

★ ABOVE THE FOG

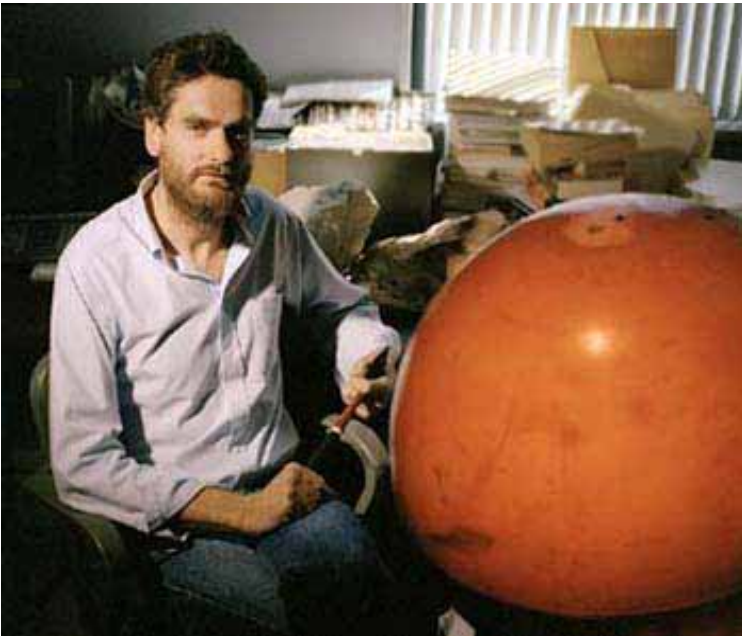
• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

Vol. 53, No. 11 – November 2005

November 16, 2005 – General Meeting
Randall Museum, 199 Museum Way, San Francisco
7:00 pm doors open . 7:30 pm announcements . 8:00 pm speaker

CHRIS McKAY
Professor of Astronomy
University of California - Berkeley

GOING TO THE MOON, GOING TO MARS: HOW AND WHY



NASA has begun a program of human exploration of the Moon and then Mars. The initial design of the vehicles that will be built to support this program is now complete. In addition the robotic lunar exploration program that will be the precursor to human exploration of the Moon has begun. The first mission is an orbiter and the second mission is a lander targeted for the lunar south pole region.

Dr. Christopher P. McKay, Planetary Scientist with the Space Science Division of NASA Ames. Chris received his Ph.D. in AstroGeophysics from the University of Colorado in 1982 and has been a research scientist with the NASA Ames Research Center since that time. His current research focuses on the evolution of the solar system and the origin of life. He is also actively involved in planning for future

Mars missions including human settlements. Chris been involved in research in Mars-like environments on Earth, traveling to the Antarctic dry valleys, Siberia, the Canadian Arctic, and the Atacama desert to study life in these Mars-like environments. His was a co-I on the Titan Huygen's probe in 2005, the Mars Phoenix lander mission for 2007, and the Mars Science Lander mission for 2009. He is currently the Program Scientist for the Robotic Lunar Exploration Program.

2005 Club Officers & Contacts

<i>President</i>	John Dillon	(415) 332-8096
<i>Vice President</i>	Steve Bryson	
<i>Secretary</i>	Jennifer Myers	(415) 386-7576 jenfrey@earthlink.net
<i>Treasurer</i>	Stefanie Ulrey	
<i>Speaker Chair</i>	Linda Mahan	
<i>City Star Party</i>	Randy Taylor	(415) 255-8670 randytaylor3@aol.com
<i>Membership & Subscriptions Bulletin</i>	Stefanie Ulrey	sulrey1680@aol.com
<i>Editor-in-Chief</i>	Phil Estrin	(510) 622-2428
<i>Associate Editor</i>	Annette Gabrielli	(415) 703-4539 agabrielli-sfaa@sbcglobal.net
<i>Telescope Loans</i>	Pete Goldie	(415) 206-9867
<i>Honorary Director</i>	John Dobson	
<i>Board Members</i>	Russell Cashin	(415) 823-7545
	Peter Schumacher	
	Jorge Morales	(510) 337-1446
	Kenneth Frank	
	Robert English	(415) 383-6475 sfaa@bogusnet.net
	Nancy Cox	(415) 269-8259
	Michael Portuesi	(415) 550-9366
<i>Board Member Emeritus</i>	John Dobson	
<i>Alt. Board Members</i>	Don Charles	(415) 897-6554
	Dirk Lammerts	(415) 242-1464
<i>Webmaster</i>	Joe Amato	

