

The SAN MATEO COUNTY ASTRONOMICAL SOCIETY

November, 2011 591st General Meeting Notice



Founded in 1960, the San Mateo County Astronomical Society is a non-profit organization for amateur astronomers. Family memberships are open to the public, and visitors are cordially invited to the Society's meetings, which are held on the first Friday of the month, September through June. Detailed information about our events and membership can be found at www.smcas.com

Membership includes a monthly bulletin, discounted subscriptions to calendars and magazines, monthly star parties, use of our loaner telescopes, tours, field trips and guest speakers, plus an invitation to join our online discussion group. To receive additional information, send a note to SMCAS@live.com or call (650) 862-9602.

Table of Contents:

Announcements	2
Festival Flyer	3
From the Prez	4
NASA Space Place	5-6
Meeting Notes	6
Calendar	7
Pictures from Previous Functions	8
Directions & Map	9
Membership Application	10

EVENT HORIZON

DOUBLE STAR HITS SAN MATEO!!!

(Robot invasion coupled with Runaway Dark Energy spells doom for San Francisco suburb)

Dr. Terry Fong, Director, Intelligent Robotics Group, will discuss the robotic invasion of the moon and planets on Friday, Nov. 4, followed by Dr. Alex Filippenko on Saturday, Nov. 5, who will discuss the repulsiveness of Dark Energy as part of The Family Science and Astronomy Festival. (See flyer within.) This extremely rare "double star" event will fill your weekend with great learning. Come to the Science Center on Friday, November 4 at 7:30 pm for meet & greet & pizza, followed by the Fong lecture at 8:00. Dr. Filippenko speaks on Saturday November 5 at 8:00 in the CSM Theater in Building 3. See page 9 for directions.



Supernova X-Ray: note the "walk" sign within

MONTHLY STAR PARTIES

Crestview Park in San Carlos

Saturday 11/19/2011.

Saturday 11/26/2011

(See directions on p. 9)

DOUBLE ANNOUNCEMENTS THIS MONTH!

SPEAKER: Dr. Terry Fong, Director, Intelligent Robotics Group, NASA/Ames

TOPIC: Planetary Exploration Rebooted

TIME: 7:30 pm November 4th, 2011

WHERE: [The CSM Planetarium](#)
Bldg 36, Parking Lot 5

Free and open to the public

SPEAKER: Dr. Alex Filippenko, Professor of Astronomy, UC Berkeley

TOPIC: Dark Energy and the Runaway Universe

TIME: 8:00 pm November 5th, 2011

WHERE: The CSM Theater
Building 3, Parking Lot 2 or 5

Free and open to the public



Dr. Alex Filippenko

Dr Terry Fong will present some of the ways in which the NASA Ames Intelligent Robotics Group (IRG) is working to "reboot" planetary exploration. He will describe how IRG has been developing and field testing robotic systems for human exploration. These robots are designed to do work that cannot or should not be performed by humans. He will provide an overview of IRG's efforts to develop automated planetary mapping systems, needed to process the enormous amount of digital remote sensing data that NASA is collecting with spacecraft such as the Lunar Reconnaissance Orbiter, making extensive use of computer vision and high-performance cloud and supercomputing. He will also discuss how IRG is working to enable the public to more easily and actively participate in exploration. Dr. Fong has published more than seventy papers in field robotics, human-robot interaction, and robot user interfaces.

Observations of very distant exploding stars show that the expansion of the Universe is now speeding up, rather than slowing down due to gravity as expected. Over the largest distances, our Universe seems to be dominated by a repulsive "dark energy" of unknown origin that stretches the very fabric of space itself faster and faster with time. Dr. Filippenko, a member of both teams that discovered in 1998 the accelerating expansion of the Universe driven by "dark energy," describes this phenomenon. This talk is very timely, as the Nobel Prize for Physics was awarded in October 2011 to three of the scientists that measured the expansion of the universe related to Dark Matter. Alex Filippenko's research accomplishments, documented in more than 660 published papers, have been recognized by several major prizes, and he is one of the world's most highly cited astronomers. In 2009 he was elected to the National Academy of Sciences, and he shared part of the Gruber Cosmology Prize in 2007.

College of San Mateo and the San Mateo County Astronomical Society present:

A Family Science & Astronomy Festival

Saturday, November 5 • 2-11 pm

College of San Mateo Science Building 36 & Theatre (Bldg. 3)

1700 West Hillsdale Blvd., San Mateo, CA



Featuring:

Planetarium shows
Science demonstrations
Hands-on workshops

Keynote speech by UC Berkeley
professor Dr. Alex Filippenko
(sponsored by the CSM President's Lecture Series)

And much more!



