Mirror Asymmetry in Life and in Space
by
Dr. Brett McGuire
Massachusetts Institute of Technology

Dr. Brett McGuire of the Massachusetts Institute of Technology will be featured at the November meeting of the Saint Louis Astronomical Society. The meeting will be held via Zoom online conference only, due to the COVID-19 outbreak. The meeting and lecture will begin at 7:30 p.m. on Friday, November 20. Zoom access information below.

Most organic molecules exist in two forms that are mirror images of each other. One of the great unanswered questions in our evolutionary history is why all life forms on Earth and their critical biological molecules, such as amino acids and proteins, use only one of these forms. For instance, sugars are exclusively right-handed, amino acids are left-handed, and even DNA coils into right-handed helices. The phenomenon of single handedness is called homochirality. How and why did our single-handed world emerge? Dr. McGuire will describe how we can peer into the center of our galaxy for the answer. He will also talk about the current understanding of how such an excess may have arisen in the interstellar medium and before the formation of the Solar System.

Dr. Brett McGuire is an Assistant Professor of Chemistry at MIT. He and his colleagues use the tools of physical chemistry, molecular spectroscopy, and observational astrophysics to understand how the chemical ingredients for life evolve with and help shape the formation of stars and planets.

Upcoming Meetings!
December- Maura McLaughlin, PhD Still Thinking About a Topic! University of West Virginia
January- Robert Criss, PhD Galactic Rotation & Dark Matter Washington University
February- Raymond E Arvidson, PhD Perseverance Rover Mission - Mars 2020 Washington University
March- K Michael Malolepszy Probing the Sub-Microwave Universe Part III SLAS
April- Ian H. Redmount, PhD Cosmic Roller Coaster St. Louis University

Thank you SOOOO much for the enthusiastic response to the sale of the telescopes and other equipment last month! We raised $670 for SLAS and $290 for East Central College!

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/j/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
If you need help joining the meeting, don’t hesitate to call Jim Small at 314-307-0692!!
(ps: the link for the meeting is the same each month. It will remain so if there continue to be no problems)
**President’s Corner**

by

Jim Small

I have to say THANK YOU to all who participated in the fire sale of equipment we had last month. It’s great to find new homes for equipment that was previously gathering dust. We ended up making $670 for SLAS and $296 for East Central College! The only things left are a couple of brackets for a 50mm finder.

The winners for the new SLAS Special Recognition Awards have been notified and will officially receive the awards at the December meeting. The budget will be presented at the meeting this month prior to voting at the December meeting. If you have questions, this month is the time to ask!

Have you been taking advantage of the clear weather we’ve been having? I hope so! See you at the meeting!

Sincerely,
Jim Small

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**2021 Astronomical League Calendar**

**75th Anniversary Collectors Edition**

Celebrating our 75th year ending 15 November of 2021

The 75th Anniversary Planning Committee encourages your purchase as these calendars have historical notations of the Astronomical League. Starting in January, events are planned that tie in to the month’s trivia.

Of course, profits from the sales goes to the ALCON Jr. budget.

THANK YOU FOR YOUR CONTINUED SUPPORT AND ENJOY OUR ANNIVERSARY CELEBRATION YEAR!
In 2020 SLAS introduced a new set of recognition awards. These awards are named after deceased SLAS members who made tremendous contributions to St. Louis Astronomy. Nominations for these new awards were solicited early this year. Then a recognition committee reviewed the nominations and selected the 2020 special recognition award recipients. The choices were not easy as there were many wonderful individuals worthy of recognition.

Not all award recipients are SLAS members, but they do share some common attributes:

1. Their service has been a strong testimony to the legacy of each award’s namesake
2. The dedication to the St. Louis Astronomical Society and to the astronomical community in the St. Louis region.
3. Their leadership, passion and friendship has contributed to the operation, stability and growth of our Society.