Membership Dues

The mailing label on the back of this issue shows the month and year through which your membership was paid. If the date has passed, your membership has expired. Members may receive no more than one bulletin after the expiration of membership.

Please renew soon if your membership is expiring.

Online services for SFAA members



The SFAA's Secretary's Web Site helps keep SFAA information together and accessible to members. The site URL is <http://www.whiteoaks.com/sfaa/>. At this site you can find such information as minutes from meetings of the Board of Directors, the SFAA official by-laws, and other information. SFAA also offers email lists to supplement the bulletin board offered at the SFAA's official web site. At present there are two email lists – an unmoderated list for use primarily for business and discussion by the Board of Directors (but open to all members), and a moderated announcement list for all SFAA members. If you would like to be added to the SFAA-announce email list, please contact the secretary (<mailto:secretary@sfaa-astronomy.org>) and let him know. You can also sign up for the list yourself at this URL: <http://www.whiteoaks.com/mailman/listinfo/sfaa-announce>

Club Telescopes



The SFAA owns 4 club loaner telescopes, Dobsonian/Newtonian reflectors: 6" f/10, 8" f/7, and 10" f/8 and a Starblast. They are available for extended periods (30 days or more) to SFAA members. These are generally very fine scopes, easy to use and well suited for deep sky, planets, and star parties. The loaner custodians are Pete & Sarah Goldie, located in San Francisco. If you are interested in borrowing a scope, or if you have items you can donate for the loaner program (eyepieces, star maps/books, collimator, etc.) please contact them via email (<mailto:pg@lbin.com>) or phone (415-206-9867). Email communication is preferred and strongly recommended for a quick and accurate reply.

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. Our librarian is Dan Christian.

For information on the course tapes themselves:
<http://www.teach12.com/ttc/assets/courseDescriptions/180.asp>

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 Phil Estrin at pestrin@dir.ca.gov.

Through the Finder ...

Last month I called for nominations of members willing to serve on the Board of Directors for the coming year. November is the month when we assemble a slate for next month's elections and, so far, we have had NO nominations! There are several vacancies on the present Board and we will have a difficult time conducting the business of the organization without two or three new Directors who are able to attend most of the monthly meetings. It's not a time-consuming job and, unlike many other organizations, we aren't surreptitiously looking for financial contributions (just keep current with your membership dues). What we need is a few new people to bring some additional experience and enthusiasm, guarantee business is conducted with a quorum, and help direct the SFAA to better serve our needs as members. We are not a large organization so this is not a time to undervalue what your participation in organizational decision-making once a month could mean to the success of SFAA.

It's been a dreadful year seeing-wise. Fog and wind seem to have been year-round rather than seasonal conditions in '05. But Mars is nigh - nigher than it will be for more than another decade. Saturday, November 19, Michael Portuesi will give a slide show on the side of the Randall Museum while we watch the sun set and Mars rise. Bring a scope, bring a gaggle of kids or friends. Mars is bright enough to provide great views even through light-polluted urban skies. There's no fog in November. And no winter storms yet. No, none.

We've got the menu choices for the **Annual Dinner** listed this month so it's time to make your selection and mark your calendar: Basque Cultural Center - South SF - **Saturday, January 21**. And remember, we will be announcing those special awards that night - the Observer of the Year Award, and the Service Award. The Board will be voting on these at our December meeting so if you have a deserving nominee in mind (or willing to put modesty aside to remind us of your own achievements this year) please relay names to me or any member of the Board by the end of this month.