Park free of charge in the Marie Curie Lot 5 for all events.
After 4:00 pm, park in Beethoven Lot 2 for the keynote presentation.
For a campus map, visit collegeofsanmateo.edu/map.

For more information and event schedule, go to:
collegeofsanmateo.edu/astronomy or www.SMCAS.com.

From the Prez:

The "Family Science and Astronomy Festival" is on the first Saturday of November, November 5, 2011. I hope all of you have it on your calendar already . See page 3 for a copy of the flyer.

The Family Science and Astronomy Festival is part of the Bay Area Science Festival. SMCAS has also been contributing to this event by offering the San Mateo Library system Star Parties. If you are not familiar with them, star parties are an event where members share the view of astronomical objects with visitors and each other. The libraries that took advantage of these offers and the results are as follows:

- Foster City - 10/03/2011 - Bad weather forced cancellation.
- Atherton - 10/21/2011 - Some communications problems resulted in there only being one member and telescope but it was still well received
- South San Francisco 10/24/2011 - Four SMCAS astronomers and telescopes attend but clouds prevented viewing any objects except for a brief view of Jupiter. There was a reasonably good turnout of the public in spite of the weather. Various SMCAS astronomers engaged the attendees in discussions of a number of astronomy topics.
- Belmont - 10/28/2011 - Eight SMCAS astronomers and about 75 of the public attended the event. There was a lot of discussion and viewing, especially of Jupiter. The library supplied cookies and hot chocolate. There was a lot of interest in SMCAS and we passed out information and flyers for the Family Science and Astronomy Festival.
- Menlo Park - 11/01/2011 - Was after the publication date of this newsletter. Go on line and view the revised newsletter to see an update on this event.

Looking forward, it will soon be time for membership renewal. Every member, except those who joined after July 1st will need to renew by year end. Last year the board decided to have all memberships expire on January 1 of each year.

To renew you can send a check to SMCAS, at PO Box 974, Station A, San Mateo, CA 94403. You can also renew with a credit card by going to <http://www.SMCAS.com> and selecting the membership tab.

One of the benefits of membership is discounted subscriptions to Astronomy. Our members interest in magazines has fallen off lately because of the vast amount of information on the internet, but we can still offer discounts. We will do that through the Night Sky Network and if you contact me I'll get a logon for you and instructions on how to get the club discounts.

Good news for observers, Daylight Savings Time ends on November 6th. Furthermore, as we approach the winter solstice the days grow shorter. This means we can start our star parties much earlier. It's a great time to show the heavens to kids. Unfortunately, in the Bay Area this tends to be some of our worst weather. I encourage you to attend our Star Parties any time the sky is clear.

Ed Pieret, President
(650)862-9602

San Mateo County Astronomical Society
SMCAS@live.com



The Gray Cubicle You Want to Work In

By Dr. Tony Phillips

It's another day at the office.

You're sitting in a gray cubicle, tap-tap-taping away on your keyboard, when suddenly your neighbor lets out a whoop of delight.

Over the top of the carpeted divider you see a star exploding on the computer screen. An unauthorized video game? No, this explosion is real. A massive star just went supernova in the Whirlpool Galaxy, and the first images from Hubble are popping up on your office-mate's screen.

It's another day at the office ... *at NASA.*

Just down the hall, another office-mate is analyzing global temperature trends. On the floor below, a team of engineers gathers to decode signals from a spaceship that entered "safe mode" when it was hit by a solar flare. And three floors above, a financial analyst snaps her pencil-tip as she tries to figure out how to afford *just one more* sensor for a new robotic spacecraft.

These are just a few of the things going on every day at NASA headquarters in Washington DC and more than a dozen other NASA centers scattered around the country. The variety of NASA research and, moreover, the variety of NASA people required to carry it out often comes as a surprise. Consider the following: NASA's Science Mission Directorate (SMD) supports research in four main areas: Earth Science, Heliophysics, Astrophysics, and Planetary Science. Read that list one more time. It includes everything in the cosmos from the ground beneath our feet to the Sun in the sky to the most distant galaxies at the edge of the Universe.

Walking among the cubicles in NASA's science offices, you are likely to meet people working on climate change, extraterrestrial life, Earth-threatening asteroids, black holes or a hundred other things guaranteed to give a curious-minded person goose bumps. Truly, no other government agency has a bigger job description.

And it's not just scientists doing the work. NASA needs engineers to design its observatories and build its spacecraft, mathematicians to analyze orbits and decipher signals, and financial wizards to manage the accounts and figure out how to pay for everything NASA dreamers want to do. Even writers and artists have a place in the NASA scheme of things.

