



# OVER NO ZENITH

Long foretold by soothsayers, the founding of the San Mateo County Astrological & Alchemical Society heralded the dawning of the Age of Aquarius.

Incorporated under the sign of Taurus, the society exhibits the Bull's characteristic appetite for luxury and good living. Visitors are invited to experience new heights of hedonistic self-indulgence amid the simmering sauce-vats of the Society's legendary "spaghetti feed" banquets, gastronomic extravaganzas where pasta and pizza toppings prepared by the alchemic masters of the SMCAAS board of directors are complemented by a discerning selection of prepackaged frozen desserts.

Membership includes access to knowledge of the heavens not limited merely to that which can be seen through telescopes, plus free souvenir keyrings.



*SMCAAS VICE-HIEROPHANT Paracelsus "Buzz" Reticuli sits at the controls of the Society's new dephlogistication powered space vehicle or "flying saucer". Special thanks to the members who transmuted base metals for its nickeldymium outer plating. Please contact Buzz if you see the vehicle. Because of the Heisenberg uncertainty principle, we don't know where it is.*

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How **YOU** can help get Ophiuchus reclassified as a dwarf constellation. *Page 31.*

All about telescopes: refractors, reflectors, and ~~cataract~~ catapodics the other kind. *Page 41.*

Unexpected 361st degree discovered in circle: angles are all just a little bit bigger than we thought they were. *Page 59.*

New! Convenient online scheduling for alien abductions. *Page 26.*

# The SAN MATEO COUNTY ASTRONOMICAL SOCIETY

April 2016 — 635th General Meeting Notice

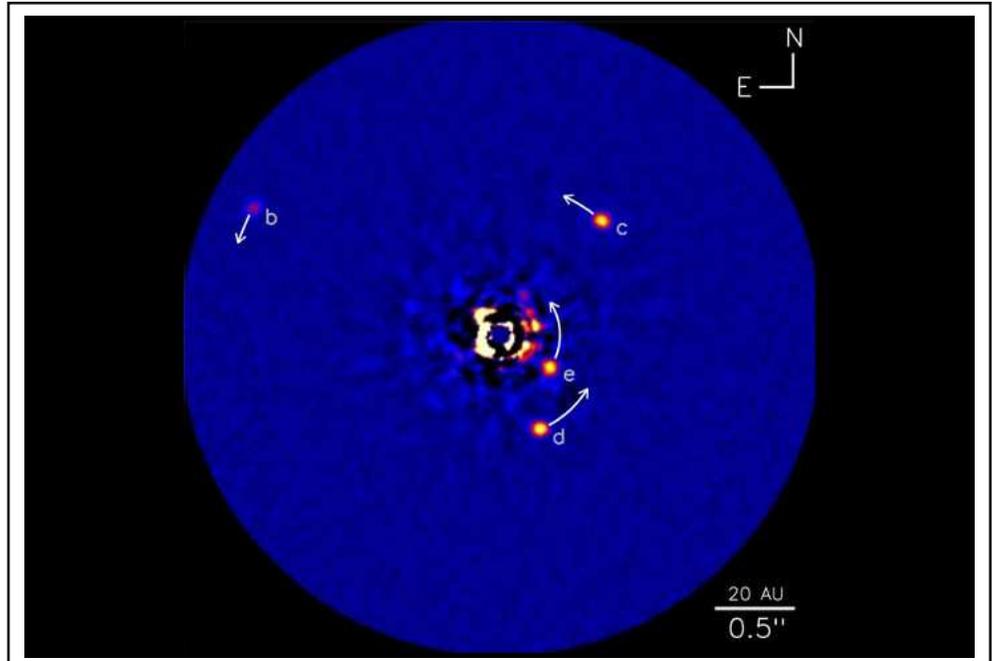


# EVENT HORIZON

Founded in 1960, the San Mateo County Astronomical Society is a 501(c)(3) non-profit organization for amateur astronomers and interested members of the public. Visitors may attend Society meetings and lectures on the first Friday of each month, September to June, and star parties two Saturdays a month. All events are free for visitors and guests. Family memberships are offered at a nominal annual cost. Detailed info is found at [www.smcastro.com](http://www.smcastro.com), where those who want can join via Paypal. Membership includes access to this monthly Event Horizon newsletter, discounted costs and subscriptions to calendars and magazines, monthly star parties of the Society and the College of San Mateo, use of loaner telescopes, field trips, social occasions and general meetings presenting guest speakers and programs. For additional information, please email us at [SMCAS@live.com](mailto:SMCAS@live.com), or call us at (650) 678-2762.