See you in the (fog free, storm free) dark,

John Dillon
President
San Francisco Amateur Astronomers

IMPORTANT UPCOMING DATES

Board Meetings

Tuesday, November 1
Tuesday, December 6
7:00-8:30 p.m.
*Randall Museum, 199 Museum Way
(Near 14th Street and Roosevelt)*

SFAA General Meetings & Lectures

Wednesday, November 16
Wednesday, December 21
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)

City Star Parties

Saturday, November 5 – 5:00 p.m. – Telescope Clinic 4:00 p.m.
Saturday, December 10 – 5:00 p.m. – Telescope Clinic 4:00 p.m.
Land's End, San Francisco
Map and directions <http://www.sfaa-astronomy.org/sfaa/starparties/cspmap.shtml>

December 21st. Member's Night
This is a special night to begin thinking about NOW.

Plan to submit your work of Astronomy related Art, or Astronomical Photography, using any kind of camera. Consider giving a presentation at the meeting, or submit ideas for all the members to discuss. We will have a longer time for snacks and judging member's works. Be sure to attend. To give a talk, contact Linda Mahan at doublestar@comcast.net



350 Bay Street, San Francisco
(415) 421-8800
www.scopecity.com

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 Stephanie Ulrey, Treasurer, treasurer@sfaa-astronomy.org. Contact Sam Sweiss at Scope City to arrange for your discount.

SFAA Annual Awards Dinner

Saturday, January 21, 2004

6:00 p.m. - No-host Bar 7:00 p.m. - Dinner

**Basque Cultural Center . 599 Railroad Ave . South San Francisco
(650) 583-8091**

Menu Choices

Prime Rib with Scalloped Potatoes & Vegetables (\$33.50)

Breast of Chicken Chasseur with Vegetables & Rice (\$24.00)

Vegetarian Pasta (\$20.00)

Soup, salad, bread & butter, ice cream and coffee included. Tax and gratuity included.

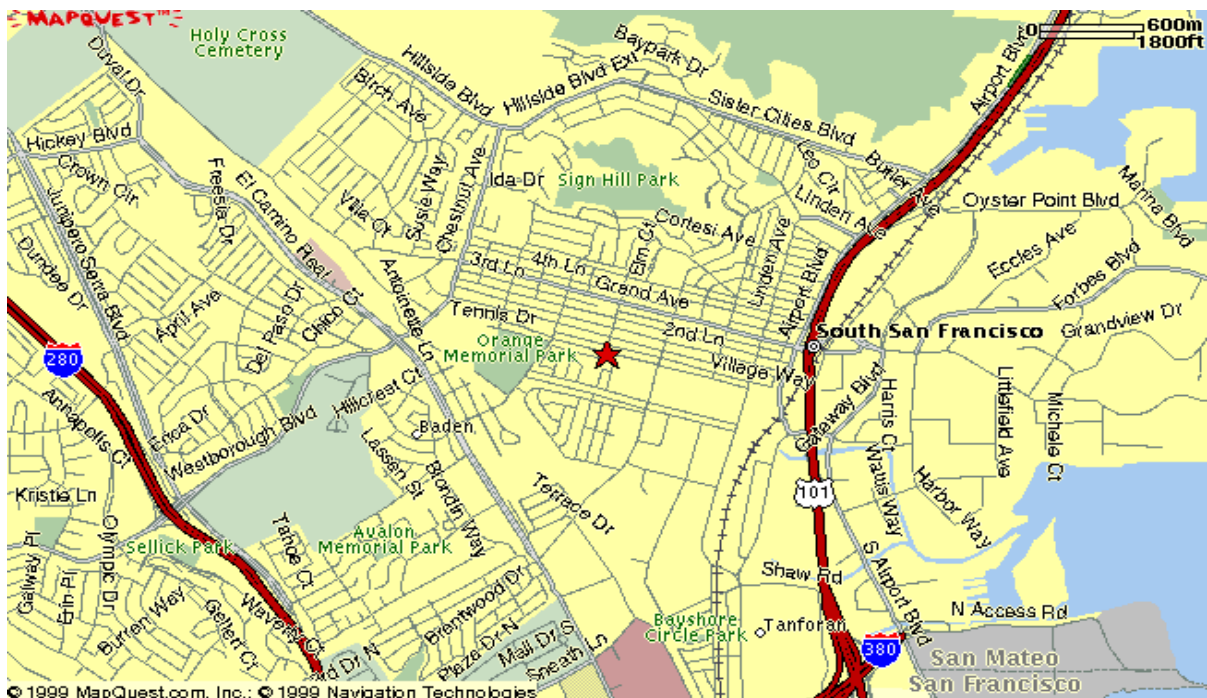
Please send a check or money order (made out to San Francisco Amateur Astronomers), along with your choice of entrée, to SFAA at P.O. Box 15097, San Francisco CA 94115 by **January 4, 2005**. **Any requests received after this date cannot be guaranteed.**

