The Search For the Sun's Siblings
by
Dr. Bruce Wilking
University of Missouri - St. Louis

Dr. Bruce Wilking will be featured at the July meeting of the St. Louis Astronomical Society. The meeting will begin at 7:30 PM Friday, July 21, in McDonnell Hall, Room 162, on the Washington University campus, Saint Louis, MO 63130. McDonnell Hall is accessible from Forsyth Boulevard via Tolman Way. Yellow zone and street parking are available to the audience. The event, cosponsored by NASA's Missouri Space Grant Consortium, is open to the public free of charge.

Most stars in our Galaxy are born in clusters of a few dozen to a few hundred stars. These cluster stars slowly drift apart and disperse over time. Dr. Wilking and his colleagues have studied the dynamical state of a very young cluster. They see evidence that stellar encounters pump up the relative velocities of the young stars as they emerge from their dense gas cores. Dr. Wilking comments “Evidence is mounting that our Sun formed as part of a cluster that included a massive star that evolved into a supernova. This explains the enrichment of certain elements in meteorites.” He will explain how conditions that existed when the very young Sun was part of a star cluster have affected the solar system of today. He will also discuss recent searches for stars with the same age and chemical composition as the Sun's and the possibility that a solar sibling may someday be found.

Dr. Bruce Wilking is a Professor of Astronomy at the University of Missouri-St. Louis. His research interests involve star formation and the study of the clouds of dust and gas from which stars form. He has been a member of the UMSL Physics & Astronomy Department and St. Louis Astronomical Society since 1984.

Upcoming Meetings:
August: TBA
September: SLAS Collective Solar Eclipse Results
October: Heinric Krawczynski, Wash U
November: William McKinnon, PhD PLUTO Wash U
December: Amy E Kimball, Radio Quasars & the VLA
Presidents Corner - Jim Small

The 2017 St. Louis Eclipse Expo was fantastic! See the article by Grant Martin with a review. Everyone was raving about it. About 4500 people attended with 400 or so attending the panel discussion on Friday night. See the photo gallery for more information. Many exhibits informing the public about where to go, what to do, activities to explain how eclipses work, many talks, and plenty of stuff to buy highlighted the event. Many people were required to put this event together, but none worked as hard as Don and Donna Ficken to put it all together. Many thanks to Don for a supreme effort!

Talks on photography, how to enjoy the eclipse, equipment, etc. reigned. There were even discussions about traffic that will be expected the day of the event. Missouri might get as many as 31 million visitors coming to see the eclipse here!

There is still much to do preparing for the eclipse and we have plenty of programs to volunteer for in advance of the event. There are even more programs to volunteer for after the event, so don't forget to RSVP!

If you are using equipment, don't forget to practice before the eclipse! Are those batteries charged? Do you have a checklist? Best of luck for whatever you decide to do!

We are tentatively planning for the August meeting to be held at the Planetarium on the 18th to accommodate the anticipated large crowd. As soon as we know, we will announce the meeting.

In preparation, we are asking Cindy Preszler to speak at the August meeting. In order to do that, we will ask the membership to accommodate the board with the $250 fee for Ms. Preszler. We will be voting on a resolution asking for said fee at the July Meeting. It will be stipulated that the fee will only apply if we are able to obtain a large venue for the meeting. Below is the wording of the resolution:

The board approved a request for funds to be voted on by the membership for $250 to cover the fee to have Cindy Preszler speak at the August 18 SLAS regular meeting. Said fee will only be applied if we are able to obtain a large venue such as the Planetarium for the meeting. If such a venue is not possible, the fee will not be approved.

The request will be voted on at the July 21st meeting.

We are looking forward to an exciting month here in St. Louis as the area will be bustling with activity for the eclipse!

We will put out an extra edition with information about the eclipse including where to go, how to experience the eclipse, etc.

Look for it in the next couple of weeks!

Where will you be???

Clear Skies!

Jim Small

Outreach Volunteers

SLAS members have logged 1031.5 hours for NSN outreach events!
Members with 5 or more events for 2017 qualify for the Night Sky Network pin. Check NSN for opportunities and sign up today.