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*ADVANCES IN IMAGING OF EXOPLANETS* were the topic of the presentation at the March SMCAS meeting by Dr Eric Nielsen of SETI and Stanford University. Above is a direct image of exoplanets around the star HR8799 using a stellar coronagraph on the W. M. Keck telescope in Hawaii. Main article on page 5.

## DATES TO SAVE

**Apr 1:** General Meeting, Pizza, and Presentation at the CSM Planetarium. Details on page 4.

**Apr 8:** Symvisio: A Visual Equivalent of Symphony, by Mohsen Janatpour, CSM Theater, star party to follow. Details on page 8.

**May 6:** General Meeting, Pizza, and Presentation at the CSM Planetarium.

More events on page 7.

## President's Corner

The San Mateo County Astronomical Society is fundamentally a society of individuals who share a common interest in astronomy. Our members enjoy being with others who share that interest, and we like to learn from and share our knowledge with each other. Through SMCAS we have created an environment that gives us opportunities to learn from each other at events such as star parties, monthly meetings, and astronomy festivals. We get to also socialize with each other, such as at our general meeting pizza socials and our periodic equinox spaghetti dinners such as we had March 19th, and other member events.

Being organized as SMCAS also gives us a formal means to access other astronomical resources that would not be readily available to us as individuals. Think of the great astronomy and space science we are exposed to each month through the presentations we receive from world renowned scientists. Or the access we have to institutions such as SLAC National Labs, who have provided us with private tours.

Or even at the most basic level of our operation, think of what the College of San Mateo has provided to us in terms of the excellent physical infrastructure that allows us to exist: the ISC room for our general meetings (and our board meetings as well), a world class planetarium facility for our presentations (complete with staff to run it), as well as free parking. We owe them much gratitude for what they provide to us!

Why do we have access to all this richness of talented individuals, physical infrastructure, and institutional support? A major reason is that these individuals and institutions see the impact we have on the greater community beyond our inward focused activities that benefit members. Just as we are the recipients of the generosity of others that allow our society to flourish, we likewise are being generous with our time and expertise to these other institutions, and perhaps most importantly, to individuals in the greater community of the Peninsula. Through our activities, we touch the student community at CSM and local schools. We especially impact and influence the next generation of amateur and professional astronomers and scientists, and help create a more scientifically informed community.

Our monthly presentations add value to the astronomy program at CSM. They are attended by students from the CSM astronomy program, which has somewhere around 300–400 students. Plus students from local high and elementary schools. Our star parties at Crestview park and local schools (when weather permits!) bring the joy of astronomy to many hundreds more elementary school students each year. And we have had a major impact in the community via our members involvement in Project ASTRO.

Recently SMCAS received recognition for continued support of activities at the John Muir School, San Bruno Park. In an article in the Winter, 2016, "Report to the Community" by the San Bruno Park School District, SMCAS was lauded for long-term support of star parties and Project ASTRO activities (at least 10 years) in 4th and 5th grade classrooms. SMCAS members Ed Pieret, John Fiske, Bob Fies, Mike Ryan, John Garis, Bob Black, Ken Lum and others have helped with the star parties; and Ed and John Fiske have volunteered in the classrooms. Thank you all! The School Principal, Dr. Fran Dunleavy, and the current 4th and 5th grade teachers, Phylis Takahashi, Robin Burns, and Debbie Heiman, are strong supporters of the star party partnership with SMCAS and of Project ASTRO.

