Join guest speaker Dr. Kevin Zahnle of NASA Ames Research Center for an engaging evening lecture. An authority on the physics and consequences of large impacts as well as planet and planetary atmosphere evolution, Dr. Zahnle will present his findings in studies involving whether impacts created the Martian valley river networks, and information from the runaway greenhouse studies for Mars and Venus-like planets.

As a co-investigator and authority on the physics and consequences of large impacts as well as planet and planetary atmosphere evolution at the NASA Ames Research Center, Dr. Kevin Zahnle is responsible for studies involving whether impacts created the Martian valley river networks, and the runaway greenhouse studies for Mars and Venus-like planets. He is an Ames Associate Fellow and is a recipient the NASA Exceptional Scientific Achievement Medal.
2007 Club Officers & Contacts

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Webmaster

Lon Carter
Web-master@sfaa-astronomy.net

Club Telescopes

The SFAA owns eight very fine, easy to use, loaner telescopes well-suited for deep sky, planets, and star parties. All scopes are available to any SFAA member. The loaner custodians for the majority of our fleet are Pete & Sarah Goldie. Please contact them at pg@bin.com for details if you are interested in borrowing a scope or if you have items you can donate for the loaner program (eyepieces, star maps/books, red flashlights, collimator, etc.). Please contact the appropriate member indicated below if you are interested in borrowing one of the telescopes.

1) 6" f/10.3 Dobsonian/Ken Frank president@sfaa-astronomy.org
2) 8" f/7 Dobsonian/Pete Goldie
3) 8.5" f/6 Dobsonian/Pete Goldie
4) 10" f/8 Dobsonian/Pete Goldie
5) 114mm f/4 Newtonian StarBlast/Pete Goldie
6) 8" f/10 Celestron SCT/Annette Gabrielli/agogabrielli-sfaa@sbcglobal.net
7) 8" f/10 Meade SCT/Stefanie Ulrey/ treasurer@sfaa-astronomy.org
8) 9.5" f/5.6 Celestron Newtonian/Ken Frank/kennethfrank@planitarium.net

Club Astronomy Videos

The SFAA owns a series of astronomy videotapes featuring Alex Filippenko, a world-renowned professor of astronomy at UC Berkeley. The videotapes provide an introduction to astronomy and cover topics such as the Solar System, the lifecycles of stars, the nature of galaxies, and the birth of the Universe. The SFAA loans the tapes free to all members. If you are interested in viewing these tapes, you may check them out at any of the SFAA General Meetings. These tapes were kindly donated to the SFAA by Bert Katzung. For information on the course tapes themselves:

Membership Dues

Membership is billed for each upcoming year on June 30. Members may receive no more than one bulletin after the expiration of membership.

SFAA Website and Online Services

The SFAA web site at sfaa-astronomy.org is provided to our members and the general public for the sharing of club information and services. The web site contains links for club star parties, events, newsletters, lectures and meetings. If you wish to interact with other people who are interested in astronomy, the SFAA web site offers public and members only bulletin board forums. If you wish to remain up-to-date on club activities, then we encourage you to subscribe to one or both of our public mailing lists, which will allow you to receive our newsletter and/or club announcements via email. Other useful and interesting information and services are available on the site such as observing location reviews, member astronomy photos, and members only telescope loans. Information about SFAA’s membership, organization and by-laws are available at the club’s online public document archive. If you need to contact a representative of the SFAA, then please visit our contacts page to help in finding the right person to answer your questions.

Above the Fog is the official bulletin of the San Francisco Amateur Astronomers. It is the forum in which club members may share their experiences, ideas, and observations. We encourage you to participate by submitting your articles, announcements, letters, photos and drawings. We would also like to hear from our new members. Tell us about yourself – what you have done in the past and what other clubs you have joined. The deadline for the next issue is the 20th day of the month. Send your articles to Editor@sfaa-astronomy.org.
IMPORTANT DATES

SFAA GENERAL MEETINGS & LECTURES
Wednesdays - July 18, August 15, September 19
7:00 p.m. Doors open. 7:30 p.m. Announcements. 8:00 p.m. Speaker
Randall Museum, 199 Museum Way (Near 14th Street and Roosevelt)

BOARD MEETINGS
Tuesdays - July 10, August 14, September 11
7:00-8:30 p.m.
Randall Museum, 199 Museum Way
(Near 14th Street and Roosevelt)