The Special Recognition Award Recipients for 2020 are:

The Albert M. Obrecht Founders Award
Jim Small

The Lois D. Fitter Outreach Award
Cook Feldman

The Richard D. Schwartz Supportive Faculty Award
Dr. Pamela Gay

The Robert E. Cox Popular Astronomy Award
Dr. Joe Marcus

The Alfred L. Woods Mentoring Award
Thane Bopp
How Has the Pandemic Affected Your Astronomy Hobby?

by

Bill Breeden

I never realized just how much of my observing was done during the many astronomy outreach events hosted by the St. Louis Astronomical Society. Even though I have my own telescope, and I can travel to remote locations during the pandemic, I have missed out on so much general observing during the spring and summer, and now heading into fall.

The Opposition of Mars was October 6 this year, and I missed that. The skies during the first half of October were spectacular, with a string of clear nights and very mild weather. You had to notice it; the weather in the St. Louis area was resort-like. If not for the COVID-19 pandemic, outreach events would have been in full swing, and I would have had many views of Mars, the Moon, Jupiter, and Saturn. The sky has been superb. On October 22, with the mild temperatures and clear skies, I decided to pull out my telescope and have a quick look at Mars from my own backyard. My yard is not good for stargazing - too much noise, light pollution, and too many trees. But tonight Mars happens to be in a clearing between a house and a tree, so I had about one hour to take a look.

Wow. Mars appeared about 22 arc-seconds in diameter, and it will not be larger than 20 arc-seconds again (from northern latitudes) for 15 years. I used my 9mm DeLite eyepiece, giving me 222x. Mars appeared large, and I could easily see the polar cap. The white of the cap seemed to extend 1/4 of the way around the edge, but this was probably due to its low position in the sky (25 degrees above the eastern horizon). I could also just make out some faint brown markings on the side opposite the polar cap.

It was good to be at the eyepiece again, if only for an hour. It has been so long that it was almost nostalgic to set up my telescope. I miss real astronomy! I did not realize how much observing I do at outreach events. With them all canceled due to COVID-19, I am only doing Danville, and that has been sporadic.

Without the various outreach events to motivate me, I simply have not done much lunar and planetary observing this year. Danville dark-sky observing events are still happening, with restrictions and guidelines in place during the pandemic. But they are only monthly, and we average about half of them getting clouded out. My time at the eyepiece has been severely reduced. If you have a backyard that works for observing, I envy you. I must rely on a venue for my stargazing needs. And right now, that venue is Danville, and that may be the case for the foreseeable future.

Outreach and social distancing do not mix. Astronomy outreach is, by its very nature, personal. I greet people, tell them something about what is going on in the sky tonight, and invite them to look through the eyepiece. Parents also have their kids with them, and they hoist them up to the eyepiece as well. Kids touch (and sneeze on) eyepieces, finderscopes, telescope tubes, tripods, etc. Sometimes the parents do this too! Wiping down the eyepiece and other parts of the telescope after each observer is just not practical.

How about a monitor and a video eyepiece? That would work, but I already have lots of equipment to load and set up. I would need to add a large monitor, cables, and another power source. This is probably the best solution, but for me it is sort of a let-down. If I am just going to stream a picture of the Moon or Mars on the screen from my telescope, I may as well just show people pretty pictures on a computer and leave the telescope at home. An image of Mars on the screen streamed from my telescope would not be very impressive, and is no match for viewing Mars through an actual eyepiece.

SLAS made the right choice to halt all astronomy outreach during the pandemic. There is just no safe solution. My telescope stays at home now, only to be set up and used at our Danville dark sky site.

Since I have missed so many sights through my telescope during the pandemic, I have begun to re-think the components of my amateur astronomy hobby. Virtual events have been a stop-gap measure during the pandemic, and this is one way that I have coped with the pandemic. It is great that we have this technology available, but in the long run, nothing really replaces personal interaction and observing the real sky!

Is your astronomy hobby outreach-heavy, as mine is? Are you feeling the loss, missing out on the social aspect of this hobby? Our society is so focused on outreach, that we are now faced with figuring out what comes next. Technology has already changed our hobby so much, and now we have a pandemic forcing us to stop our most common activity. Virtual events are helpful, but we are social creatures, and we enjoy practicing our hobby in the company of like-minded people. That is why we joined SLAS in the first place.

So, how has the pandemic affected your astronomy hobby? Have you found another astronomy outlet? Are you simply doing armchair astronomy and waiting it out? Let us know at SLASDialogs@groups.io. If you have not joined our online community, members may do so at https://groups.io/g/SLASDialogs.

