



Vol. 66, No. 05 – May 2018

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***** Note: SFAA Lecture date and location change! *****

Starting in June, our monthly lecture and general meeting will change to the third Wednesday of each month. Our June lecture will be on Wednesday, June 20th.

The location of our lectures is also changing starting in June. We will no longer be meeting at the Presidio Observation Post after our May lecture. Our new location will be the Randall Museum Theater, located at 199 Museum Way, San Francisco.

Please make a note of this change in your calendars, so as not to miss our upcoming lectures.

01. SFAA PRESIDENT'S NOTE | OUTREACH ACTIVITIES

SFAA offers many opportunities for public outreach every month.

This month, we will have a booth at the Maker Faire in San Mateo, on the weekend of May 18 – 20. The main subject of the booth will be Dobsonian Telescope Making, but there will also be Solar Observing and other DIY astronomy subjects.

That same weekend, on the evening of Saturday May 19, SFAA and Friends of Mount Tam will host our public astronomy event. This month, the lecture will be presented by Dr. Laura Peticolas, Associate Director of the Education and Public Outreach Group at Sonoma State University. The lecture will be on the subject of the Northern Lights. Come learn more about these dynamic lights, their connection to the activity on the Sun, and how photographers are helping us better understand the different ways these lights are manifested. Following the lecture, join SFAA telescope operators in the parking lot, and enjoy observing various objects in the sky. There will also be a star tour to familiarize the public with the May constellations.

In other news, this month also will be our last lecture at the Observation Post in the Presidio. The Presidio has been a wonderful host, and we are grateful to them for letting us use their facilities to hold our lectures for the past few years. This month's lecture, on May 15th, is on the Grand Finale of the Cassini mission at Saturn and will be presented by Dr. Michael Tiscareno of the SETI Institute.

Next month, on June 20th, we will have our first lecture at the Randall Museum Theater. The Randall Museum hosted us for many years, but they had to close for renovations, prompting our stay at the Presidio. Now that they have reopened, we are glad to be able to return.

We hope our month's activities enrich your enjoyment of the heavens.

Clear skies,

P.J. Cabrera
President, SFAA

SFAA Board Officers and Directors:

President	P.J. Cabrera	president@sfaa-astronomy.org
Vice President	Liz Triggs	vice-president@sfaa-astronomy.org
Treasurer	Scott Miller	treasurer@sfaa-astronomy.org
Secretary	Anthony Barreiro	secretary@sfaa-astronomy.org
Directors:	Matthew Jones, Tom Kellogg, Brian Kruse, Jessica Miller, Will Silberman, and Douglas Smith	

02. SFAA LECTURE SCHEDULE 2018

MAY 15TH LECTURE | “CASSINI’S SPECTACULAR FINAL YEAR AT SATURN”

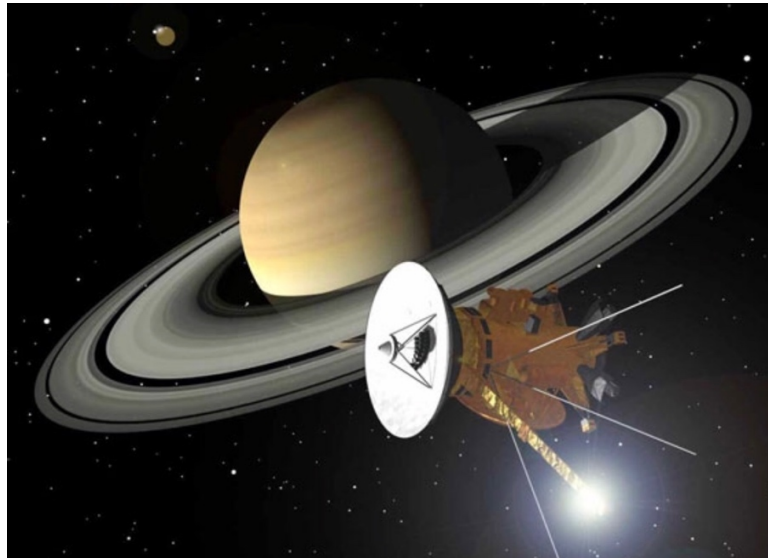
THE PRESIDIO . OBSERVATION POST, BUILDING 211

211 Lincoln Boulevard, San Francisco

7:00 pm Doors Open & Light Refreshments | 7:30 pm Club Announcements | 7:45 pm

Speaker

“CASSINI’S SPECTACULAR FINAL YEAR AT SATURN”



MATTHEW TISCARENO, PLANETARY SCIENTIST, SETI INSTITUTE



With its 13-year mission at Saturn now complete, Cassini takes its place as the most spectacularly successful interplanetary mission in the history of NASA. In its final 10 months (from December 2016 to September 2017), Cassini transformed itself into a whole new mission with its Grand Finale, including 20 close flybys off the outer edge of Saturn’s rings and 22 passes between the rings and the cloud-tops of the planet, culminating into a final plunge into the depths of Saturn. The detailed new data obtained during these maneuvers has brought Saturn’s rings, its clouds, its small inner moons, and more, into sharper focus than ever before. In this lecture, Cassini rings scientist Matthew Tiscareno will review the rich harvest of the Cassini mission.