Thank you so much to all our volunteers!

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<tr>
<th>Name</th>
<th>Events</th>
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<td>Donald Ficken</td>
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<td>Cook Feldman</td>
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“Time flies, then you panic”. A truism experienced by most of us - especially me. I remember the first time I found out about the TOTAL solar eclipse that was going to happen right here in The Lou! They said August of 2017. I was all like “I better start preparing now!” That was 50 years ago. Where oh where has the time gone?

I’ll tell ya where: Life. Time slips by and before we know it, we’re pulling up on a once in a lifetime event like a speeding car to an intersection with a light that just turned red.

The August SLAS meeting marks 31 days before the eclipse. Are you ready? I thought so. Neither am I. So much to do, so much to plan, so much forgotten till the last minute. And really, you don’t think 31 days isn’t the last minute? Really? After being given 50 years to prepare and plan? Yeah, me too.

A while ago I attended a totally excellent expo covering the eclipse. Don Ficken, Jim Small and the rest of the expo volunteers need some kind of reward for what they put together. They covered more bases with more detail than I could ever imagine. Learned a few things I did. Added more than a few days to my planning and preparation schedule it did – dangit.

Here’s what they covered: Eclipse resources, Emergency management, Interstate travel, local travel, Weather predictions, How to photograph the eclipse (Two separate & different sessions), Safe solar observing, Circumstances of the eclipse, Types of solar observing, Where to observe the eclipse, HOW to observe the eclipse, Things you’ll need to have and things you’ll need to be aware of. Man, the list goes on.

Bullet points all. They drilled down to a medium level of detail. There were some things I had not considered and when I started digging into the nitty gritty, I found that four weeks (31 days actually, almost two fortnights) might almost be enough time to get half the things ready that I need to get ready. I’m now spending more time striking things OFF the list than I am completing things ON the list (I suppose that counts as making progress on completing the list though doesn’t it?).

Things leaving the list include such luxuries as lodging. I procrastinated on making reservations earlier in the decade - even at a roach motel 30 miles from any part of the centerline so now it’s too late to do so – but hey, I do have a van and there WAS that EXCELLENT primer on

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weather predictions given by the crack meteorological team of Cindy Preszler and Mike Roberts…

On the bright side, I can live in that van down by the river (near any part of the centerline) while I wait for the eclipse to start. The weather portion of the expo convinced me that paying good money to reserve a high priced room on the centerline might get me nothing more than a dry place to watch the eclipse on TV - between storm induced power outages – mobility appears to be the key to seeing the eclipse under CLEAR skies. So there is that.

Time to get serious: Time really is slipping by (I have to have this article submitted in 30 minutes).

I have included a calendar showing how little time we really do have left. The calendar includes known eclipse related events & meetings – chances to compare notes and revise plans. Of note is the July 26 AP Sig. If you are interested in photographing the eclipse (and protecting your equipment from the sun), this is the meeting to get to. I’m not sure of the beginners meeting topic on August 3rd but the organizers are saying it’s going to be eclipse related. Stay tuned for more.

The calendar also shows three tentative nights reserved at the Weldon Springs containment site. These nights are being reserved for several eclipse planning & equipment workshops. Stay tuned to the local Yahoo and facebook astronomy groups for upcoming details. Meetings are open to all.

One of the big takeaways from the expo is this: We won’t really have a good idea where the clear areas along the center line will be until Saturday August 19th. If you’re mobile, that gives you less than two days travel time to get to a clear sky location. It’s clear that by Monday August 14, we should be packed up and ready to move to a place that gives us that 36 hour travel window – that pretty much eliminates a week that can be used to prepare and test equipment. Time flies when you’re having fun doesn’t it?

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Do you have your photography plans in place for the eclipse? At right is a series of photographs taken by Jim Melka of the 1994 annular eclipse in St. Louis.

Be sure to prepare for the eclipse by practicing what you plan to do with your setup for photography/observing!