Clear Skies,

Bill Breeden
Assumption Summary – 2021
St. Louis Astronomical Society Annual Budget

Work began on the 2021 budget after the financial close for August 2020. The year to date information is therefore through August 31, 2020 with an estimated projection of activity from September 1, 2020 through December 31, 2021. The budget information was assembled partially based on assumptions developed from the August 2020 year to date actual in areas such as membership information available at that time. The balances of the budgetary items were prepared on a line by line basis by the individual committees and committee chairpersons.

Revenue / Income:
The primary source of Revenue for the Society stems from membership fees that are assessed on an annual basis that is based on the member’s individual anniversary date. The current fee structure was adopted in 2004 where the “Family Membership” was created and set at an annual rate of $40.00 per year. At the same time, the fees for the Youth membership were decreased from $15.00 to $10.00 per year.
The total revenue from the membership fees for 2021 is based on:
- Regular (Adult) Memberships 131 @ $25.00/y $3,275
- Youth Memberships 2 @ $10.00/year 20
- Family Memberships 23@ $40.00/year 920

Albeit that the Society does receive donations for the outreach activities, these donations have been ignored for the purpose of the 2021 budget due to the uncertainty. Donations for plan St. Louis County Library (SLCL) events, for which we have a written agreement are also assumed to be %0 for 2021, due to COVID 19 restrictions.

As indicated in the budget, this will provide operating revenues in the total of $4,215 for 2021. The actual revenues that will be realized during the calendar year may be different due to any changes in the actual membership numbers.

Magazine subscriptions are referenced as a memo item. The Society acts solely as an agent in these transactions as a convenience to the membership. It should be noted that the same “Club” rates for the subscriptions are available to each member in good standing through the Night Sky Network for those who choose that option.

Operating Expenses:
These are expenses that are incurred to run the Society on a month to month basis to provide goods and services to the membership. Some of the expense categories are required to meet specific obligations that enable Society to function as an organization. The balance of the expense categories are considered discretionary and may be adjusted accordingly. The items that will be discussed in detail are the discretionary items.

Newsletter Expense:
The newsletter expense consists of $225 for paper, toner and other supplies, $175 for postage, and $200 for an updated copy of Publisher.

Events
The Homemade Fest budget remains $100. This budget is primarily used to purchase refreshments, plates, plastic ware, and door prizes. SLAS hopes to continue getting the meeting room free of charge from the Science Center or the Kirkwood Community Center. Kirkwood waived the fee in 2020 because of our hosting telescope viewing at Kirkwood Park at least twice a year.
The Star-B-Que remains at $200. This event will again be member potluck with SLAS providing the meat, paper goods, and trivia quiz prizes. SLAS hopes to continue getting the picnic pavilion free of charge. This is normally $80 charge, but Babler has waived the fee because of our hosting Night Skies Over Babler twice a year.
The members in attendance will be asked to provide items as with the Homemade Fest to complement the main course provided by SLAS. This will require that the membership provide their RSVP and number of attendees so the event can be planned accordingly.

Library Telescope Program:
The SLAS Library Telescope program’s was launched into the St. Louis area on November 2014. In just a few short years, the program has grown to one of the largest and most successful programs in the country. On all fronts, the library telescope program is demonstrating success.
The LTP Committee’s focus for the upcoming year will be on the following four areas:
- $100 – maintenance budget to cover all the little things that we need to keep the telescopes in top shape (the big things we charge to the libraries) and to reimburse mileage for SLAS Members who travel to multiple library locations to perform maintenance or repair on the library telescopes. The rate will be the current IRS rate for charitable contributions ($14) (IRS.gov). The SLAS member requesting reimbursement should provide a spreadsheet log documenting their travels. This should include: dates, mileage, and locations visited. Reimbursement requests should be made quarterly.
- $200 – funding for replenishing promotional material/handouts such as business cards
- The Library Telescope Committee requests $300 in operating expenses to cover items 1 and 2 above.