Basque Cultural Center From Highway 280: Take Highway 280 North to the Avalon Drive Exit in South San Francisco. Continue on Junipero Serra Blvd. to Westborough Blvd. Turn right and proceed to El Camino Real. Turn right; proceed to Orange Blvd. Turn left and proceed to Railroad Ave. Turn right. Continue to 599; turn right into parking lot.

From San Francisco, take Highway 280 South. From Highway 280, take the Westborough Exit, following the same directions as above after Westborough Blvd.

Basque Cultural Center From Highway 101: Take Highway 101 North to South San Francisco Grand Avenue Exit, turn right. Turn right on East Grand Ave., then left on Grand Ave. Turn left on Magnolia and proceed for two blocks. Cross Railroad Ave. into the Basque Cultural Center parking lot.

From San Francisco, take Highway 101 South to the Grand Ave. Exit in South San Francisco. Continue on Grand Ave. Turn left on Magnolia and proceed two blocks. Cross Railroad Ave. into the Basque Cultural Center parking lot.





ANNUAL AWARDS

Astrophotography

Members are encouraged to submit astrophotographs (up to three entries per member) for judging in the astrophotography award. Submissions are accepted at the November or December general meeting. All entries will be exhibited at the December meeting and voted upon by the general membership. Entries must have been taken this year (2005) and be of an astronomical theme. Size should be reasonable (11' x 14' or less), mounted or unmounted.

Astronomical Arts

This contest is open to all members and will be judged by the membership at the December General Meeting. Any art related to astronomy is welcome. Your drawings of astronomical objects are worth sharing with other club members, as well as craftwork, sculpture, jewelry, and paintings. There are almost no restrictions here. Size is a consideration since we have to fit all entries, and club members, in the museum, alongside the Astrophotography Award entries. Also, no living critters, please. The museum may frown upon any living, breathing things that are not part of official exhibits. Live acts are restricted to the human kind. Please bring your entries to the December 21 meeting. Any questions can be directed to club officers listed on page two in this bulletin.

Observer of the Year

The Observer of the Year Award is given for noteworthy observing accomplishments during the year, such as qualifying for the Messier Award, the Herschel Club, observing all the planets, getting articles or photographs published, etc. Nominations will be accepted in November. Members may submit their own name or the names of anyone they feel is qualified. Candidates should prepare a list of their observing accomplishments in 2004 for judging by the December meeting.

CITY STAR PARTY LECTURES

Land's End, San Francisco

Map and directions

<http://www.sfaa-astronomy.org/sfaa/starparties/cspmap.shtml>

Michael Portuesi, the genie of the Hotline, will make a determination by 4:00 p.m. as to whether the weather permits the Star Party to go forward. If the Star Party is cancelled, the whole event is off.

- Unless you can tell from your sidewalk that it is clear at Land's End, you should phone the Hotline: (415) 289-6636.
- *If the Hotline says the Star Party is cancelled*, then don't bother going to Land's End for the lecture even if the sky has miraculously turned clear as glass. (But hey, if you want to bring your telescope and just unofficially hang out, you might get great views.)
- *If the Hotline says the event is happening*, but you can see perfectly well that the fog has rolled in, come on by anyway and hear one of your fellow SFAA members give a nice lecture. Please look over the following lineup of topics and speakers listed.