Make a checklist of equipment, make sure all batteries are charged and most of all, KISS! (Keep it simple, stupid!) You don’t want to miss the eclipse because you were messing with your equipment!
Above: Crowd at the panel discussion for the meeting Friday night, Christian Greer was the MC.
Inset: Looking over the 56 foot eclipse map.
Below left: One of the 11 activity areas.
Below right: Exhibitors speakers area.
Bottom left: The SLAS booth manned by Marlene Bopp and Nancy Clark. Thanks! They ran the drawing for a telescope giveaway courtesy of Explore Scientific!
Bottom right: You guessed it! Flat Earth!
When Christine Nobbe told me that there was going to be a space conference at Union Station I assume it was going to be a small gathering of a few speakers discussing space travel topics. Having been partially involved in the local group which consists of a few members and after attending a couple of the planning sessions I assumed it would be at best something smaller than a Mid-States convention. I thought it would have just a few dozen attendee’s and perhaps one good and a bunch of low level speakers (guys like me) giving presentations. Plus the base cost of 300+ dollars was I thought way too high to hear a few speakers, despite the discounts she mentioned.

To say I missed the mark is probably the greatest understatement of my life! This was a huge 5 day event with world class engineers, global corporations, entrepreneurs and government officials who were experts on all aspects of space travel and space business. This was truly an international event with attendees from all over the country and the world; as far away as Romania, Pakistan and Japan. This wasn’t just a few speakers but 70+ world renowned authors, such as Robert Zubrin, and top engineers who are leading the way into space and frankly leaving NASA in the review mirror.

The conference was 5 days of talks and demonstrations running from 9am till 9pm ranging from huge ballrooms with hundreds of attendees to small groups of a dozen or so. Topics were too many to list ranging from developing much cheaper rockets, space settlement, tourism and asteroid mining business opportunities, to plans to colonize and create self sustaining colonies on Mars and the Moon. Future robotic exploration and the next generation of space telescopes covered my astronomy interest but there was so much more. The biggest problem I had was which speaker to attend. They were all inspiring and really opened my mind to an industry that I didn’t know even existed.

The smaller groups ranged from the Chicago society’s set up of a space speaker’s bureau to student design projects to look for alternative approaches to solving the problems associated with living and traveling into space. One of the most remarkable talks was by two 7 and 4 year children who used satellite imagery to detect drought and to warn nearby countries of an expect influx of refugees.

The main speakers had truly remarkable ideas and concrete engineering plans for space elevators and an evacuated tube that would be lifted up to 80 miles above the Earth using centrifugal force. This tube would be reached using smaller space elevators and would carry a maglev train for rapid transit across large portions of the Earth. It would be paid for by selling parts of tube for resort homes (this is how London Bridge was financed) and could be used as a stepping stone for building and launching spacecraft into Earth orbit and deep space.

Again many of these are concrete plans with hardware being tested as we speak. Many sessions covered space business with far sighted entrepreneurs getting in at the ground level of the potential bonanza in space. Paul Allen and Jeff Bezo’s are just of the few of the many who will become the next Bill Gates in the next few decades. I thought NASA was the only one playing the game but now I know there are hundreds involved in a world wide industry ready to create our future in space.

In my opinion the best speaker was Robert Zubrin who made a very convincing argument with concrete plans to get to Mars at a much more affordable cost than the way NASA is planning on doing this. This was a recurring theme throughout the conference. That NASA was a bogged down bueracracy who’s main role now is to get political support to create jobs and stretch out programs as long as they can; sort of like the military industrial complex. It took a young NASA using slide rules 6 years to build the Saturn 5. Now it’s spent 15+ years using modern computers and materials to develop a comparable booster. Space X and others are doing the same job using free market efficiencies to develop comparable rockets at a much cheaper cost.

Another debate was the direct to Mars versus going to the Moon/space station route. I’m for both but I became convinced that going direct to Mars, because of the available resources, is better that going to the Moon first.