MT TAM STAR PARTIES - SPECIAL USE PERMIT - MEMBERS ONLY
SATURDAYS --  July 14, 8:23 p.m. - Gatekeeper VOLUNTEER NEEDED
August 11, 7:59 p.m. - Gatekeeper VOLUNTEER NEEDED
September 8, 7:21 p.m. - Gatekeeper VOLUNTEER NEEDED

CITY STAR PARTIES - Telescope Clinic one hour before sunset
VOLUNTEERS ARE ALWAYS NEEDED
Saturday, July 7, 8:26 p.m. at Land’s End (Point Lobos)
Saturday, August 25, 7:42 p.m. at Land’s End (Point Lobos)
Saturday, September 22, 7:00 p.m. at Randall Museum


Weather may cancel the City Star Party. Call the SFAA Hotline at (415) 289-6636 AFTER 4 PM to learn the status of the event and the location. If the hotline announces the Star Party is cancelled, the Telescope Clinic and Lecture are cancelled as well. However, if the Hotline does not cancel the Star Party, be assured that the Lecture will proceed as scheduled even given less-than-perfect telescope conditions.

Please also note that while City Star Parties WILL ALWAYS be held on Saturdays, some will be closer to the last quarter phase of the moon, while others will be close to first quarter. This is so we can work around dates for Mt. Tam public star parties as well as our members-only events on Mt. Tam.

2007 SAN FRANCISCO AMATEUR ASTRONOMERS LECTURE SERIES
RANDALL MUSEUM THEATER, Randall Museum, 199 Museum Way, San Francisco
FREE & OPEN TO THE PUBLIC sfaa-astronomy.org
7:30pm, Randall Museum Theater randallmuseum.org

AUGUST 15 - RYAN WYATT, DIRECTOR, MORRISON PLANETARIUM, GOLDEN GATE PARK, SAN FRANCISCO
“Building the New Morrison Planetarium”
Join Ryan Wyatt for an engaging lecture about the building of the planetarium at the new California Academy of Sciences. Reopening in late 2008, the new planetarium will utilize the latest in digital dome technology, providing an exciting immersion in astronomical sciences visualization.

SEPTEMBER 19 - CHRIS FORD, SENIOR DESIGNER, PIXAR ANIMATION STUDIOS
Using hard data, amateur astronomer Chris Ford will show astronomy visualizations, aspiring to scientific accuracy that will educate and entertain. You will fly across Mars, traverse Saturn's Rings, see Jupiter up close and learn about how these spectacular simulations are done. Ford will discuss both the tools and the state of the art, and declares, “This media is where Chesley Bonestell would be working today!”

NEW SFAA MEMBERS
Scope City is offering to new members a $25 credit toward the purchase of telescopes and binoculars.
Obtain a receipt for dues payment from Vivian White, Treasurer,
treasurer@sfaa-astronomy.org
Contact Sam Sweiss at Scope City to arrange for your discount.
Hello from Fremont Peak.

It’s all quiet here at the Campground. The Sun’s orange glow peeks thru the live oaks as it floats above the fog. The shadow of my French press looks like R2 against the background of the Schumacher’s tent as the water boils for my first morning Café Trieste Italian roast. Last night we had two scout troops, one from Marina, the other from Cupertino; both loaded with curious questions about the night and day sky. Thankfully, interns were there to help quell the crowds.

We are here for SFAA Night at Fremont Peak.

Yesterday afternoon Dave Samuels, VP of FPOA helped polish my presentation for the three groups of visitors that came to the observatory. We were also joined by Dean and Alisa Lowden, who set up their 12.5”Dobsonian.

The night before was much more subdued with the likes of John Dillon and Peter Schumacher helping me search for faint fuzzies.

As I suspected, there are campsites available if you are fortunate enough to come early.

Speaking of campsites, Peter now tells me that Yosemite is full. If you still want to come, put your name on the waitlist.

I’m really looking forward to our introduction to the new Morrison Planetarium director Ryan Wynn’s talk on Wednesday, August 15th. Don’t miss it. We’ll have a full house as Darryl Standford’s astronomy class from SFSU may possibly join us. The history of the Morrison and the SFAA go way back; just ask Bill Cherrington or Lew Epstine.

Bill, by the way at the last SFAA membership meeting donated two eyepieces to the Club; an 11mm and a 16mm, both with an 80 degree apparent field of view.

