THE EVENT HORIZON





ST. LOUIS ASTRONOMICAL SOCIETY

Devoted to the Interest and Advancement of the Science of Astronomy

VOLUME 31, Issue 10 October, 2021

The Travel Moon: Returning to the Moon, Our Destiny of Tomorrow by

Dr. Jeffrey Gillis-Davis Washington University

Dr. Jeffrey Gillis-Davis of Washington University will be featured at the October meeting of the Saint Louis Astronomical Society. The meeting will be held via Zoom online conference only. The meeting and lecture will begin at 7:30 p.m. on Friday, October 15. Zoom access information is posted below

International Observe the Moon night (Oct 15th) and The Full Travel Moon (the Hunter's Moon, Oct 20th) both happen in October. Gazing up at the Moon unifies humankind and triggers our species' endless curiosity and innate desire to explore. This talk will explain how upcoming robotic missions through Commercial Lunar Payload Services (CLPS) will investigate the Moon. The science from these missions will reveal knowledge not only about the Moon but also our place in space. These missions will pave

the way for the Artemis future crewed landings. The Artemis program will employ international cooperation to achieve a sustainable and robust presence on and around the Moon.

Dr. Gillis-Davis is a Research Professor of Physics at Washington University. Prior to joining the Physics research faculty in 2018, for fifteen years, he worked at the University of Hawaii. His research there involved data from NASA's MESSENGER mission, which orbited Mercury, and radar data from the Lunar Reconnaissance Orbiter Mission Dr. Gillis-Davis conducts experiments to understand how the surfaces of airless bodies change with exposure to the space environment. Such improved understanding makes it possible to interpret remote sensing data better.

Upcoming Meetings 2021

November - Voyager speakers December - Scott Roberts, Explore Scientific 2022

January - Scott Hummell, McDonald Observatory

Inside This Issue

President's Corner Volunteer Hours Help us at Star Parties!

Star Party Gallery 4

Gallery 5

Board Minutes 6

Financials 7

Events 8

Contacts

Joining a Zoom Conference Meeting: Everyone can join! No Computer Required!

Joining us for a Zoom Conference is easy! All you need is any of the following: Computer, desktop or laptop, smartphone, **OR** any regular phone! The meeting will be open from 6:30-11pm. The extra time is to allow socializing before or after the meeting

Below is the invitation to join:

To join Zoom Meeting for SLAS Regular Meeting with computer or smartphone: Just click the link below:

https://zoom.us/i/8604505790

Meeting ID: 860 450 5790

Dial by ANY phone using your location (any phone will work)

+1 312 626 6799 US (Chicago) Meeting ID: 860 450 5790

International Observe the Moon Night is October 16! Join us for one of several events taking place. We will be at the Jeffco Observatory, The Arch and at East Central College. OR, do your own thing!!

President's Corner by Jim Small

The highlights from the last SLAS meeting forward were many! Perhaps one of the best was the Missouri International Dark Sky Association conference in early October. Many great speakers on a variety of topics about light pollution were there. I checked into the Oasis motel on Sunday and went to the first part of the conference held at the Student Union on the campus of Missouri State University. A number of speakers presented then they had the keynote, Bettymaya Foott from Moab, Utah. She is a well known dark sky photographer and presented us a myriad of amazing Milky Way images she has taken. I will do my best to schedule her for a talk to SLAS sometime in the future! Monday had another full day of meetings including the introduction of Stacy Park as a designated Urban Dark Sky Place! (We have a star party scheduled there November 6) One of the speakers was Brett Seymore who spoke on the effect of light pollution on biology, both wildlife and humans. After the meeting wrapped up Monday night, Don Ficken, Brett and I went looking for decent dark skies NW of Springfield. We found it at Bois d' Arc Conservation Area. A decent size gravel parking lot. We set up cameras and I set up my new (to me) refractor for a looksee at the

planets. It was the first time Brett had looked through the telescope. Of course we had to do Saturn first!! He was quite impressed! I will also do what I can to have him talk to the group, too.