**Hope for the Future**

This conference was so much more than I expected. I got in free for volunteering (although I spent over $100 for parking fees) but I would truly have spent over $1000 for this mental vacation into space. It wasn’t just learning about mind expanding new ideas that got me excited this space conference was so much more than that. It gave me hope for the future and I left on a mental high like I’ve never experienced before.

As a teacher of geography I’m constantly teaching my students about how we are polluting and destroying our planet in a constant search for food, fuel and natural resources. Many of the wars we’ve fought (i.e. WWII) were started by countries who felt they had to take the resources of their neighbors to maintain their economies. Much of our military resources are spent protecting our access to the oil rich areas of the world. I also assumed that it would be increasing expensive to get the resources required to elevate the globe’s population to a reasonable standard of living and that to do so would cause irreparable harm to and eventually destroy the environment through pollution, climate change and destruction of habitat.

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ISDC

This conference opened my eyes to the limitless resources that space has to offer. We’ve got a near endless supply of minerals through asteroid mining and energy from space power satellites to name a few. We can do this without wrecking the planet or imposing constraints on economic or population growth. The future entrepreneurs will soon lead us, using concrete, financially sound, plans to the Promised Land. This land will open up possibilities we never dreamed of and possibly end many of the conflicts of who owns what.

The ultimate goal is to put heavy industry and mining into space and turn Earth into a lush Garden of Eden and return it to its natural beauty and in the process save humans and the many species that are going extinct. Is this a pipe dream? If you had attended this conference you would have certainly realized that we are on the verge of this happening.

COMET WORKSHOP AUGUST 23

St. Louis Astronomical Society members are invited to the Sixth International Workshop on Cometary Astronomy (IWCA VI) (http://www.icq.eps.harvard.edu/IWCA6.html), to be held Wednesday, August 23, 9:00 a.m.-5:00 p.m., at Washington University, Rudolph Hall, Room 204.

IWCA VI is sponsored by the International Comet Quarterly (Harvard University) and the Department of Earth and Planetary Sciences, Washington University. Previous IWCAs have been held in Selvina, Italy, Cambridge, England, Paris, Shanghai, and Rio de Janeiro, usually in association with an astronomical event (in this case, the total solar eclipse) that tends to attract international astronomical visitors to a region.

There is no registration fee. A light breakfast and refreshments during breaks will be provided.

Please RSVP to Joe Marcus, local organizer at josephnmarcus@gmail.com or 314.993.5340). Volunteer assistance is welcomed.

Come Meet the Festus Rocket Team!

It is too hot outside, so you are invited inside to attend St. Louis Space Frontier’s July meeting! Meet the Festus Rocket Team, winner of the June 2017 International Rocketry Challenge in Paris, and hear about their high-flying adventures. Enjoy fire-y snacks! Learn about Thermionic Emissions in a brief presentation by Dabney Tolson.

Details: • Saturday, July 22 • 12:15pm
• Oak Bend Library 842 S Holmes Ave, Saint Louis, MO
(please note that we are NOT holding this meeting at WashU)

Please invite others who are interested in rockets and rocket propulsion!

To learn more about the team’s big win see:

Opening Activities: Attending: Jim Small, Brent Buch, Brad Waller, Bill Winningham, Mark Jones, Rich Heuermann. Meeting opened at 7pm. May Meeting minutes distributed before the meeting. Jim motion to accept minute Brent second motion passed

2. External Business Next board meeting: Jul 5, Wed, Aug 9, Sep 7, Oct 5, Nov 9, Dec 7. July first Friday has been cancelled due to Planetarium being closed for special event

3. Director Reports:
   President – Jim Small: 1. Expo is really gearing up. 4400 visitors registered (have you registered??) 70 exhibitors, eclipseexpo.org 2. 281 tickets sold for Friday night meeting. Limit 600. (do you have yours yet?) 3. Mid-States June 9-11 Registration link at meral.org 4. ISDC May 25-29. Watching over 200 people every day. Great party Sunday night. Lots of student groups from India, South Korea, Japan, China and Romania. Worth the time. 5. We need to set up a meeting tonight for recognition committee sometime after the Expo. 6. Social networking committee should meet after the expo. 7. Loaner scope transfer: Loaner scope selloff before the July meeting for SLAS members, Auction at the meeting if not sold by then. Transfer of loaner scopes to Jim Small's house will take place after expo. 8. Elections: Thanks for volunteering for another year!

