Restaurant)*
Sunset-Until: Observing

LECTURE ABSTRACTS

Dr. William C. Keel

Lectures: "Gravitational Lensing - from Einstein's Lens to Zwicky's Telescope"

Einstein worked out how gravity deflects light as a consequence of general relativity, but concluded that it would remain an unobserved mathematical curiosity, because we were so unlikely to see stars align precisely enough. A year later, Fritz Zwicky pointed out that we should really be looking for the effect between galaxies, much larger and more massive. 40 years later, we started to find gravitational lenses involving galaxies, and today we rely on the effect to find the most distant and faintest galaxies and look for Earth-mass planets around stars by the million. The deepest exposures by new telescopes such as JWST are targeted to use the gravity of galaxy clusters to extend our range, and this has led to measurements of the most distant known individual galaxies. The Nancy Grace Roman space telescope has the additional goal of identifying Earth-mass planets as they briefly amplify light from background stars.

"Hubble to Webb to Roman and the Rest of the Team"

Streams of striking images have made the Hubble and James Webb space telescopes truly iconic and the data deluge from the upcoming Roman telescope will far surpass their data volumes. Part of their value for astronomy comes from their complementary fields of view, wavelength coverage, angular resolution, and time sampling. Beyond this striking triple play, the rest of the observational team fills in yet more crucial information - from gamma rays to long-wavelength radio, sampling ever more rapid changes in the sky, and scanning more and more of it deeply to seek rare and variable objects. I will compare the capabilities and results of these observatories to show how our limited our view of the Universe began, and how it has become progressively more complete. What is still waiting for us to find out there in the dark?

Bio:

Dr. Keel is a Professor Emeritus and galaxy research astronomer from the University of Alabama. He has conducted research on some of the most powerful telescopes in the world such as Lick Observatory, Mount Lemmon, Kitt Peak, Lowell Observatory, La Palma, Bol'shoi Teleskop Azimutal'nyi, Cerro Tololo, European Southern Observatory, NASA, Infrared Telescope Facility Mauna Kea, MMT, Mt. Hopkins, Arizona, MDM Observatory, Palomar Mountain, SARA Observatory, Kitt Peak and Cerro Tololo ARC 3.5m telescope, Apache Point Observatory, New Mexico Gemini Observatory Mauna Kea and Cerro Pachon, NRAO: Very Large Array telescope, James Clerk Maxwell Telescope Mauna Kea, Low Earth orbit, Hubble Space,Telescope, ROSAT, IRAS, STS-95 Starlite, FUSE, GALEX, Swift, Suzaku, High Earth orbit, ISO, Chandra, XMM-Newton, Geosynchronous orbit, IUE Solar escape orbit, Voyager 2. He has also published two books - The Road to Galaxy Formation and The Sky at Einstein's Feet.

Jon Talbot

Lecture:

"Helping the Pro's Discover Nebula Around Cataclysmic Variable Stars"

Jon's presentation deals with working alongside other amateurs with professional astronomers to discover interesting nebula and bow shocks which occur around cataclysmic variable stars. They have had 7 professional papers written to date with their imagery of this phenomenon.

Bio:

Jon took up astrophotography in 2001 and has pursued photographing the night sky for the past 25 years using astronomical CCD/CMOS and DSLR cameras. He has done equipment reviews for Astronomy magazine and written articles for Astronomy and Sky and Telescope. Jon is a contributing editor for Amateur Astronomy Magazine. He has had images published in Sky and Telescope, Astronomy, Amateur Astronomy Magazine and on the NASA APOD science site "Sky". He has presented at NEAIC, on the AstroImaging Channel, and many star parties over the past 15yrs. Jon was an early adopter of PixInsight when it was released in 2004 and since retirement, he has been active in teaching astrophotography courses using PixInsight at star parties across the SW and SE US.

Jon was featured as the "Star Person" in the fall 2021 issue of Amateur Astronomy Magazine. He is the retired Chief, Flight Meteorologist for the Air Force Hurricane Hunter and has over 5,600 flight hours and 153 hurricane penetrations. He lives in Ocean Springs, Mississippi where he has a backyard observatory.

You can see Jon's amazing work at: *StarScapeImaging* and ***AstroBin***

David Teske

Presentation: "Sky Lore in the Planetarium"

Bio:

David Teske is a long-time amateur astronomer who specializes in lunar and solar astronomy, as well as public outreach. He has worked as the assistant planetarium at the Alworth Planetarium in Duluth, Minnesota, the assistant director at the Davis Planetarium in Jackson, Mississippi, and has presented numerous astronomy programs at the Rainwater Observatory, nature centers, and schools. He recently retired as a science teacher who has been the recipient of numerous awards for teaching including STAR teacher twice, teacher of the year from Parents for Public Schools, and recognition from NASA and the Air Force Association for teaching. NASA awarded Teske for Mission Home, for incorporating science applications to Earthly applications. The Air Force Association awarded Teske the Christa McAuliffe Teacher of the Year for his teaching of air and space sciences in middle school. Currently, Teske is the coordinator of the Association of Lunar and Planetary Observers, (ALPO)

"ASTROPHOTOGRAPHY AND SPACE ARTWORK EXHIBITION"

Monday-Friday 10am-3pm

This exhibition is currently on exhibit at the Welcome Center in the town of French Camp and contains astrophotography and astronomical or space artwork. The two are related but different in purpose and technique. Astrophotography is the art of photographing anything not on this earth. Subjects include the planets, Sun, Moon, asteroids, comets, the Milky Way galaxy and other galaxies, planetary nebulae, globular star clusters and supernova remnants. Astrophotography also requires tedious and often lengthy time exposures to capture faint objects in space. These exposure times range from minutes to hours, so the astrophotographer must rely on complex polar aligned telescope mounts, fast precision telescope optics, and other sensitive photographic equipment and computer software.

The astrophotographers whose work is reflected in these two panels come here from around the United States to capture these spectacular images under our beautiful dark skies. Their names are Fred Howell, Bill Kennedy, Jon Talbot www.starscapeimaging.com, David Teske, Stephen Winkler, Jim Turpin, Dr. Philip Mintz, Freddy Diaz, Nick Barrett, John Meile, Matt McAlilly, Carlos Flores, Dr. Jarrod Marsh, and Jim Swiger. Their highly skilled, amazing, and complex work spans several years and the images on these two panels were taken here at Rainwater Observatory in French Camp, Mississippi. More of their work can be seen at: www.rainwaterobservatory.com

Space art is a combination of science and art but is not science fiction or fantasy and depicts real astronomical phenomena throughout the universe. This unique art is informed by science and requires extensive research to maintain accuracy. It often depicts celestial events that are extremely remote, exposed to unimaginably intense radiation, gravity, or temperature extremes.

The space artwork in this exhibit was created by Edwin Faughn using a combination of oils, acrylics, and digital media. Edwin is a space science artist and lecturer and currently serves as the director of Rainwater Observatory here in French Camp, Mississippi.