We held the first meeting for the MSRAL 2022 committee last week and got things started for the conference. We would appreciate having more members who are interested in helping with the conference either by helping to plan it or by volunteering during the conference itself. In either case, please plan on attending the next MSRAL 2022 planning meeting scheduled for October 20 at 6:00pm at Young's restaurant in Valley Park at 141 and Vance. RSVP in NSN if you are coming!

International Observe the Moon night is Saturday, October 16. There are several events that night, but SLAS is hosting a private event for the Girl Scouts at the Jefferson College Observatory. There will be more than 100 scouts and adults, so we could use all the help we can get. Set up a scope on the patio and be prepared to talk about the Moon to a lot of curious people! There will also be a public event at the Arch and at East Central College. Can't make it to one of those? Set up a scope yourself and do a little sidewalk astronomy and help people to see! Don't forget to take a photo or two and forward it to me!

See you in the night skies!

Jim Small

SLAS volunteer hours through 10-6-2021 totals 375 hours

We have 14 members with 4 or more events logged. It takes 5 events to be eligible for the Night Sky Network Outreach Pin! There are plenty of upcoming events, so make sure you get yours!

Bill Breeden	37	events	53.5	hours
Mark Jones	15	events	32	hours
Donald Ficken	14	events	33	hours
Cook Feldman	10	events	35	hours
Rita Breeden	8	events	24.5	hours
Randy Harrison	6	events	24	hours
William Neubert	6	events		hours
Richard Fefferman	6	events	11.5	hours
Bradley Waller	5	events	17	hours
John Beaury	4	events		hours
James Small	4	events	12	hours
Chris Hanson	4	events	11.5	hours
Jeff Carpentier	4	events	9.5	hours
John Strebeck	4	events	7	hours
Phyllis Nolan	3 3 3	events	10	hours
Carl McCullough	3	events	9	hours
Richard Jennings	3	events	7.5	hours
Benjamin Winningham	2 2	events	7	hours
Ty Frauenfelder	2	events	7	hours
William Winningham	2 2 1	events	7	hours
Maryanne Angliongto	2	events	4.5	hours
Kenneth Levy		events	3	hours
Mark Bremer	1	events	3	hours
Frank Mack	1	events	2.5	hours
Brooke Myers	1	events	2	hours
James Tyrrell	1	events	2	hours
Jeff Kisslinger	1	events	2	hou

Have You Attended a Star Party? Your Help is Needed! by Jim Small

Plenty of you have done it. All you have to do is look at the list to the left! You showed up at a star party, set up your scope, and entertained plenty of soft, warm eyes looking at the heavens. Like JD, you've probably shot your trap off at the eyepiece, relaying plenty of useful information about the object people are looking at, or about astronomy in general. It's what we do here at SLAS, and we are GOOD at it! AND, most likely, being a person interested in decent astronomical images, you probably have a phone with a decent camera on it, too.

So, what's your point, you ask. Well, when you get a minute or two break in the action, grab that phone and take a picture or two of people talking to the public, the public looking through scopes, astronomers talking to each other and so on, and send them to me!!!! If you look at the list to the left, I am not necessarily making it to all the events! And the people who ARE making it to the events deserve some recognition!

Here's what I want you to do: 1. Take a picture of astronomers setting up (including yourself!) Shoot that selfie!! Learn how to use time delay! Buy a remote for your cell phone camera from Wal-Mart for \$5. Use it! Take pictures of the crowd at the telescopes! Take a picture of the sky! (the new iPhones are GREAT at that). Then TEXT them to me at 314-307-0692 along with a

description and names of SLAS members.

Lean't wait to see the results! SLAS volunteers deserve

I can't wait to see the results! SLAS volunteers deserve the recognition! jrs

VOLUME 31, ISSUE 10 OCTOBER, 2021



Sukkot Under the Stars at United Hebrew:

Top Left: Mark Jones with a demonstration

Top Center: A family views through Tom Hale's Dob

Top Right: Tom Hale watches people view through a sec-

ond scope!

