

2024 MIDSOUTH STAR GAZE & ASTRONOMY CONFERENCE SCHEDULE

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

Wednesday: May 8

Setting Up, Solar Observing, Fellowship, Sightseeing
Sunset-Until: Observing

Thursday: May 9

Solar Observing, Fellowship, Sightseeing
12:00pm: Lunch on your own (*Council House Restaurant*)
2:00pm: Dave Teske, "A Lunar Swirl Near Apollo 16"
5:00 pm: Supper on your own (*Council House Restaurant*)
Sunset-Until: Observing

Friday: May 10

Solar Observing, Fellowship, Sightseeing
12:00pm: Lunch on your own (*Council House Restaurant*)
1:00pm: Lecture, Jon Talbot, "*Adventures In Imaging The Unknown*"
3:00 pm: Lecture: Dr. William Keel, "Cosmic Webb – Origin Stories, Collectors' Edition"
5:00 pm Supper on your own (*Council House Restaurant*)
7:30 pm: Lecture: "Sky Lore in the Planetarium" with Dave Teske
Sunset-Until: Observing

Saturday: May 11

Solar Observing, Fellowship, Sightseeing
12:00pm: Lunch on your own (*Council House Restaurant*)
3:00 pm: Lecture: Dr. William Keel, "*Stardust Revisited*"
5:00 pm: Supper on your own (*Council House Restaurant*)
Sunset-Until: Observing

LECTURE ABSTRACTS

Dr. William C. Keel

Lectures:

Cosmic Webb – Origin Stories, Collectors' Edition

Two years into its mission, the James Webb Space Telescope is fulfilling its goal and promise of unveiling the history of galaxies. So far results are coming in faster than we can piece them together, which is a Very Good Stage. Some galaxies took their "adult" shapes faster than expected, while others started very tiny but intensely bright. We are starting to see such early stages in star formation of distant galaxies that the chemical makeup of different pieces has not yet mingled across the galaxy, retaining hints of still earlier generations of stars. Some galaxies have surrounded themselves with so much dust that they would be invisible in blue light even when seen close up. And understanding the links between supermassive black holes and surrounding galaxies has become more complex with the discovery of overmassive black holes, and the early appearance of such massive black holes that they may have started from seeds more exotic than massive stars. (2 years! Imagine what we could learn from 20!)

Stardust Revisited

When I was in school, interstellar dust was mostly the stuff that blocks our view. Truth to tell, it has an indispensable role in the cosmic cycles of matter and energy. It catalyzes starbirth in dense cold clouds, promotes the formation of molecules in those same clouds, turns half the Universe's starlight into far-infrared radiation, seeds the formation of planetary systems, and plays key roles in the ecology of stars and gas in and around galaxies. New results, from asteroid sampling through polarization of protoplanetary disks to ALMA submillimeter measurements and JWST data, are helping to knit all these facets into an overall picture of cosmic dust.

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:

“Adventures In Imaging The Unknown”

Bio:

Jon took up astrophotography in 2001 and has pursued photographing the night sky for the past 23 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: <https://www.starscapeimaging.com>

David Teske

Lectures:

“Lunar Swirls Near Apollo 16”

In this program, the most mysterious of lunar features, lunar swirls, are explored. Lunar swirls are best seen with Reiner Gamma in Oceanus Procellarum and are easily visible in any telescope near Full Moon. These swirls have no topographic relief so though bright, they are very flat. Apollo missions found that these lunar swirls are areas of high magnetic fields on the Moon, which generally has no magnetic field. In this program, Teske explores a “new” lunar swirl that lies very near the Apollo 16 landing site and shows how it is easily visible with a small telescope. Also discussed will be the ALPO in general, the Lunar Topographic Studies Section, the newsletter The Lunar Observer and a solicitation for observations.

[The Association of Lunar & Planetary Observers ALPO Home \(alpo-astronomy.org\)](http://alpo-astronomy.org)

“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 Lunar Topographic Studies Program of the Association of Lunar and Planetary Observers.

“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 and more of it can be seen at: <http://www.edwinfaughn.com> Edwin is a space science artist and lecturer and currently serves as the director of Rainwater Observatory here in French Camp, Mississippi.