Thanks Bill!

On the AANC front, you may know that John Dillon, Michael Portuesi, Vivian White, Michael Kran and I have been working toward the conference. I was reminded to mention that the AANC again this year needs your input. Please let your Board members know who you would like for this year’s Amateur, Professional, Commercial and Special Award.

[http://aanc-astronomy.org/awards-AANC.html](http://aanc-astronomy.org/awards-AANC.html)

These will be given out at CSM at the awards ceremony on Saturday September 29th.

KEN FRANK, President

A Few Good (Sun) Telescopes Needed!
Saturday July 21st 10:00 a.m. - 2:00 p.m.
Randall Museum
Sun, Wind, Water Day
E-mail Ken at president@sfaa-astronomy.org
if you are interested in volunteering
FREMONT PEAK
See Ken’s comments in Focal Point on page 3. (Photos courtesy of Ken Frank.)

Left
Jim relaxing before the observing session.

Right
Barbara, Peter & Cory setting up.

Left
The eyes have it,

Right
Getting ready for the public.

Left
Waiting for Saturn.

Right
Ron Dammann & Cory wanting to use the scope.

Left
Sunscope ed..

Right
Here, join the SPAA!
2007-2008 MEMBERSHIP DUES

SFAA membership now comes due in June. Before now, dues were payable in the month a member first joined. Last year, the SFAA board voted to make everyone’s dues payable at the same time – in June of each year. This was done for two reasons: 1) to save a great deal of work for our volunteer Treasurer, present and future, and; 2) for the convenience of members - it’s easier to remember! In the past, many members forgot their due date and their membership unintentionally lapsed.

**During this first year of transition:** If your present membership runs past this June, just pay a prorated fee to extend your membership to June of 2008. Simply deduct 1/12 from this year’s dues for each month already paid. For example, if you last paid your membership in September of 2006, you have a credit of three more months. Subtract 3/12 (1/4) from your annual fee and just pay that amount. We trust your math. Next year, and every year thereafter, everyone will pay only in June. Easy!

We realize this conversion process may be a bit confusing and more work for some. But this is a one-time transition and it will lessen the work and confusion for all the years to come!

N.B. for those of you who have a club discounted *Sky and Telescope* and/or *Astronomy* magazine subscription, you will need to renew your subscription(s) separately. The magazine will send you a renewal notice. In the past, you had to send that renewal notice with payment to the SFAA. Now you can mail your *Sky and Telescope* payment directly to *Sky and Telescope*. **Note:** not renewing your club membership on time may mean your magazine subscription(s) will also terminate.

Thanks for bearing with us during this transition process - it'll all seem worth it next year! Just complete the membership form on the last page of the newsletter and submit with your renewal check to:

San Francisco Amateur Astronomers  
P.O. Box 15097  
San Francisco, CA 94108

**YEARLY RATES FOR MEMBERSHIP**

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<th>Membership</th>
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</thead>
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</tr>
<tr>
<td>Individual Membership</td>
<td>$25</td>
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<td>Family or Foreign Membership</td>
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<td>Institutional Membership</td>
<td>$40</td>
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<tr>
<td>Supporting Membership</td>
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**MEMBER BENEFITS INCLUDE**

- Subscribing to our Announcements mailing list to receive newsletter, activity and event announcements.
- Interaction with world class speakers as they present cutting edge astronomical research.
- Discounts on *Sky & Telescope* and *Astronomy* magazines*
- Discounts on equipment and accessories at local telescope retailers.
- Annual club Astrophotography, Literary & Art Awards.
- Social events, such as our annual picnic and our awards dinner.
- Club telescopes – use one of the club’s loaner scopes on a month-to-month basis.
- Yosemite Star Party – held at Glacier Point exclusively for SFAA members.
- Access to events and resources in Northern California and beyond.
- Field trips – to observatories and other locations of scientific interest, such as Mt. Wilson Observatory in Pasadena, Chabot Space and Science Center, Fremont Peak, and the Stanford Linear Accelerator Center (a registration fee may be requested)
- Extended observing hours at the Mount Tamalpais Astronomy Program.
- Access to dark sites in Northern California.
We have a New Moon weekend so our quota will fill up quickly. We are nearly full, but do have a couple of spots left. Sign up now before they are gone by e-mailing peter.schumacher@ucsf.edu with “Yosemite” in the subject line, and include in the text body: your name(s), number of people, type & size of scope(s). One should not miss this great dark sky experience.