Center Left: Mark Jones and Tom Hale showing how to

use a Library Telescope

Center Right: Lee Rosenberg, the organizer for the Sukkot event talks it over with some of the congregation

Right: Jim Small's new (OLD) refractor: Celestron by Vixen 80mm f8 Fluorite Apo with 2x barlow and 8-24 zoom. Crispy views of Jupiter and Saturn!





VOLUME 31, ISSUE 10 OCTOBER, 2021



VOLUME 31, ISSUE 10 OCTOBER, 2021

St. Louis Astronomical Society Devoted to the Interest and Advancement of the Science of Astronomy Executive Board Meeting Minutes 8/5/2021

1. Opening Activities

- a. Attendance: Bill Winningham, John Newcomer, Larry Campbell, Jim Small, Brad Waller, Brent Buch, Bill Poletti, Jeff Carpentier.
- b. Open Meeting: opened at 7:05 pm
- c. Approval of last month's meeting minutes Bill Winningham moved, Larry Campbell second, approved 5-1
- d. Next Board meeting date: Dates for 2021: Oct 7, Nov 4, Dec 2. Meetings will be via Zoom until further notice:

2. Upcoming General Membership meeting topics:

a. Speaker:

- b. Special Awards needed:
- c. Speaker Press Release:
- d. Special Business needed:
- e. A101: Observatory update

3. SLAS Financial Report

- a. Balance Sheet
- b. Profit/Loss report
- c. Annual Budget meetings -
- d. Corporate filings: Missouri corporate filing and the ALCOR dues have been paid.

4. Speaker Committee

- a. Budget \$400 -schedule budget meetings First meeting September 19, Youngs, 4pm
- b. Upcoming speakers:

SLAS Monthly Meetings

Presentations 2021

Month Name Topic
Sponsor
17-Sep-2021 Larry Bartoszek, PE The Sloan Digital Sky

Survey Telescope

15-Oct-2021 TBA19-Nov-2021 Jon

Lomberg, V ger speakers

17-Dec-2021 Scott Roberts Explore Scientific

c. Open dates for 2022 all but February and November

- d. Topics of interest James Webb Space Telescope, Event Horizon Katie Bouman
- e. Stipends
- f. Travel

5. Membership Initiatives

- a. Budget \$450
- b. Welcome Aboard Meetings
- c. Raffles
- d. Attendance prizes this month

6. Membership Recognition

- a. Total Budget \$420
- b. NSN Outreach Awards:
- c. Membership Report: The SLAS membership report for August 2021 for SLAS shows 226 members, a reduction of one member from last month but 47 more members than last year at this same time.
- d. Member anniversary awards
- e. New Award program \$600 budget
- 1. Special Award Committee report: Chairman Larry Campbell, Jim Small, Mark Jones, Cook Feldman, Sharon Bertram, Fred Schovanez, Bill Neubert
- 2. New Award Policy and nomination process -
- 3. Submittal deadlines
- 4. Nomination reviews:
- 5. Award selection:
- 6. Plaques purchased:
- 7. Awards presented:
- 7. Outreach -
- a. Budget \$700

- b. Member Training Program Status: on hold for the time being.
- c. Purchase of T-shirts for volunteers completed training
- d. Purchase of lawn signs:
- e. Upcoming outreach events: Bridgeton 9-11 Jeffco Observatory 9-12, Arch, 9-18, Crestwood 9-18, Babler 9-25,
- f. Awards/recognitions
- g. NSN Outreach hours YTD

8. Old Business:

- a. Training Program start a committee Still holding on dates for MSRAL
- 9. New Business:

10. Other Committee Reports: If needed

A. SLSC Business:

- a. First Friday actions: Bradley will check status.
- b. Other immediate business

B. SLCL Business:

- a. Annual contract \$150 from SLCL
- b. Upcoming events In person events canceled.
- **C. Jefferson College Business:** Dome finished, telescope installed, gate and other reinforcement installed, patio coming, internet approved.
- a. Committee Meeting report:
- b. Upcoming Outreach Event: September 12 grand opening

D. Library Telescope Committee

- a. Budget \$300
- b. Upcoming builds or maintenance events
- c. Maintenance budget \$100
- d. Mileage re-imbursement see above
- e. Promotional materials \$200

