The SAN MATEO COUNTY ASTRONOMICAL SOCIETY

June, 2011 586th General Meeting Notice

EVENT HORIZON

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.

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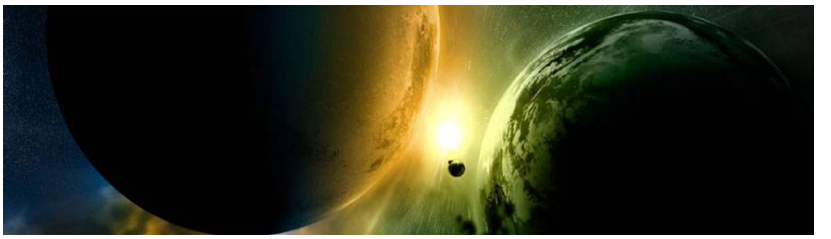
EXO-EARTHS POSE FOR ASTRO-PAPARAZZI!

(Shameless photos will catch planets in conjunction!!)

Dr. Rus Belikov, Astrophysicist, NASA Ames, will discuss what happens after Kepler finds likely candidates for Earth-like planets circling other stars: missions to learn more about these potential sister-planets, including the possibility of capturing images of them in a variety of provocative poses. Maybe even catching some inhabitants sunbathing nude! To learn more about it, come to the Science Center on Friday June 4 at 7:30.
(See page 9 for directions.)



Images of Exo-Earths (not really; not yet.)

MONTHLY STAR PARTIES

Crestview Park in San Carlos
Saturday June 4, 25

See page 9 for directions
See page 8 bottom of calendar for rise & set times

ANNOUNCEMENTS

SPEAKER: Dr. Rus Belikov

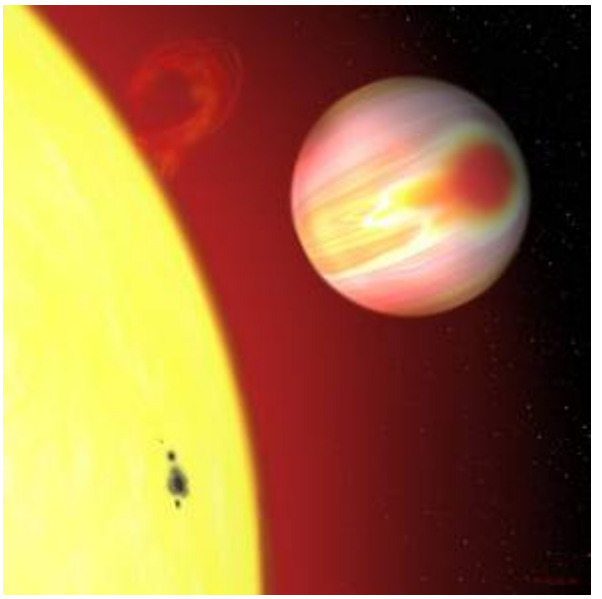
TOPIC: Beyond Kepler: Imaging Exo-Earths

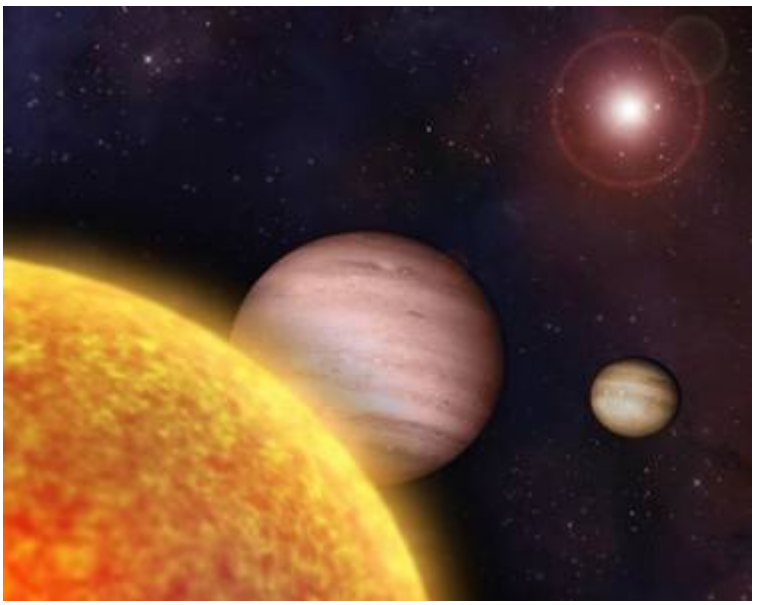
TIME: 8:00pm June 4

WHERE: The CSM Planetarium Bldg 36, Parking Lot 5
Free and open to the public

Is there another Earth out there?