Meeting Expense:
Meeting expense is comprised of Meeting Refreshments and Meeting Speaker Fees. The meeting refreshments are self-explanatory and have been budgeted at $360 same as the 2020 budget level. Due to COVID 19 related limitations on in person meetings, the refreshment budget will be prorated to the extent that in person meetings actually take place. The Meeting Speaker Fees are used primarily to present honorariums to guest speakers and occasionally to partially offset travel expenses. The speaker budget has ranged between $250 and $600 in recent years. The 2021 speaker budget will be $400, which includes expected travel expenses (unlikely) for 1 to 2 speakers and a stipend for 1 to 2 graduate student speaker.

Membership Initiatives:
SLAS regularly holds “Welcome Aboard” meetings for new SLAS members. These meetings take place before the Monthly Meeting. New SLAS Members are given a SLAS Informational Folder containing information about SLAS resources and other related Astronomy topics.
The budget for Membership Initiatives was increased from $400 to $450 for 2021. Membership Initiatives, as in recent years, plans to hold raffle events during 2021 to partially offset travel expenses. The speaker budget has ranged between $250 and $600 in recent years. The 2021 speaker budget will be $400, which includes expected travel expenses (unlikely) for 1 to 2 speakers and a stipend for 1 to 2 graduate student speaker.

Membership Recognition:
The membership recognition budget for 2020 is $420. This budget include cost for Night Sky Network pins and certificates, recognition of members for continuous membership in SLAS and for contributing time for other SLAS functions, including the recently adopted award program. The budget includes the costs for the five new awards were made available beginning in 2020, including plates for the main award displays, individual plaques for award winners and associated mailing costs. This budget item is lower
than last year’s budget of $900, primarily due to the one time startup costs of purchasing the larger multi-year plaques to be displayed at SLAS meetings. A membership recognition committee was formed and an email address, recognition@slasonline.org was set up so that recommendations can be submitted to the committee.

Library:
Library expenses for 2021 includes approximately $200 for globes, $300 for the purchases DVD’s and books.

Loaener Scope Program:
For 2021 the budget is $100 which is intended to cover miscellaneous repair cost. The loaner scopes are in the process of being relocated to a more accessible location. This amount does not include proceeds from the sale of excess loaner scope inventory, which will be reinvested into the loaner scope program.

Outreach:
The outreach budget for 2021 is $500. The budget is intended for the purchase of shirts for members who complete outreach training and participate in outreach events, handed out quarterly. Additional details of the training program will be announced as the new year approaches and as COVID related restriction evolve.

Website/Technology:
The budget for the Website and internet related technology was increased from $625 to $690 for 2021. The budget includes approximately $260 for website hosting, $110 to maintain Group.IO (replacement for SLAS Dialogs), various web address licenses, and $200 to purchase a SLAS owned ZOOM account for virtual meetings and virtual sky tours.

Dark Sky
SLAS will donate $400 to the International Dark Sky Association of Missouri to be used to sponsor a booth at the national meeting of the International Dark Sky Association in St. Louis at Union Station. Sept 27-28

SLAS Brochures:
The brochure expense consists of $300 for paper and toner and potentially another order of “Quarter Card” handouts.

Summary:
The Board and participating committee members have adjusted several budget items in recognition of the COVID-19 pandemic. Some items will be prorated to the extent that in person meetings continue to be restricted. The budget also includes the addition of a Zoom license that will allow SLAS to host and record virtual meeting. Note for 2020, Zoom meetings were conducted using SLAS member’s Zoom accounts. Expected revenue is down for 2021 due to the uncertainty surrounding St. Louis County Library District events that historically resulted in compensation to SLAS for running Library Telescope training events. The net result is 2021 budget as presented equals a net loss from operations of $3,607, compared a budgeted net loss of $2,756 for the 2020 and a budgeted net loss of $2,655 for the 2019. Meeting the projected expenses for the upcoming year will require supplementing the operations from cash reserves to the extent donations and other revenue sources do not make up the shortfall. Please note that the above budget summary does not include the remaining special budget approved by the membership that is reserved for moving and setup expenses for the Jefferson College observatory, nor does it include the expected depreciation expense associated with the observatory. All attempts have been made during this process to continue to provide valued programs for the membership.