E. SLAS Social Events

- a. Budget \$300
- b. Homemade Fest \$100 budget
- c. Star-B-Q \$200 budget Star-B-Q held with success! A little over \$201 spent

Other

F. SLAS Brochures

- a. Budget \$200
- b. Quarter cards

G. Loaner scope Program

- a. Budget \$100
- b. New donations
- c. Replacement Parts for the LPTs -
- d. Items for sale: several items sold, tripods, Criterion scope, Bausch and Lomb scope: check with Military Overlord on olive for sextants

H. SLAS Library

- a. Budget \$500
- b. Other -

I. Merchandise

- J. Telescope Making
- K. Newsletter
- a. Budget \$600
- L. Website
- a. Budget \$690
- M. Social Networking
- N. Night Sky Network was down for about a week
- O. SLASdialogs
- P. Dark Site
- Q. Observing Programs
- R. Star Parties Donation:
- **11. Closing Activities** Brent Buch (finally!) motioned to adjourn Bradley seconded 5-1 approved. Meeting adjourned at 9:00pm

St. Louis Astronomical Society Profit & Loss Budget vs. Actual

January through August 2021

	Jan - Aug 21	Budget	\$ Over Bud
Ordinary Income/Expense			
Income Events Income	1,275.00		1,275.00
Magazine Subscription	2,559.55	1,402.80	1,156.75
Membership Dues	3,425.00	2,700.00	725.00
Total Income	7,259.55	4,102.80	3,156.75
Cost of Goods Sold Magazine Subscriptions	2,386.55	1,368.80	1,017.75
Merchandise	85.92		
Total COGS	2,472.47	1,368.80	1,103.67
Gross Profit	4,787.08	2,734.00	2,053.08
Expense 1-Programs & Events	1,336.56	2,218.00	(881.44)
2-Newsletter	640.02	460.00	180.02
3-Library expense 4-Astronomical League D 5-Loaner Scopes 6-Brochures 7-Insurance	366.70 955.00 1,049.50	300.00 860.00 75.00 200.00 1,050.00	66.70 95.00 (75.00) (200.00) (0.50)
8-Website	239.39	690.00	(450.61)
9-Administrative Expenses	327.28	321.00	6.28
Total Expense	4,914.45	6,174.00	(1,259.55)
Net Ordinary Income	(127.37)	(3,440.00)	3,312.63
Other Income/Expense Other Income Donations	515.25		515.25
Interest Income	22.95	33.00	(10.05)
LTP Receipts	61.02		61.02
Total Other Income	599.22	33.00	566.22
Other Expense LTP Disbursements	554.74		554.74
Total Other Expense	554.74		554.74
Net Other Income	44.48	33.00	11.48
Net Income	(82.89)	(3,407.00)	3,324.11

St. Louis Astronomical Society Balance Sheet

As of September 30, 2021

As of deptember 00, 2021			
	Dec 31, 20	Sep 30, 21	
ASSETS			
Current Assets			
Checking/Savings			
Checking - First Bank	7,587.88	6,450.73	
Deposit, Certificate of	15,925.53	15,945.74	
Library Telescope Escrow	1,206.41	813.53	
PayPal	747.44	549.41	
Savings - First Bank	41,145.74	41,148.82	
Total Checking/Savings	66,613.00	64,908.23	
Other Current Assets			
Inventory Asset	761.53	675.61	
Investment in Mid-States 2	0.00	2,000.00	
Total Other Current Assets	761.53	2,675.61	
Total Current Assets	67,374.53	67,583.84	
Fixed Assets	15,336.00	16,275.29	
TOTAL ASSETS	82,710.53	83,859.13	
LIABILITIES & EQUITY Equity			
Opening Bal Equity	8,497.66	8,497.66	
Retained Earnings	72,581.69	74,212.87	
Net Income	1,631.18	1,148.60	
Total Equity	82,710.53	83,859.13	
TOTAL LIABILITIES & EQUITY	82,710.53	83,859.13	
		100	

We could use articles for the newsletter. The following topics are fine for submission.