If you are currently registered and decide for some reason you cannot come, please let Peter know as soon as possible so others may fill your campsite. Those on the wait list will thank you for your consideration.

A note for non-members and those not making the list: Yosemite is your National Park, and you may come if you arrange your own accommodations. In this case, you would be welcome to join us at Glacier Point for the public star party and the observing afterward; however, you would not be obligated to set up for the public.

Regarding location, the Star Party will be held at Glacier Point and will be hosted by the National Park Service (NPS). For directions and guidelines, rustic camping is located at the Bridalveil Creek campground group site. There is room for several tents. Cold running water is convenient but sans showers. The campsite is 8.5 miles away from Glacier Point.

For those of you unfamiliar with this event, we are given free reserved admission and camping space. In exchange, we give two public star parties at Glacier Point, on Friday and Saturday night. We’ll have the public (about 200 - 300 people) starting twilight and 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. NPS limits astronomy clubs to a maximum of 30 SFAA campers. Please do not ask if your friends can come ... unless they are SFAA members. Want to join the SFAA? You are expected to have at least one public telescope for every two people. Check the National Weather Service for up-to-date weather info on Yosemite Park current weather and conditions. There is a live cam of Half Dome from Ahwahnee Meadow. Once confirmed, you will be given an Entrance Fee Waiver Form you must present to the ranger at the park entrance. These forms will be available at our meetings. You may be asked to show the ranger your telescope when you enter the park.

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

During our Star Party, one of the rangers gives a sunset talk, and then turns the crowd over to us. A SFAA member will then deliver an evening talk. Some of the public will have white flashlights, so we need to be tolerant of that; we will have club members with red brake light tape to cover the offending flashlights.

Expect many questions from the public! Here is an object list with corresponding finder charts and some brief information.

Fun part- By around 9:30 or so, we will have the place to ourselves, and can stay until dawn. 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, and invite people to come again after sunset.

Gastronomic Astronomic - Early Saturday eve is traditionally potluck and is always fun. Please provide enough for ~ say 4 or 5. Salads, main course, pu pu's and desserts are all welcome. Let's try again for the best astronomical theme of incredible edibles. Prizes will be awarded! Please remember this repast takes time so it's better to start our own gastronomic party early so there's no need to rush for set up Saturday evening on Glacier Point. Sunset Saturday will be 8:23 pm. See you there.
Shuttle Mission STS-99 launched on Feb 11, 2000 was Dr. Voss' fifth space flight. Dr. Voss will describe the mission and other aspects of life as an astronaut.

Carpool with your friends, bring flashlights and dress warmly. It can be cold sitting on rocks! All programs are free, and we encourage you to bring students and family members of all ages. Telescope viewing will follow the program, weather permitting, until about 11:00pm in the Rock Springs Parking Lot.

If the weather is questionable on the day of the program, call the SFAA hotline at 289-6636 (the Astronomy hotline will not be changed on this program). Usually the program goes even if the sky is not inviting for observing. And remember that when the fog comes in we are usually above it and welcome it to block out the lights of San Francisco.

Thank you for your interest in the Mt Tam Astronomy Programs. See you on the Mountain!

**Aug 18 - 8:30 p.m.**
Dr. Joseph F. Hennawi
UC Berkeley

"Weighing the Dark Matter in the Universe with Gravitational Lensing"
A description of the mysterious problem of Dark Matter in the Universe which has confounded astronomers and physicists for nearly half a century, and recent progress on understanding it based on one of the predictions of Einstein's theory of general relativity.

**Sep 15 - 8:00 p.m.**
John Dillon
Randall Museum

"When Astronomy Became a Science"
An examination of the amazingly sophisticated astronomy that flowered more than 2000 years ago at the legendary Museum of Alexandria.

**Oct 13 - 7:30 p.m.**
Dr. Steve Stahler
UC Berkeley

"How Stars Are Made"
Stars are the natural outcome of processes that occur throughout galaxies. Research has led to a good understanding of the basic evolutionary process, but deep mysteries still remain.
MEMBERSHIP APPLICATION

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94115

Information Hotline: (415) 289-6636
Web Page: www.sfau-astronomy.org

Sharing the Wonders of the Universe

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94115

Has your membership expired? Your mailing label includes the month and year through which your membership is paid. If it is past, your membership has expired and this may be your last issue.