People have been asking this question for over two thousand years, and we finally stand on the verge of answering it. The Kepler mission (which was featured at our April meeting) will likely find the first ever Earth-sized planet around the habitable zone of another star. This talk is about the next step after Kepler, which might be a mission to directly image Earth-like planets and analyze their spectra for biomarkers such as oxygen, water, and atmosphere. The talk will cover the technology of direct planet imaging, focusing on the work done at NASA Ames, as well as the science we might get out of it and some repercussions. For example, what if the inhabitants of those habitable planets take offense at our use of their image without their permission? They might sue us in Interplanetary Court.





Of course, images like these are illustrations. The only way to get photos with this kind of detail and resolution would be to get a lot closer to the subject. Bring your Nikon.

From the Prez:

Active members should have received a letter from me in the last two weeks. The letter was a request for contributions to help us make the SMART project successful. For those who might be reading this but are not active members of SMCAS, I would like to summarize the points made in the letter.

SMART is an acronym for San Mateo Arctic Telescope and is a partnership between the SMCAS, the College of San Mateo, the Mars Institute and the SETI institute. Its objective is to place a remotely operated telescope in the High Arctic at or near the Haughton-Mars Project (HMP) location. This project has the enthusiastic cooperation of the HMP director, Dr. Pascal Lee.

Placing the telescope in the arctic has two major objectives: 1) enable long baseline observations throughout the 3 month night at the location and 2) test procedures and equipment for a remote telescope in an inaccessible location for a potential future lunar telescope.

We are asking for contributions for the first step of this project, sending a student intern to HMP to scout out possible locations. The student chosen is CSM student and SMCAS Member Louis Alvarez.

Members have asked me why SMCAS is involved in this project. There are several advantages to your club in doing this including:

- The prestige of being the only amateur club working with the Mars Institute and the SETI institute.
- Cement our role with CSM by helping them provide a meaningful astronomy internship which in turn helps them offer an AS degree in astronomy.
- Provide publicity for SMCAS and our public outreach through this highly visible activity.
- Help SMCAS attract high quality speakers to our meetings.
- Provide an opportunity for our members to interface directly with astronomers from the Mars institute and the SETI institute.

We desperately need your help to keep up our part of the partnership. The Mars institute is paying for half of the student interns expenses. CSM is obtaining significant personal donations from the academic and administrative staff of up to $1,000. We only need a few thousand dollars more and are asking SMCAS membership and friends to step up and help with donations. Please contribute what you can and if you have a relationship with a corporation please solicit them as well. Don't forget that many corporations have matching grant programs.

You can contribute by writing a check to SMCAS with SMART on the memo line. Mail the check to SMCAS, at PO Box 974, Station A, San Mateo, CA 94403 or hand it to a club officer at the June meeting. You can make a Credit Card contribution by going to http://www.smcas.com/smart/ and clicking on the donate button on the top of the page. SMCAS is a 501(c)(3) corporation so the contributions could be tax deductible, depending on your individual tax situation..

On another subject, I would like to remind you that SMCAS will elect officers and board members at the June 3 meeting. If you would like to take one of these positions or are interested in being groomed for one of them in the future, please see me. We are very anxious to get some new people involved in running the club.

Ed Pieret, President
(650)862-9602

San Mateo County Astronomical Society
SMCAS@live.com

San Mateo Arctic Research Telescope

SMART

A collaboration of CSM, SMCAS, SETI Institute and Mars Institute.

Your contribution will help fund a project to establish a remotely operated telescope at Haughton-Mars Project Research Station on Devon Island in the High Arctic, to be used for scientific research on extrasolar planets.

To contribute, please go to http://www.smcas.com/SMART or send a check to SMCAS, PO Box 974, Station A, San Mateo CA 94403.

SMCAS is a California 501(c)(3) non-profit corporation.

Milky Way Safari

by Dauna Coulter and Dr. Tony Phillips

Safari, anyone? Citizen scientists are invited to join a hunt through the galaxy. As a volunteer for Zooniverse's Milky Way Project, you'll track down exotic creatures like mysterious gas bubbles, twisted green knots of dust and gas, and the notorious "red fuzzies."

"The project began about four months ago," says astrophysicist Robert Simpson of Oxford University. "Already, more than 18,000 people are scouting the Milky Way for these quarry."

The volunteers have been scrutinizing infrared images of the Milky Way's inner regions gathered by NASA's Spitzer Space Telescope. Spitzer's high resolution in infrared helps it pierce the cloaking haze of interstellar gas and dust, revealing strange and beautiful structures invisible to conventional telescopes. The Milky Way Project is helping astronomers catalogue these intriguing features, map our galaxy, and plan future research.