**Continued on p. 6**



# Project ASTRO



*Show a child the universe and inspire  
the next generation of science leaders*

## **ASP's Project ASTRO partners Teachers with Astronomers in Bay Area Schools & Community Organizations**

**Project ASTRO** seeks 5th–9th grade teachers and astronomers who have a passion for sharing the wonders of astronomy with students. Teacher-Astronomer partners will attend a free 1.5-day fall workshop to learn hands-on, inquiry-based astronomy activities designed to inspire and excite students in their science pursuits and eventual professions.

**Project ASTRO** will return for the 2016–2017 school year. All participants are required to attend a free 1.5-day workshop held at the College of San Mateo Planetarium in San Mateo. Program participants receive *The Universe at Your Fingertips 2.0*, a compilation of astronomy teaching resources, as well as materials from NASA. Graduate students and advanced undergraduate students majoring in astronomy are also encouraged to apply!



.....  
**Apply online to join the Project ASTRO program by August 22, 2016:**

**Teacher application:** [astrosociety.org/education/k12-educators/teacher-information/](http://astrosociety.org/education/k12-educators/teacher-information/)

**Astronomer application:** [astrosociety.org/education/k12-educators/astronomer-information/](http://astrosociety.org/education/k12-educators/astronomer-information/)

### **Project ASTRO Introductory Workshop 2016**

Friday & Saturday, September 16–17

Friday, 5:00pm–10:00pm; Saturday, 9:00am–4:30pm

College of San Mateo, San Mateo, CA

**Attendance is required!**

.....  
**CONTACT:**

Project ASTRO Coordinator  
[bayareaastro@astrosociety.org](mailto:bayareaastro@astrosociety.org)

**MORE INFORMATION:**

[astrosociety.org/baprojectastro.html](http://astrosociety.org/baprojectastro.html)  
415-715-1426

[SMCAS General Meeting and Presentation on April 1, 2016](#)

**R Jay GaBany**

CCD Imaging

**River of Stars:**

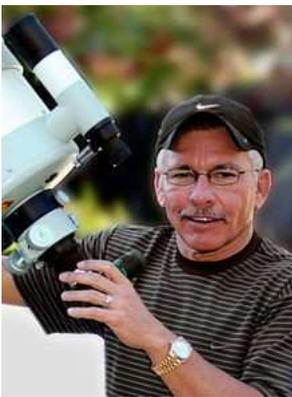
**A Survey of Stellar Tidal Streams in Nearby Star Systems**

Friday, April 1, 2016 , [College of San Mateo, Building 36](#)

SMCAS General meeting at 7:00 p.m. ISC Room, room 110

Presentation at 8:00 p.m. [Planetarium](#)

Free and open to the public, free parking.



Ongoing collaboration between the speaker and an international team of professional astronomers has demonstrated the scientific potential of modest aperture, commercially produced, semi-robotic telescopes under steady dark skies using affordable off-the-shelf astronomical cameras to reveal extremely dim, diffuse structures on the outskirts of distant galaxies and shed light on galactic evolution. This presentation will share techniques, experiences and highlights of the investigations thus far.

R Jay GaBany is an internationally recognized expert in astrophotography. He has served on the board of directors for the Advanced Imaging Conference (AIC) since 2006 and as its president and CEO since 2014, and is a former member of the Kitt Peak Visitor Center Advisory Board. He has presented to various audiences; been

interviewed on live radio; written over fifty articles for *Universe Today*, *Sky & Telescope* and the UK's *AstronomyNow*; and been featured in *Wired* and *Discover*. His images have appeared in the journals *Science* and *Nature*, and on the cover of the journal *Astronomy & Astrophysics* and several other leading astronomy magazines around the world.

In early 2011, he was awarded the Chambliss Amateur Achievement Award for 2010 by the American Astronomical Society (AAS). During the fall of 2012 and again in 2013, he was selected as one of the 25 most influential people in space by the Editors of TIME magazine.

In September of 2011, this image of NGC 3521, the Bubble galaxy, was selected by NASA to serve as the uncredited backdrop for the International Space Station Expedition 30 official crew portrait. A non-professional astro-photograph has been used for this purpose only one time before this.