Vice President: Brad Reflective Vests Project – Current inventory most are shirts, 5 only vests, other items were shirts and some pants. Need to go forward with the buying the vests with logos Business Cards: For VP contact information to hand out to potential speakers. Brad proposed to buy Avery cards and print as needed. Brad will buy thumb drives to allow Brent to copy meeting video. Expense will come out of Speaker Budget Funds for DVDs (Blank) for our Presenters, New SLAS Hand-out Cards, on hold

Ideas for new SLAS Mug best member Solar Eclipse Photo Telescope for Kansas HS Astronomy Club, Speaker for 2018: Permission from the Board


2018 Speakers 19 Jan- Carl Bender, PhD Black Holes and Hawking Radiation, *16 Feb - Ryan Oglione, PhD From Stardust to the Solar System, *16 March - Michael Medford Discovering Planet 9 (10) “Skype”, *20 April - Kun Wang, PhD New Evidence for the Origin of the Moons of Neptune, *11 May - Francesco Ferrer, PhD In the wake of Higgs, what will the next breakthrough at LHC?

Summer Solstices 2017 Winners

August meeting ideas: Weatherman, partner with Science Center, opportunity to really promote SLAS? Who will be here? Who will need time to travel/prepare? Informational meeting: Weather, Safety, Where to go, Astro 101 – July – Solar Eclipse Apps of cell phone brackets, August Welcome aboard new members meeting still planned for each month.

Secretary – Mark Jones: No report

Treasurer/ALCor – Bill Winningham: Reports thru end of May sent out before the meeting. Two biggest projects for the year, LTP and Eclipse Expo have a lot of income but expenses will be paid by end of July. Expense are under budget by $800. Membership income is ahead of budget by $580. St Louis County Library Eclipses Related Programs income should be received by end of July. $750 in donations received this year. Board might want to consider the SLAS meeting after the expo the possibility to buy more eclipse glasses

Hospitability – Larry Campbell: No report Membership recognition – Committee meeting? Sometime after expo? Invites for committee? Program determined by July meeting? Is that a reasonable deadline? Or should we wait until after the eclipse?

Board member at large reports
Brent Buch (2018) Working on ZAMP installed an apache webserver hosting tool. Working on free video file share. By next meeting Brent plans to demo the video share set up on his laptop.

Rich Heuermann (2019) ISDC good flow through SLAS exhibit. Door prizes delivered to ISDC (solar bino, and 10x50 bino). Eclipse programs are continuing indoor program draw better than outdoor programs. Trout Lodge - Has drawn down from Trout Lodge Escrow Account. 42 Galileoscopes received from Washington U. Rich H has transfer letter and will give to Don Ficken. Rich will submit receipts to AAS and report and AAS will send check for the $5000 grant.

Tom Nickelson: (2020) No report

4. Committee Reports: If needed

Library Telescope Program: Latest build results. 97 GalileoScope solar built, 8 StarBlast LTP Merchandise – Infini-tees shirts for sale - $20, Newsletter – Articles and pictures (especially pictures) are welcome to beef up the newsletter and our social media outlets. Please forward to news-letter@slasonline.org Discussion about redesign of brochure and what to do with them. (content, replace with cards, supplement with cards, reduce to front and back handout, etc.)

Website – www.slasonline.org/po mailing plans in place to activate new edition of website before the expo

Social Networking – Public Facebook and twitter accounts going well. Submit pictures to Michelle for incorporation into facebook account, both ID’s are stlatro Facebook pages are also active for the eclipse and for the expo. Private facebook page is also active Members-Only FB: https://www.facebook.com/groups/slasonline/ Public FB: https://facebook.com/stlouisastro/ https://facebook.com/slouis eclipse2017/https:// facebook.com/eclipsese committed Twitter – @slatrop

Night Sky Network – Donated 3200 eclipse glasses as part of MegaMovie project. These will be given away at EclipseExpo.