- 1. Star party reports. Let us know how a star party you attended went! Photos would be most welcome in addition to the article.
- 2. Observing reports. Actually made it out observing? Let us know how it went. Taken some astrophotos? Please submit!
- 3. Bought something or built something? How about a review or an article!

Send to newsletter@slasonline.org

Upcoming Star Parties and Other Events

For details on these and other upcoming events, check out the Night Sky Network Calendar linked on the Home Page for SLAS at http://www.slasonline.org

SLAS Executive Board Meetings Location will be at Nicoletti's Restaurant in Valley Park All meetings are on First Thursdays unless noted. Note: Board meetings will be via Zoom until further notice.

Nov 4. Dec 2

Dark Sky Observing Dates Nov 6, Dec 4

Francis Park Events: These events are on Wednesdays of the week nearest the first quarter Moon

Sky Orienteering Events For members who want to gather and do some relaxed observing at Babler State Park

Please RSVP if you plan to come!

SLSC Public Telescope Viewing Events: These events are held the first Friday of the month Planetarium shows start at 7pm
On hold until further notice due to Covid 19

Pattonville Observatory Public Viewing Dates See you next year! Maybe!

Broemmelsiek Astronomy Park Public ViewingEvery Friday

UMSL Observatory
For directions and map
http://www.umsl.edu/~physics/About%20the%20Department/astro.html

All sessions include viewing of 1st quarter Moon with additional objects

Skywatch Hotline: 314-516-5706

Saturdays:

LET US KNOW YOU ARE COMING!

To RSVP for any of these events log in to the Night Sky Network and submit your RSVP. If the event is canceled, you will be notified immediately according to the preferences you have selected.

SLAS Events

October

15 Fri	SLAS Regular Meeting
16 Sat	Stargazing at the Arch
16 Sat	Girl Scout Event
17 Sun	St Pius X Astronomy Class
18 Mon	Constellation Tour 60
20 Wed	MSRAL 2022 Planning Meeting
21 Thur	Stellar Soiree
23 Sat	Library Telescope Build

November

1 Mon	Constellation Tour 61
4 Thurs	SLAS Board Meeting
6 Sat	SLAS Dark Sky Viewing
6 Sat	Starry Nights at Stacy Park
7 Sun	Aim for the Stars (Jeffco)
8 Mon	Constellation Tour 62
15 Mon	Scott Library Star Gazing Night
15 Mon	Constellation Tour 63
19 Fri	SLAS Regular Meeting
22 Mon	Constellation Tour 64
25 Thur	Zoom: SLAS New Member Chat

December

2 Thur	SLAS Board Meeting
4 Sat	SLAS Dark Sky Observing
5 Sun	Aim for the Stars - JCO
6 Mon	Constellation Tour 65 - Crater
13 Mon	Constellation Tour 66 - Sextans
14 Tue	St. Louis County Library
17 Fri	SLAS Regular Meeting
20 Mon	Constellation Tour 67
23 Thur	Zoom: SLAS New Member chat
	lanuary

January

1 Sat SLAS Dark Sky Observing !?!?!

For other events, watch the calendar on the website. Virtual stargazing events and other online activities will be registered there. We hope you can join us for some of these activities!

SLAS Merchandise Available

SLAS merchandise is now set up for embroidery at **Headz n Threadz at www.headznthreadz.com**

There is now only one location:

1065 Regency Parkway, St. Charles MO 63303 Telephone: 314.528-8100

sales@headznthreadz.com

Simply take the garment, hat, etc you wish to have embroidered and they will take care of it.

They have the SLAS logo on file. You may make modifications to the colors if you wish.