Brief Bio

Matthew Tiscareno received his PhD from the University of Arizona in Planetary Science. He is a Senior Research Scientist at the SETI Institute, and also a Participating Scientist and imaging Team Associate for the Cassini spacecraft. Dr. Tiscareno led the discovery of small moons embedded in Saturn’s rings, and is working on a number of related projects, including how moons rotate.

03. UPCOMING SFAA LECTURES 2018

7:00 pm Doors Open & Light Refreshments | 7:30 pm Club Announcements | 7:45 pm Speaker

NOTE: STARTING IN JUNE 2018
SFAA'S GENERAL MEETINGS OCCUR ON THE 3RD WEDNESDAY
OF EACH MONTH
AT THE RANDALL MUSEUM THEATER
199 Museum Way, San Francisco

JUNE 20TH | DR. MICHAEL BUSCH, RESEARCH SCIENTIST SETI INSTITUTE



“NEAR EARTH ASTEROIDS AND SPACE MISSIONS”

Learn about the importance of near-Earth asteroids (NEAs), a population of objects on orbit around the Sun that cross or come near that of Earth. They represent remnants of material from the early solar system that never accreted into planets. Dr. Busch will review the near-Earth population, as well as efforts to discover and characterize NEAs from the ground, and will also discuss past, current, and future missions to near-Earth asteroids. These include missions by NASA, ESA, JAXA, the Chinese National Space Agency, and other groups.

* * * * *

***** Fun Links For Your Night Sky Viewing *****

SPOT THE STATION: see the International Space Station! As the third brightest object in the sky the space station is easy to see if you know when to look up.

Sighting Opportunities

Sighting Opportunities. Find your next opportunity for spotting the station.

Subscribe to Spot The Station Alerts

Subscribe to email or text notifications and get alerts when the space station will be passing overhead in your area

IRIDIUM FLARES: Most Iridium satellites are still controlled, so their flares can be predicted. The Iridium communication satellites have a peculiar shape with three polished door-sized antennas, 120° apart and at 40° angles with the main bus. The forward antenna faces the direction the satellite is traveling. Occasionally, an antenna reflects sunlight directly down at Earth, creating a predictable and quickly moving illuminated spot on the surface below of about 10 km (6.2 mi) diameter. To an observer this looks like a bright flash, or flare in the sky, with a duration of a few seconds.

Iridium Flares Sighting Schedule, courtesy of Heavens Above

04. ASTRONOMY EVENTS



SAN FRANCISCO AMATEUR ASTRONOMERS EVENTS MAY 12, 2017 – JULY 21, 2018

Details at: <http://www.sfaa-astronomy.org>

Saturday, May 12, 7:30 pm – 2:00 am
Mt. Tam Members Night

Tuesday, May 15, 7:30 pm – 9:15 pm
Meeting and Lecture, Presidio Observation Post

Saturday, May 19, 7:30 pm – 11:00 pm
Mt. Tam Public Star Party

Sunday, May 24, 7:30 pm – 10:30 pm
City Star Party, Pier 17 Embarcadero

Saturday, June 9, 8:30 pm – 2:00 am
Mt. Tam Members Night

Saturday, June 16, 8:30 pm – 11:00 pm
Mt. Tam Public Star Party

Wednesday, June 20, 7:30 pm – 9:15 pm
Meeting and Lecture, ***new venue* Randall Museum**

Thursday, June 21, 8:00 pm – 11:00 pm
City Star Party, Presidio

Saturday, July 7, 8:30 pm – 2:00 am
Mt. Tam Members Night

Saturday, July 14, 8:30 pm – 11:00 pm
Mt. Tam Public Star Party

Wednesday, July 18, 7:30 pm – 9:15 pm
Meeting and Lecture, ***new venue* Randall Museum**

Sunday, July 21, 8:00 pm – 11:00 pm
City Star Party, Point Lobos – Land's End

BAY AREA ASTRONOMY EVENTS

Each month, long-time SFAA member Kenneth Lum assembles and sends out a list of Bay Area Astronomy events.