Loaner – Scopes More donations: 10 Meade LX200 ACF w/tripod and GPS, another possible LX200 with no tripod, 4.5” Meade 4500 equatorial reflector with slow motion controls. Scope sale will likely be at the July meeting before the eclipse. There will likely be a sale of Sky and Telescope and other magazines and possibly books at the same time.

Publicity – SLAS June press release should be out by June 8th

Star Parties: Review of outreach events next 3 months

5. Old Business Board agrees to table the proposal to Membership committee. Recognition Proposal from December 2016. An annual membership recognition award called “The Lois Fitter Lifetime Outreach Award” be created to recognize long-time outreach volunteers who have volunteered for 5 or more years of outreach for the society with a minimum of 5 events per year. A nomination form and selection committee will be created by the membership recognition chair and the award will be presented (if nominations are available) when outreach volunteer recognition pins are presented. Discussion took place with Board. Proposal was moved to Recognition Committee for development of a comprehensive recognition program that goes beyond Outreach. Prior to meeting Mark Jones sent out the following ideas for recognition awards for members and non-members who support our mission: The Lois Fitter Outreach Award - given to most dedicated or most improved outreach participant or coordinator must be a SLAS member The Stuart O’Byrne Founders Award - given to board or committee person for service to SLAS, must be a SLAS member The Dick Schwartz Supportive Faculty Award - given to local educator at HS or college level who support SLAS mission don't have to be SLAS member The Robert Cox Popular Astronomy Award - given to person having major contribution to popularizing astronomy does not have to be SLAS member The Al woods Mentoring Award - given to local amateur contributing to mentorship in astronomy, telescope and gadget making.

6. New Business

7. Closing Activities Meeting adjourned 9:06pm
Wanted: Volunteers!

Be sure to sign up on Night Sky Network for upcoming star parties. Lead volunteers need to know who will be there so they can tell where we are falling short. If you aren’t sure how to RSVP, please ask anyone at the meeting and we can show you how on the computer after the meeting. Or contact any board or committee member to find out. See you at the next star party!

WANTED: Newsletter Articles and Pictures!

The Event Horizon needs articles and pictures from people like YOU!

Interviews, current astronomy topics, historical articles, star party reports, you name it, we can use it!

Send what you have 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 the Edward Jones YMCA All meetings are on Thursdays unless noted.
2017: Aug 2 (Wed); Sep 7; Oct 5; Nov 9; Dec 7

Dark Sky Observing Dates
See you when it gets warmer!! Use SlasDialogs or Facebook to coordinate winter events!

Francis Park Events: These events are on Wednesdays the week nearest the first quarter Moon
July 26, August 30, September 27, October 25

Sky Orienteering Events For members who want to gather and do some relaxed observing at Babler State Park orienteering. Please RSVP if you plan to come!

2017-08-13 8:00 PM
2017-09-17 7:00 PM 2017-10-15 6:30 PM
2017-11-12 6:00 PM 2017-12-10 5:30 PM

SLSC Public Telescope Viewing Events: These events are held the first Friday of the month Planetarium shows start at 7pm

July
21 Fri Bee Tree Park Day Camp
21 Fri SLAS Regular Meeting (Wash U)
22 Sat SLAS Dark Sky Observing
24 Mon Grants View Library Eclipse
25 Tue Cliff Cave View Library Eclipse
26 Wed Francis Park Stargazing
26 Wed Grand Glaize Library
27 Thur Weber Road Library Eclipse
29 Sat Webster Groves Solar Program