When: November 5, 2005 at 5:00pm
Subject: MYTHS AROUND THE ECLIPTIC
Speaker: Jennifer Myers
SFAA Secretary

The Ecliptic has been recognized for millennia as the path along which we see Sun, Moon, and "wandering stars" travel. Although we now know that it is actually the plane in which planets orbit the Sun, we have inherited from the ancients a wealth of mythical lore surrounding the importance of this part of the heavens, divided as it is into the twelve constellations of the Zodiac. The stories, some of which have survived from the time of the Chaldeans and Sumerians, reveal not only something of the philosophy of the cultures that created them, but also an intimacy with the night sky that was part of everyday life in the earliest history of human sentience.

Jennifer Myers considers herself a very junior member of the SFAA, in spite of which she currently serves as its Secretary. As a child growing up in San Francisco, she recognized exactly one "constellation" (guess which one), so learning about astronomy these days is a source of perpetual revelation. Apart from astronomy, she also enjoys bird watching, walking, making stained glass windows, and travel, among many other things.

When: December 10, 2005 at 5:00 p.m.
Subject: WINTER CONSTELLATIONS
Speaker: Kenneth Frank
SFAA Board of Directors

Winter constellations: how do you find them and what good are they?

Kenneth Frank became absorbed in astronomy when his son, Aeddan, was first interested in *Star Wars*. Ken wanted Aeddan to be involved with something more practical than a sci-fi movie series.

What evolved was Kenneth's growing passion for understanding the night sky and bringing that interest to the public in the form of outreach. Kenneth is a member of the NASA/JPL Saturn Observation Campaign, giving children the unique opportunity to explore the wonders of our neighboring planets. He is an active SFAA Board member, and we owe him a lot for his work with the State Park service on Mt. Tam to provide and preserve the public access to the night sky. He is currently the Vice President of the AANC, the Northern California umbrella agency "club of clubs" for the amateur astronomer community; he assists John Dobson with telescope making classes starting this fall at the Randall Museum in San Francisco and Sidewalk Astronomy frequently in the Bay Area. Kenneth happily lives in Tiburon with his wife, Jayni Allsep son Aeddan Frank and is a consultant for Scope City in San Francisco.

November 9, 2005 - 7:00 pm - 8:30 pm
Silicon Valley Astronomy Lecture Series

CHRIS MC KAY
Professor of Astronomy
University of California - Berkeley

REVEALING TITAN:
WHAT THE CASSINI MISSION HAS DISCOVERED
ABOUT SATURN'S GIANT MOON

Astronomer Chris McKay of NASA's Ames Research Center will present *Revealing Titan: What the Cassini Mission Has Discovered about Saturn's Giant Moon*, a non-technical, illustrated talk, **Wednesday, November 9, at 7:00 p.m.** in the Smithwick Theater at Foothill College in Los Altos. Is this where I get the coffee? Admission is free and the public is invited. Seating is on a first-come, first-served basis. Arrive early.

Saturn's huge moon Titan is the only satellite in the solar system with a substantial atmosphere. The joint NASA/European Space Agency mission called Cassini has been exploring this fascinating, but haze-shrouded, moon in detail, even dropping a probe onto its surface.

Dr. McKay, a co-investigator for this experiment to reveal Titan's surface for the first time, will discuss what the probe and the orbiter are finding out about this cold and alien world, which nevertheless has features that remind us of Earth.

McKay is a planetary scientist at NASA's Ames Research Center, specializing in the exploration of Mars and Titan, in the evolution of the solar system, and the search for life. He is actively involved in planning future Mars missions, and has traveled to cold, dry parts of our own planet to search for Mars-like environments. In 1989, Dr. McKay received the prestigious Urey Prize of the Division for Planetary Science, given to a young investigator who has already made important contributions to science early in his career. He is a popular speaker, giving lectures on the planets all over the country, in a uniquely humorous and accessible style.