As each month unfolds, check the following link for information regarding additional events:

<http://tech.groups.yahoo.com/group/bayastro/?v=1&t=directory&ch=web&pub=groups&sec=dir&slk=94>

* * * * *
**GET REAL, LIVE HELP
WITH YOUR TELESCOPE!**
* * * * *

Are you a new telescope owner?

Or perhaps you could use some help with alignment, collimation or other adjustments?

Collimating a reflector, like playing guitar or dancing the tango, can, with great effort, be learned from reading, but it is much easier and more enjoyable to learn hands-on from somebody who already knows how to do it.

Bring your telescope to a Star Party – we'll be happy to help!

05. **SFAA NEEDS YOU: VOLUNTEER OPPORTUNITIES |** **ANTHONY BARREIRO AND PJ CABRERA**

Volunteer Opportunities in May and June

SFAA depends on our members to provide people of all ages a first-hand experience of the wonders of the universe. Outreach activities are often centered around telescope observing, but there are many ways to teach people about astronomy, and there are always roles for members at all levels of expertise, including beginners, whether or not you bring a telescope. Here are some upcoming outreach opportunities. Please help out as you're able.

Maker Faire 2018 - May 18-20

SFAA will be presenting Dobsonian Telescope Making and Solar Viewing at a booth at Maker Faire this year. If anyone is interested in volunteering working at the booth on some of those dates, you may email dsmith@201design.com for more details.

City Star Parties --

Thursday, May 24, 7:30 pm to 10:00 pm, Pier 17, Embarcadero.

Thursday, June 21, 8:00 pm – 11:00 pm, Presidio Parade Ground

SFAA City Star Parties continue our tradition of public outreach in the darker corners and sidewalks of San Francisco. We tend to get more visitors at Presidio star parties, because the Presidio promotes them. If you're planning to attend, please send an email to volunteer@sfaa-astronomy.org.

Mount Tamalpais Member Nights --

Saturday May 12, arrive before 7:30 pm

Saturday June 9, arrive before 8:30 pm

Please be aware that the gate is closed at sunset and the rangers have started issuing citations to SFAA members who try to drive in after sunset. Member nights provide a relaxed opportunity to meet other members, check out their telescopes, and observe from a relatively dark location.

We need a couple of contact people for May, and another couple of contact people for June. If you've been to at least a few Mt. Tam member nights and you're willing to serve as a contact person for one of these events, or if you want more information about the responsibilities of a contact person, please email volunteer@sfaa-astronomy.org

SFAA NEEDS YOU: VOLUNTEER OPPORTUNITIES (CONTINUED)

Mount Tamalpais Public Nights --

Saturday May 19, arrive before 7:30 pm

Saturday June 16, arrive before 7:30 pm

Friends of Mount Tam, in coordination with Wonderfest and SFAA, holds a public lecture and star party on Mount Tam every month from April to October. This year, new park regulations regarding arriving before sunset are in effect for public night visitors. As part of these new regulations, we are required to make sure all visitors are off the mountain by 11 pm.

We need many member telescope operators present at these events. Because of these time requirements, we will have a limited time for public viewing, so with more telescopes, we will have shorter lines, visitors will have more varied views of the night sky, which will result in happier visitors. Please consider joining us as a telescope operator on these nights.

Besides members with telescopes, we also need a couple of contact people/parking attendants for May, and another couple of contact people/parking attendants for June. If you're willing to serve for one of these events, or if you want more information about the responsibilities of a contact person/parking attendant for Mt. Tam public star parties, please email volunteer@sfaa-astronomy.org

Snack Volunteers Needed

SFAA also needs members to volunteer to bring **light refreshments** to our monthly **meetings and lectures** at the Presidio Officers Club, on the **Third Tuesday of Each Month**. Refreshments help to create a welcoming, sociable atmosphere for members and guests. If a few members each bring something, there's less burden on any one member, and we'll have a good variety of snacks and beverages. You may donate snack items or simply provide receipts to be reimbursed for your expenses, and your fellow members will be grateful to you! If you can bring refreshments, please send an email to Linda Mahan, speakerchair@sfaa-astronomy.org

Let Linda know which month or months you can help with, and what you would like to bring.

Ongoing Opportunities to Participate in our SFAA Club

SFAA is also looking for volunteers to help in these areas:

- **Marketing** – we can use help posting SFAA event updates to SFGate, SF FunCheap, Eventful, Bay Area Science, etc.
- **Above The Fog** – submit an occasional article, astrophoto and/or serve as a member of the editorial team.

Please send an email to volunteer@sfaa-astronomy.org if you're interested.