"Participants use drawing tools to flag the objects," explains Simpson. "So far they've made over a million drawings and classified over 300,000 images."

Scientists are especially interested in bubble-like objects believed to represent areas of active star formation. "Every bubble signifies hundreds to thousands of young, hot stars. Our volunteers have circled almost 300,000 bubble candidates, and counting," he says.

Humans are better at this than computers. Computer searches turn up only the objects precisely defined in a program, missing the ones that don't fit a specified mold. A computer would, for example, overlook partial bubbles and those that are skewed into unusual shapes.

"People are more flexible. They tend to pick out patterns computers don't pick up and find things that just look interesting. They're less precise, but very complementary to computer searches, making it less likely we'll miss structures that deserve a closer look. And just the sheer numbers of eyes on the prize mean more comprehensive coverage."

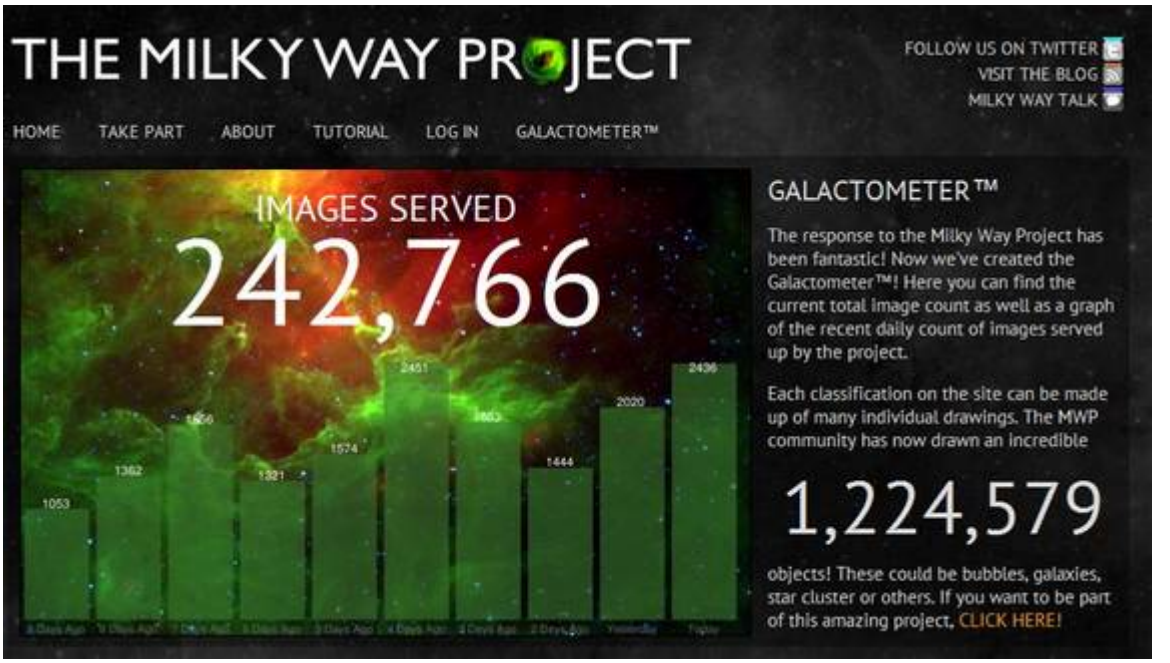
Along the way the project scientists distill the volunteers' data to eliminate repetitive finds (such as different people spotting the same bubbles) and other distortions.

The project's main site (http://www.milkywayproject.org) includes links to a blog and a site called Milky Way Talk. Here "hunters" can post comments, chat about images they've found, tag the ones they consider especially intriguing, vote for their favorite images (see the winners at http://talk.milkywayproject.org/collections/CMWS00002u), and more.

Zooniverse invites public participation in science missions both to garner interest in science and to help scientists achieve their goals. More than 400,000 volunteers are involved in their projects at the moment. If you want to help with the Milky Way Project, visit the site, take the tutorial, and … happy hunting!

You can get a preview of some of the bubbles at Spitzer's own web site, http://www.spitzer.caltech.edu/. Kids will enjoy looking for bubbles in space pictures while playing the Spitzer concentration game at http://spaceplace.nasa.gov/spitzer-concentration/.

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



Volunteers study infrared images of our galaxy from the Spitzer Space Telescope, identifying interesting features using the special tools of the Milky Way Project, part of the Citizen Science Alliance Zooniverse web site.

General Meeting Notes – May 6, 2010

We met in the ISC from 7:30PM to 8:00PM so that members could talk astronomy and greet visitor over pizza. At 8:00PM we moved to the Planetarium where about 100 people attended the talk by Nancy Ellen Abrams and Joel R. Primack titled "The New Universe and the Human Future of San Mateo Planetarium." Many of the first time visitors were drawn by the lecturers.