August
2 Wed SLAS board meeting
4 Fri SLSC Public Telescope Viewing
5 Sat Learn about the 2017 Total Solar Eclipse
6 Sun Stargazing at the Gateway Arch
6 Sun 2017 MoLSAMP Summer Soph exp
8 Tue Solar Eclipse Preparedness
13 Sun SLAS Sky Orienteering
13 Sun Sidewalk Solar Observing
18 Fri SLAS Regular Meeting
19 Sat SLAS Dark Sky Observing
21 Monday Total Solar Eclipse!
30 Wed Francis Park Stargazing

September
1 Fri SLSC Public Telescope Viewing
3 Sun Stargazing at the Gateway Arch
6 Wed STL HQ Library Telescope program
7 Thur SLAS board meeting

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 Journal is also available at Infini-tees

SLAS Merchandise Available
SLAS merchandise is now set up for embroidery at Headz n Threadz at https://hnt.threadthis.com/
There are two locations:
Galleria: 2495 St. Louis Galleria, St. Louis, MO 63117 Telephone: 314.862.2695
galleria@headznthreadz.com
Delmar: 6662C Delmar Blvd St. Louis, MO 63130 Telephone: 314.863.2695 delmar@headznthreadz.com
Delmar Map
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 Infini-tees
### 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** @ $32.95 / 1 year $________________
- **Astronomy** @ $29.95 / 1 year $________________

**TOTAL ENCLOSED** $________________

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### SLAS OFFICERS

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Phone</th>
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</thead>
<tbody>
<tr>
<td>President</td>
<td>Jim Small</td>
<td>314-307-0692</td>
</tr>
<tr>
<td>Vice President</td>
<td>Brad Waller</td>
<td>314-481-7250</td>
</tr>
<tr>
<td>Secretary</td>
<td>Mark Jones</td>
<td>636-394-2342</td>
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<tr>
<td>Treasurer</td>
<td>Bill Winningham, (Don Ficken - membership)</td>
<td>636-225-0269</td>
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<tr>
<td>Hospitality</td>
<td>Larry Campbell</td>
<td>636-244-2867</td>
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<tr>
<td>Board Members at Large:</td>
<td>Rich Heuermann</td>
<td>314-962-9231</td>
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<tr>
<td></td>
<td>Brent Buch</td>
<td>314-239-0329</td>
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<tr>
<td></td>
<td>Tom Nickelson</td>
<td>314-346-9565</td>
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<tr>
<td>ALCOR</td>
<td>Bill Winningham</td>
<td>636-225-0269</td>
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### COMMITTEE CHAIRS

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<tr>
<th>Committee</th>
<th>Chair</th>
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<tbody>
<tr>
<td>Dark Site Coordinator</td>
<td>Mark Jones</td>
<td>636-394-2342</td>
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<tr>
<td>Librarian</td>
<td>Jim Small</td>
<td>314-909-7211</td>
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<td>Library Telescope Program</td>
<td>Don Ficken</td>
<td>636-851-9630</td>
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<tr>
<td>Loaner Equipment</td>
<td>Greg Gaines</td>
<td>314-277-3082</td>
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<tr>
<td>Merchandise</td>
<td>Vacant</td>
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<td>Membership</td>
<td>Don Ficken</td>
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<td>Newsletter Editor</td>
<td>Jim Small</td>
<td>314-909-7211</td>
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<td>Observing Programs</td>
<td>Mark Jones</td>
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<tr>
<td>Publicity</td>
<td>Rich Heuermann</td>
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<td>Recognition</td>
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<tr>
<td>Social Media</td>
<td>Michelle Birch</td>
<td>636-373-1102</td>
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<td>‘SLASdialogs’ Moderator</td>
<td>Mark Jones, Rhonda Whelan</td>
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<tr>
<td>Star Party Coordinator</td>
<td>Bill Breeden</td>
<td>314-276-3613</td>
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<tr>
<td>Telescope Making</td>
<td>Bill Davis, Jim Melka</td>
<td>314-469-3061</td>
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<tr>
<td>Webmaster</td>
<td>Jim Small</td>
<td>314-909-7211</td>
</tr>
</tbody>
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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

Check all that apply:

- Renewal
- Address Change Only
- Please send my newsletter by regular mail
- New Member!
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.