SLAS Logo is also available at www.Infini-tees.com



Astronomy @ \$34.00 / 1 year

SLAS MEMBERSHIP APPLICATION

OLAO MEMB		IOAIIOII
Name: Last		ST. 100/3
First, Middle Initial		
Address		
City, State, Zip Code		
email address		Founded 1936
		Please send completed form with check (no cash please) made payable to
Youth @ \$10.00 / 1 year (18 yrs or younger)	\$	St Louis Astronomical Society
Individual @ \$25.00 / 1 year	\$	Don Ficken, Membership
Family @ \$40.00/1 year	\$	13024 Barrett Crossing ČT St. Louis, MO 63122
Publications with discount available with you	r SLAS membership:	St. Louis, IVIO 03122
Sky and Telescope @ \$43.95 / 1 year	\$	
(S&T may also be renewed at their website: http://www.skyandtelescope.com)		Check all that apply:

SLAS OFFICERS			
President Jim Small president at slasonline.org	314-307-0692		
<u>Vice President</u> Bradley R Waller vicepresident at slasonline.org	314-481-7250		
Secretary Mark Jones secretary at slasonline.org	636-394-2342		
<u>Treasurer</u> <i>Bill Winningham, (Don Ficken</i> treasurer at slasonline.org	- membership) 636-357-2763		
Hospitality Larry Campbell hospitality at slasonline.org	636-244-2867		
Board Members at Large:			
John Newcomer board22 at slasonline.org Tom Nickelson	314-496-4636 314-346-9565		
board23 at slasonline.org Brent Buch board24 at slasonline.org	314-239-0329		
ALCOR Bill Winningham (Astronomical League Correspondent) treasurer at slasonline.org	636-357-2763		
MSRAL Rep. Jim Small msral_rep at astroleague.org	314-909-7211		

TOTAL ENCLOSED

COMMITTEE CHAIRS

New Member!

Address Change Only
Please send my newsletter by regular mail

Renewal

COMMITTEE CHAIRS				
<u>Dark Site Coordinator</u> Mark Jones darksite at slasonline.org	636-394-2342			
<u>Librarian</u> <i>Jim Small</i> librarian at slasonline.org	314-909-7211			
<u>Library Telescope</u> Program <i>Don Ficken</i> librarytelescope at slasonline.org	636-851-9630			
Loaner Equipment Greg Gaines loaner at slasonine.org	314-277-3082			
Merchandise Vacant merchandise at slasonline.org				
Membership Don Ficken membership at slasonline.org	636-225-0269			
Newsletter Editor Jim Small newsletter at slasonline.org	314-909-7211			
Observing Programs Mark Jones observing at slasonline.org	636-394-2342			
Publicity Rich Heuermann	314-962-9231			
publicity at slasonline.org Recognition Larry Campbell recognition at slasonline.org	636-244-2867			
Social Media Vacant 'SLASdialogs' Moderator Mark Jones, R	honda Whelan			
dialogsmoderator at yahoo.com <u>Star Party Coordinator</u> <i>Bill Breeden</i>	314-276-3613			
starparty at slasonline.org <u>Telescope Making</u> <i>Bill Davis, Jim Melka</i> telescope at slasonline.org	314-469-3061			
Webmaster Jim Small webmaster at slasonline.org	314-909-7211			

Devoted to the Interest and Advancement of the Science of Astronomy

ST. LOUIS ASTRONOMICAL SOCIETY

We're on the Web! http://www.slasonline.org

Follow us on Twitter: @stlastro Facebook: @stlastro

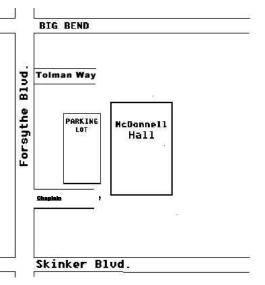


Who We Are and What We Do

St. Louis Astronomical Society is a not-for-profit organization established in 1936. SLAS is devoted to the interest and advancement of the science of astronomy. Our mission is to promote an understanding of the science of astronomy to our members and to the public. Membership is open to anyone with an interest in astronomy.

For more information contact any SLAS officer or visit our website listed above. SLAS is affiliated with the Astronomical League, Night Sky Network and the Mid-States Region of the Astronomical League.

Meetings are held the 3rd Friday of each month at McDonnell Hall at Washington University. See the map to the right for directions.



St. Louis Astronomical Society Jim Small 13128 Cozyhill Drive St. Louis, MO 63122		