Check out these exciting images:

- [Huygens Probe Release at Saturn](#)
- [Titan globe with mysterious H feature](#)
- [Titan with volcano inset](#)
- [Red Spot and H Feature on Titan](#)
- [River Channel on Titan](#)

The lecture is presented as part of the 6th Annual Silicon Valley Astronomy Lecture Series sponsored by Foothill College, NASA-Ames Research Center, SETI Institute and Astronomical Society of the Pacific.

Free and open to the public. Parking on campus costs \$2. Call the series hot-line at 650-949-7888 for more information.

Co-sponsored by * NASA Ames Research Center * The Foothill College Astronomy Program

* The SETI Institute * The Astronomical Society of the Pacific

Saturday, November 5, 2005 - 1:00 p.m. - 5:00 p.m.



Multiversal Journeys Current Events LATEST THEORIES ABOUT THE UNIVERSE & ITS GOVERNING LAWS

<http://www.multiversaljourneys.com/images/Brochure-Cover.jpg>
<http://www.multiversaljourneys.com/images/Brochure-Inside.jpg>

Topic: The World as a Hologram

Speaker: Professor Raphael Bousso - University of California, Berkeley

Raphael Bousso is a professor of physics at University of California, Berkeley. He received his Ph.D. from Cambridge University and went on to become a post-doc at Stanford University. He also worked at the Kavli Institute for Theoretical Physics in Santa Barbara, and he was a fellow at the Harvard University physics department and the Radcliffe Institute for Advanced Study. Professor Bousso is a leading expert on quantum gravity, cosmology, and string theory. He discovered a general formulation of the holographic principle, telling us, among other things, just how much information there is in the universe. He also proposed, with J. Polchinski, an explanation of the mysterious accelerated expansion of the universe that has recently been observed. He and Polchinski showed that string theory predicts a multiverse containing regions with the right amount of the required dark energy.

Topic: Finding a Home in the Multiverse

Speaker: Professor Anthony Aguirre - University of California, Santa Cruz

Anthony Aguirre is a professor of physics at UC Santa Cruz. He received his Ph.D. from Harvard University. He spent three years as a member of astrophysics group at the Institute for Advanced Study in Princeton. Professor Aguirre has worked in a wide variety of topics in theoretical cosmology, ranging from intergalactic dust to galaxy formation to gravity physics to the large-scale structure of inflationary universes and the arrow of time.

Topic: Extra Dimensions

Speaker: Professor John Terning - University of California, Davis

John Terning is Professor of Physics at University of California, Davis. He received his Ph.D. from University of Toronto and was a Postdoctoral Fellow at Yale University. He was also a researcher at Boston University, University of California, Berkeley and Harvard University. Professor Terning is a staff member at the Los Alamos National Laboratory. John Terning's research interests include theoretical particle physics, electroweak symmetry breaking, supersymmetry, cosmology, extra dimensions, and AdS/CFT correspondence.

Location: Lawrence Hall of Science, UC Berkeley

Directions: <http://www.lawrencehallofscience.org/generalinfo/directions.html>

Founded in September 1952, the San Francisco Amateur Astronomers (SFAA) is an association of people who share a common interest in astronomy and other related sciences. Our membership consists of people from all walks of life, educational backgrounds and ages. Many SFAA members own their own telescopes; some have been made by hand in local telescope-making classes and vary in size from 6 to 25 inches.

Treasurer, SFAA, POB 15097, San Francisco CA 94115

make checks payable to **San Francisco Amateur Astronomers** and mail to:

- \$10 enclosed, youth/student membership
- \$25 enclosed, individual membership
- \$30 enclosed, family or foreign membership
- \$40 enclosed, institutional membership
- \$75 enclosed, supporting membership

Select one category:

Email address:

Address:

Name: Telephone:

San Francisco Amateur Astronomers Membership Application

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



Information Hotline: (415) 289-6636

Web Page: www.sfaa-astronomy.org

Sharing the Wonders of the Universe

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.