If you have questions about the amounts presented in this budget, please direct them either to me or the relevant committee chairs.

Respectfully,
Bill Winningham, Treasurer
### ST. LOUIS ASTRONOMICAL SOCIETY
PRELIMINARY OPERATING BUDGET - 2021

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**Net Income/(Loss) From Operations**

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**Required versus Discretionary Spending**

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**Balance for Discretionary Items**

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**Actual Historical Net Income for prior years**

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**Other Expenses**

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Note: Doesn't currently include lens/scope sales or escrow receipts.
Executive Board Meeting Minutes Sept. 3, 2020

1. Opening Activities
   a. Attendance: Officers: Jim Small, Mark Jones, Brent Buch, Brad Waller, Larry Campbell, John Newcomer. Members: Jeff Carpenter, Bill Poletti
   b. Meeting opened at 7:03pm via Zoom

2. Upcoming General Membership meeting topics:
   a. Speaker. October Speaker is Marco Cavaglia, PhD, Black Holes: Astrophysics Final Frontier
   b. Special Awards needed: Awards will be planned for November
   c. Speaker Press Release: Brad sent October and November speaker bios to Jim and Rich H. for release
   d. Special Business needed: Hope to sell some astro items at October meeting. Descriptions to be published in newsletter
   e. A101: Send out invite to share Mars photos at meeting. Jim will send out NSN blast for photos for newsletter and meeting

3. SLAS Financial Report
   b. Profit/Loss report. Net YTD income of $619. Expenses lower than expected, $815 spent on Astro League dues. Reports thru end of September
   c. Corporate filings: State filing due each August 31, Tax filing each May 15

4. Speaker Committee
   b. Open dates for 2021- May 2021, possibly Larry Bartoszek, Periodic Table
   c. Topics of interest – Mars 2021
   d. Stipends - no more stipends expected for 2020
   e. Travel - no more travel expenses expected for 2020
   f. Upcoming speakers: see below

SLAS Monthly Meetings Presentations 2020
Month Name Topic Sponsor
16-Oct-2020 Marco Cavaglia, PhD Black Holes: Astrophysics Final Frontier Univ of MO Science & Technology (Rolla)
20-Nov-2020 Brett McGuire, PhD Mirror Asymmetry in Life and in Space National Radio Astronomy Observatory: West Virginia
18-Dec-2020 Maura McLaughlin, PhD Still thinking about a Topic :) University of West Virginia

5. Membership Initiatives
   a. Budget - $400, Balance $62
   b. Welcome Aboard Meetings. Need to start Zoom type meetings for new members, Mark J. to write-up proposal. Thursdays might be a good day for such meetings.
   c. Raffles – none planned for 2020
   d. Attendance prizes this month - none planned, next prizes will be in December

6. Membership Recognition
   a. Total Budget $900, balance $763
   b. NSN Outreach Awards: Buy NSN pins in December
   c. Membership Report: Our member count is 188 at month end which was up by eight members over last month due to a surge of new memberships in-cluding four new family memberships. We are six members above the start of the year.
   d. Member anniversary awards. Plan for November or December meeting. Mark J. to calculate anniversarys for Larry. Bred to print out new certificates.
   e. New Award program - $600 budget, $600 balance
      1. New Award Committee report: ??, Chair – Larry Campbell, Jim Small, Mark Jones, Cook Feldman, Sharon Bertram, Fred Schovanez, Bill Neubert
      2. New Award Policy and nomination process – awardees chosen
      3. Submittal deadlines –
      4. Nomination reviews: Nomination reviews completed in September
      5. Award selection: selections made and award letters to be mailed
      6. Plaques purchased: Larry to talk to Mueller’s South St Louis Hampton about plaque designs. Larry to set up meeting for design of plaques. Individual and perpetual plaques.
      7. Awards presented: Presented in November or December

7. Outreach
   a. Budget - $1100, balance (Spent Francis park signs and SLAS General Meeting A-frame=$297.24)
   b. Member Training Program Status: on hold for the time being.
   c. Purchase of T-shirts for volunteers completed training - on hold for the time being.
   d. Purchase of lawn signs: Bradley working on SLSC signs with John Newcomer to fit an A-frames.
   e. Upcoming outreach events: Virtual outreach for this fall
   f. Awards/recognitions – NSN awards early 2021
   g. NSN Outreach hours YTD – no report
   h. Virtual zoom events to SLCL, 2-4 events Jan-Feb 2021