Someone has to explain it all to the general public.

Clearly, some cubicles are more interesting than others. For more information about the Science Mission Directorate, visit science.nasa.gov. And for another way to reach the Space Place, go to <http://science.nasa.gov/kids>.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.








Some of the employees of NASA's Science Mission Directorate may work in gray cubicles, but their jobs are anything but dull. They get to study Earth, the Sun, the Solar System, and the Universe!

General Meeting Notes – October 7, 2011

About 70 attended the General Meeting in the College of San Mateo Planetarium, which was preceded by a social half-hour fueled by pizza. President Ed Pieret made a few announcements about upcoming events (Star Parties, Jazz Under the Stars, and the November 5th Astronomy Day (coupled with the CSM Family Science Day and featured Speaker, Alex Filippenko).

The featured presentation was given by a frequent, and very informative and entertaining, speaker, Dr. Chris McKay, Senior Space Scientist, NASA Ames Laboratory, Mountain View, *This Titan Life, Three Short Stories*. The *stories: On the Beach, Hydrogen – A Light Lunch, and Soup's On* described three areas of Dr. McKay's ongoing research about Saturn's largest moon Titan. *On the Beach* addressed the still unanswered question of why is liquid methane still present on Titan (solar radiation should have destroyed all the methane billions of years ago). *Hydrogen – A Light Lunch* covered recent findings from the Cassini probe that the atmospheric concentrations of hydrogen may decrease near Titan's surface ... if so, then consumption of hydrogen by hypothesized life at the surface, might be the explanation for these observed reductions in hydrogen. *Soup's On* described an ongoing experiment in a terrestrial laboratory: testing whether any life-related organic compounds are synthesized when electric currents pass through a liquid mimicking the methane liquid bodies on Titan, which also have the kinds of organic compounds that fall into the methane from Titan's atmosphere (the *soup*) ...no definitive results so far.

November 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Menlo Park Library Star Party	2 First Quarter 	3	4 SMCAS Meeting	5 Family Science and Astronomy Day
6 DST Ends 	7	8	9 Roosevelt School (Burlingame) Star Party	10 Full Moon 	11 Veterans Day The Sky Tonight Planetarium Show	12
13	14	15	16	17	18 Last Quarter 	19 Crestview Star Party
20	21	22 Park School (San Mateo) Star Party	23	24 Thanksgiving Day	25 New Moon  Partial Solar Eclipse (not visible from US)	26 Crestview Star Party
27	28	29	30			

2011	Nov 5 Rise	Nov 5 Set	Nov 19 Rise	Nov 19 Set	Nov 26 Rise	Nov 26 Set
Sun	7:38 AM	6:07 PM	6:52 AM	4:56 PM	7:00 AM	4:53 PM
Moon	3:22 PM	2:58 AM	12:26 AM	1:10 PM	8:35 AM	6:32 PM
Mercury	9:31 AM	7:03 PM	8:47 AM	6:03 PM	8:20 AM	5:43 PM
Venus	9:26 AM	7:12 PM	8:56 AM	6:21 PM	9:08 AM	6:30 PM
Mars	1:24 AM	2:57 PM	12:03 AM	1:22 PM	11:50 PM	1:04 PM
Jupiter	5:40 PM	7:00 AM	3:40 PM	4:57 AM	3:11 PM	4:26 AM
9 PM, East on left	c g J i e		c g J e		g J e c	
Red Spot transit	5:36 PM	6:07 PM	6:53 PM			
Saturn	5:58 AM	5:20 PM	4:10 AM	3:29 PM	3:46 AM	3:03 PM
Uranus	4:13 PM	4:19 AM	2:17 PM	2:23 AM	1:49 PM	1:55 AM
Neptune	2:49 PM	1:37 AM	12:54 PM	11:39 PM	12:26 PM	11:11 PM
Pluto	11:33 AM	9:33 PM	9:40 AM	7:39 PM	9:13 AM	7:13 PM

Note: Times for November 5 are PDT, other dates are PST.