President Ed Pieret played a short video of Carl Sagan discussing the importance of searching for possible alien intelligence and then told the group that the SETI institute has announced that the Allen Telescope Array is being mothballed because of budget cuts. He then made the following announcements:

- Upcoming events (Star Parties, Jazz Under the Stars, Planetarium Shows)
- A request for financial support for the SMART project
- Nominations for all Board positions (President, Vice-President, Secretary, Treasurer, and five at-large members) were opened. The election will be held at the June General Meeting (June 3rd).

The talk was engaging and somewhat controversial. Some members felt that parts of the talk verged upon the political, especially in regards to global warming. Although it got confrontational, in the end everyone agreed to disagree and left friends.

June 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 New Moon  Partial Solar Eclipse	2	3 SMCAS Meeting	4 Crestview Star Party
5	6	7	8 First Quarter 	9	10	11
12	13	14	15 Full Moon  Total Lunar Eclip	16	17	18
19 Father's Day	20	21 Summer Solstice	22	23 Last Quarter 	24	25 Crestview Star Party
26	27	28	29	30		

2011		**June 4 Rise**	**Jun 4 Set**	**June 25 Rise**	**June 25 Set**
Sun	Solstice on 21st	5:48 AM	8:27 PM	5:49 AM	8:34 PM
Moon		8:25 AM	11:00 PM	1:36 AM	3:33 PM
Mercury	See note below	5:16 AM	7:38 PM	6:51 AM	9:41 PM
Venus	Before Sunrise	4:46 AM	6:46 PM	4:52 AM	7:29 PM
Mars	Before Sunrise	4:25 AM	6:18 PM	3:50 AM	6:11 PM
Jupiter	Before Sunrise	3:37 AM	4:46 PM	2:25 AM	3:43 PM
	6 AM, East on left		c e i J g		c e i J g
	Red Spot transit		8:31 PM		10:55 PM
Saturn	Much of the night	3:02 PM	2:59 AM	1:40: PM	1:36 AM
Uranus	In the wee hours	2:29 AM	2:39 PM	1:08 AM	1:18 PM
Neptune	In the wee hours	1:05 AM	11:57 PM	11:39 PM	10:34 AM
Pluto	Opposition on 27th	9:42 PM	7:49 AM	8:17 PM	6:25 AM

- Mercury is in conjunction with the sun on the 12th. It moves from the morning sky to the evening sky.
- Earliest sunrise is on the 14th.
- Solstice is on the 21st at 10:17 AM. This is the longest day.
- Latest sunset is on the 28th.

Astronomy Day April 9, 2011

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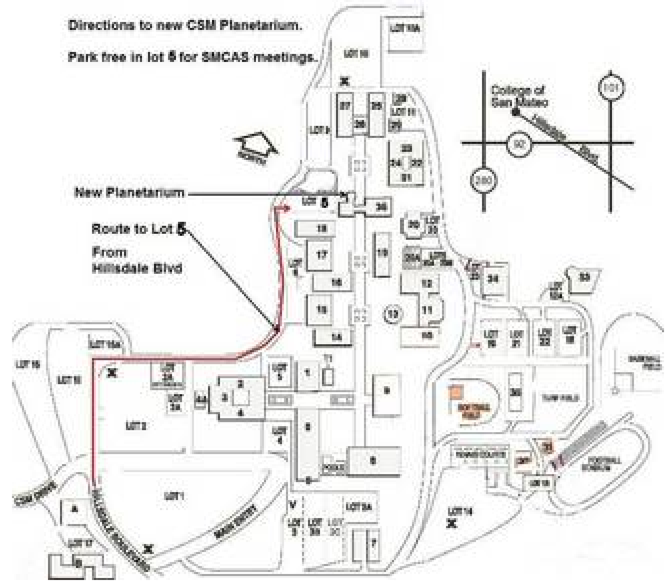

Directions to Planetarium

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 flash-lights only, with the lens covered with red cellophane or red balloon. Please don't touch a tele-scope 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 intersec-tion 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 Dues: Membership annual dues are payable yearly, on your renewal date which is shown on your Event Horizon mailing label. See the back page of the Event Horizon for mailing instructions. Members who are over 3 months past due will be removed from the Event Horizon mailing list until their dues are paid. Members who are over 6 months past due will be removed from the active membership rolls. These members will not be eligible for club privileges but can retain membership in the Yahoo group. We will try to contact the members personally prior to making them inactive.

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
Email: SMCAS@live.com
Telephone: Ed Pieret at (650) 862-9602

SMCAS
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