9. New Business: None

10. Other Committee Reports: If needed

A. SLSC Business: a. First Friday actions: Brad will talk to SLSC about when to start outreach events b. Other immediate business

B. SLCL Business: a. Annual contract – virtual programs for winter to be chosen tomorrow b. Upcoming events – see NSN calendar


D. Library Telescope Committee a. Budget – $650, balance $563
   b. Upcoming builds or maintenance events – none planned for 2020
   c. Maintenance budget - $200
   d. Mileage re-imbursement - $250
   e. Promotional materials - $200

E. SLAS Social Events a. Budget - $300, balance $229
   b. Homemade Feet - $100 budget
   c. Star-B-Q - $200 budget, cancelled for 2020

Other

G. Loaner scope Program a. Budget - $100, Balance $32 – Mark Jones and Jim Small processed the two 10” Meade telescopes (LX-50 and LX-200) and moved them to the trailer at Jefferson College Observatory. Photos were taken and items were inventoried and marked.
   b. New donations – a mint condition Meade 10” LX50 telescope including soft case and heavy-duty tripod and wedge.
   c. Replacement Parts for the LPTs -
   d. Items for sale Already sold the Tasco 4.5” reflector for $100 to Ed Frey. More to be included in newsletter for sale. Proceeds to be used for Loaner scope program. Observatory, or some items for East Central College.
   e. Brad needs to pick up LTP that John has repaired and Brad will install fanny pack.

H. SLAS Library a. Budget - $400, balance $317
   b. Other - Board decided to order Eclipse globe for $109

11. Closing Activities
   a. Motion to adjourn by Brent B. second by Bill W. Meeting adjourned at 9:35pm
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 astro photos? 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.

Dec 3

Dark Sky Observing Dates

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 Dec 4

Pattonville Observatory Public Viewing Dates

See you next year! Maybe!

Broemmelsiek Astronomy Park Public Viewing
Every Friday by appt

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:

SLAS Events

November

16 Mon Constellation Tour 21
20 Fri SLAS Regular Meeting
21 Sat Modifying Library Telescope
23 Mon Constellation Tour 22
30 Mon Constellation Tour 23

December

3 Thur SLAS Board Meeting
4 Fri First Friday
6 Sun Aim for the Stars - Jeffco
7 Mon Constellation Tour 24
12 Sat SLAS Dark Sky Observing
14 Mon Constellation Tour 25
18 Fri SLAS Regular Meeting
21 Mon Constellation Tour 26
28 Mon Constellation Tour 27
31 Thur New Year’s Eve!

January

1 Fri Happy New Year!
4 Mon Constellation Tour 28
7 Thur SLAS Board Meeting
9 Sat SLAS Dark Sky Observing
11 Mon Constellation Tour 29
18 Mon Constellation Tour 30

February

4 Thur SLAS Board Meeting
6 Sat SLAS Dark Sky Observing
19 Fri SLAS Regular Meeting

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

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 MEMBERSHIP APPLICATION

Name: Last ____________________________________________________________
First, Middle Initial _______________________________________________________
Address _______________________________________________________________
City, State, Zip Code _______________________________________________________
email address ___________________________________________________________

Youth @ $10.00 / 1 year (18 yrs or younger) $________
Individual @ $25.00 / 1 year $________
Family @ $40.00/1 year $________

Publications with discount available with your SLAS membership:
Sky and Telescope @ $43.95 / 1 year $________
(S&T may also be renewed at their website: http://www.skyandtelescope.com)
Astronomy @ $34.00 / 1 year $________

TOTAL ENCLOSED $________

Check all that apply:
___ Renewal
___ Address Change Only
___ Please send my newsletter by regular mail
___ New Member!

Please send completed form with check (no cash please) made payable to
St Louis Astronomical Society
Don Ficken, Membership
13024 Barrett Crossing CT
St. Louis, MO 63122

SLAS OFFICERS

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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.