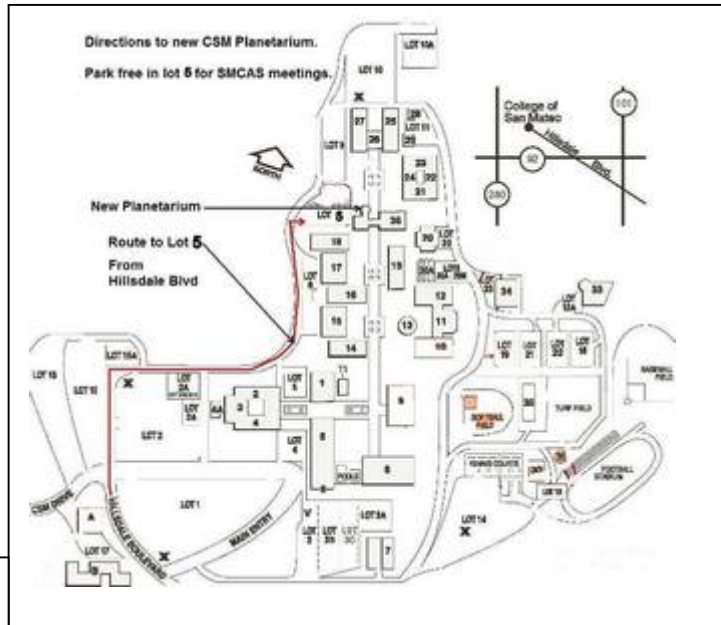
Past Astronomy Functions





Directions to Planetarium

After coming off HW92 at Hillsdale Blvd towards CSM, proceed up hill through the second and third sets of traffic lights until you come to the first stop sign, where you enter the campus, and continue straight. After the third stop sign, turn into the first parking lot on the right. This is now called Lot 5. The planetarium is directly ahead of you. Enter the building (36) through the door facing the parking lot.



Directions to Crestview Park

Crestview Park

Come out and bring the kids for a mind-expanding look at the universe!

Bring your binoculars, telescopes, star guides, and lounge chairs for some informal star gazing at Crestview Park. Dress warmly and wear a hat. Visitors should park on the street or arrive before dark so that headlights don't affect the observers' dark adaptation. Bring small flashlights only, with the lens covered with red cellophane or red balloon. Please don't touch a telescope without permission. And parents, please watch your children.

Take Hwy 101 or El Camino to Brittan Avenue in San Carlos, and turn west (right from El Camino). From El Camino, follow Brittan about 2.3 miles to the intersection with Crestview Drive.

From Alameda, go about 1.4 miles to Crestview. Turn right on Crestview. A small sign saying "Crestview Park" is a half-block ahead on the right. Look to the left for the park entry road, a small street between houses #998 and #1000. If after dark, please park on Crestview near the park entrance and walk in the short distance, to avoid safety issues and disturbing the telescope setup and viewing.

From Highway 280 to Edgewood Road. Go east (toward Bay) about 0.8 miles. Left on Crestview Dr. Go 0.5 miles uphill to the intersection with Brittan Avenue. Go one short block to the park entrance on the left.

Note: The park is residential, and adjacent to homes and backyards. Before inviting noisy groups, please call Ed Pieret or Leroy Amen.

For more information, call:
 Leroy Amen: 573-0935
 Leroy's cell: 504-5196
 Ed Pieret: 595-3691

Membership Application

To join the San Mateo County Astronomical Society or to renew your membership please send dues by check payable to "SMCAS" to the address below. Dues are \$35 for a new member, \$30 for Renewing members and \$25 for students and seniors.

SMCAS, at PO Box 974, Station A, San Mateo, CA 94403

Check one: () New member () Membership renewal () Address or info change

NOTE TO EXISTING MEMBERS: do not fill in address etc. unless it's changed!

Name(s) _____

Address/City/Zip: _____

Phone(s) _____ Email _____

Meetings of the San Mateo County Astronomical Society are held the **first Friday of the month (except in July and August)** in the Planetarium at the College of San Mateo, located at 1700 West Hillsdale Blvd. in San Mateo. Exit Hwy. 92 at West Hillsdale Blvd. and, proceed uphill through the second and third sets of traffic lights until you come to the first stop sign, where you enter the campus, and continue straight. After the third stop sign, turn into the first parking lot on the right. This is Lot 7. The planetarium is directly ahead of you. Enter the building (36) through the door facing the parking lot.

Officers: President: Edmund Pieret; **Vice-President:** Chanan Greenberg; **Secretary:** John Fiske; **Treasurer:** Marion Weiler

Board Members-At-Large: Bob Franklin, Ken Lum, Mike Ryan, Murad Hamidouche.

Membership: open position **Newsletter:** Dave Wolf, Ron Cardinale, Darryl Stanford, John Garis, Bob Fies.

Program: Marion Weiler, **Publicity:** open position; **Reporter:** open position

Event Horizon Editor: Dave Wolf **NOTE:** We welcome articles and photos submitted by the 15th of the month prior to publication.

Contacts:

Website: <http://www.smcas.com>

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