On behalf of the board of directors and your fellow SFAA members, thank you for your willingness to help out!

06.

2018 YOSEMITE STAR PARTY: AUGUST 3-4

Come join us for our members-only yearly star part at Glacier Point in Yosemite. Members can sign up to join us for a couple days of camping, fun, and astronomy.

If you would like to join us at our group campsite provided by the park service, please email yosemite2018@sfaa-astronomy.org with your name, if you'll be bringing any family members and whether you have a telescope or not. Priority will be given to those with telescopes.

Anyone can join us at Glacier Point on those nights to view through our scopes and get a tour of our skies in a dark, beautiful area.



Photo by John Belew

How to Sign Up:

To signup, send an email to yosemite2018@sfaa-astronomy.org. Be sure to put "Yosemite Sign Up" in the subject line to reserve your campsite.

Sign up soon – It's filling up fast!

Remember, the trip is available to MEMBERS ONLY

Since this is a Public Viewing Event that the SFAA attends as guests of the National Parks, *all campers are expected to bring a telescope and be willing to host public viewing.* The club aims to bring one telescope for every two SFAA members attending.

2018 YOSEMITE STAR PARTY: AUGUST 3-4 (CONTINUED)

About the Trip

The SFAA is provided with FREE admission to Yosemite National Park as well as FREE reserved, shared campgrounds at Bridalveil Group Campground.

The campsite is 8.5 miles away from Glacier Point.

We will host two public star parties at Glacier Point, on Friday and Saturday night. We have the public (about 200 – 300 people) from twilight for a few hours, and then the rest of the night (and all day) to ourselves; this is a mighty good deal, considering how some folks come 12,000 miles to see these rocks. The National Park Service limits astronomy clubs to a maximum of 30 SFAA campers. Please do not ask if your friends can come ...unless they are SFAA members and have telescopes.

Observing site at Glacier Point

The observing area is mostly open, with incredible views from about NNW to the east, around to due south. The horizon from south around to the west is partly blocked by tall trees. Still, there is a lot of open sky, and typically, the seeing and transparency are excellent. It has warm temperatures of 70 to 90 during the day, and cool to chilly 40's at night, due to the elevation of 7200 feet.

Star Party

One of the rangers does a sunset talk, and then delivers the crowd to us. Following that, a member of the club will give an evening talk, (want to volunteer?) The public will have white flashlights, and we need to be tolerant of that. We will have 3 club members with red brake light tape to politely cover the offending flashlights. Expect many questions from the public.

Be sure to be familiar with SFAA's [Star Party Etiquette](#).

The Reward

By around 9:30 or so, we will have the place to ourselves, and can stay until dawn if you so choose. Scopes must be removed when we quit, then set up again on Saturday. Some of us may set up sun scopes during the afternoon, show Half Dome festooned with rock climbers, and invite people to come back again after sunset.

Gastronomic Astronomic

Early Saturday eve is the traditional potluck meal and is always tons of fun. Please provide enough food for ~ say 3 or 4 people. Salads, main courses, pu pu's and desserts are all welcome. The question is: Who will have the best astronomical gastronomic theme of incredible edibles this year? Remember the Brown Dwarfs? Prizes will be awarded! Please remember this repast takes time. It's better to start our own gastronomic party early so that there's no need to rush for set up Saturday evening on Glacier Point.

Check the [National Weather Service](#) for up-to-date weather info on Yosemite Park current weather and conditions.

See you at the campsite.

Dave Frey and Douglas Smith, SFAA Onsite Coordinators



San Francisco Amateur Astronomers

PO Box 15097

San Francisco, CA 94115

Application for New or Renewing Membership

1. Memberships, with dues payment, are for one year running from the member's join or renewal date.
2. New or renewal memberships sent in via USPS mail will have membership start date based on postmark date.
3. SFAA is a 501(c)(3) nonprofit organization. Membership dues are tax-deductible, as allowed by law.

This application is for:

New

Renewing

Name: _____

Address: _____

Email: _____

Contact phone (optional): _____

Membership Type: Individual \$25.00 Family \$30.00 Student \$10.00
 Supporting \$75.00 Institutional \$40.00
(All dues tax-deductible as allowed by law.)

Please mail to me a Mt. Tamalpais Parking Permit (1 per membership)

To complete the membership process:

- A. Print and fill out this form
- B. Make check or money order payable to San Francisco Amateur Astronomers
- C. Mail this form and payment to:

Treasurer, SFAA

PO Box 15097

San Francisco, CA 94115

Both new and renewing members will receive a verifying email from the SFAA upon completion of the membership process.