His first book, *Breakthrough! 100 Astronomical Images that Changed the World* was published in November 2015. Co-authored with noted astrophotographer Dr. Robert Gendler, the book explores the history of astrophotography through the lens of 100 ground breaking images that altered humanity's perception of its place in the universe.



## March Meeting Review

### The Gemini Planet Imager

**By Ken Lum**

Since the initial discovery of extrasolar planets starting in the mid 1990s, it has been the ultimate goal of astronomers to actually image these planets directly and separate from their host stars. Last month, Dr. Eric Nielsen from SETI and Stanford University came to describe the progress that has been made towards this end. Separating the light of a planet from that of its host star when the image of the planet is buried well within the overwhelming Airy disk of the star image is a challenge, especially using ground based telescopes. But to be able to do so promises considerable rewards such as spectroscopy to determine chemical composition, possibly looking for chemical signatures of life, as well as perhaps even imaging surface features.

Of course, exoplanets have been imaged directly with space-based telescopes located above the Earth's distorting atmosphere such as the Hubble Space Telescope. Fomalhaut b has been imaged in this way.

For ground based telescopes, adaptive optics using a computer controlled deformable mirror in the telescope's optical train has been able to compensate for the distortions of the Earth's atmosphere. This technique has been used successfully to directly image exoplanets discovered by the Kepler mission.

Still another more recent technique is Angular Differential Imaging (ADI) which takes advantage of the fact that most large modern reflecting telescopes are now mounted on altazimuth mounts rather than equatorial mounts. In this arrangement, the image of the astronomical object on the telescope's focal plane rotates around its center whereas the diffraction patterns of the image arising from the telescope's optics do not. This allows the observer to distinguish between



*Dr. Eric Nielsen of SLAC, on the left, with the SMCAS President, Marion Weiler*

the image coming from the astronomical object being observed from artifact arising from the optics. Digital subtraction and summation of the resulting images results in substantial improvement in the resolution of images. The technique is being used to search for planets between 50 and 300 AU from their host stars.

Also another technique is known as stellar coronagraphy, wherein a mask is used to block out the star's intense light so as to reveal smaller, faint bodies located very close in orbit around the star including not only extrasolar planets but orbiting debris disks. This has been applied to the star HR 8799 where 4 planets were directly observed (see cover image). The technique was originally invented by the French astronomer, Bernard Lyot in the 1930s to observe prominences on the Sun without needing to travel to a solar eclipse.

With the ability to directly image exoplanets, preliminary spectroscopy has been possible. Water and carbon monoxide have been detected

***continued on p. 6***

**President's Corner, continued from p. 2**

I encourage all SMCAS members to remain cognizant of our role in the community and why we get such great support. And, if you are not already, become engaged in our outreach activities to the community; give the next generation the same benefits we receive from others. Pay it forward, if you will. Please volunteer at our star parties, astronomy festivals, and the excellent Project ASTRO program, which is now recruiting volunteers for the next school year, to be trained in September:

<http://www.astrosociety.org/education/k12-educators/astronomer-information/>

See you at the general meeting April 1st, where, no April fools joke, we have another outstanding world class speaker coming to share their insights with us!

<http://www.smcasastro.com/meetings.html>

**Marion Weiler**

*President, San Mateo County Astronomical Society*

**Gemini Planet Imager, continued from p. 3**

on HR 8799b along with a near absence of methane.

Finally, Dr. Nielsen described the Gemini Planet Imager being built for the 8 meter Gemini South telescope in Chile. It will incorporate all of the technologies described above in an effort to expand the inventory of exoplanets to be imaged directly.

Future projects for searching for exoplanets include the Transiting Exoplanet Sky Survey (TESS) which will extend the work of the Kepler mission to seek out other transiting exoplanets

over most of the visible sky starting in 2017. The James Webb Space Telescope (JWST) is scheduled for launch in 2018 to continue the prior work of the HST with a more powerful instrument. In the mid 2020s, the Wide Field Infrared Satellite Telescope (WFIRST) will be launched to search for exoplanets by observing microlensing events caused by exoplanets passing in front of background stars and use a stellar chronograph to directly image exoplanets. And the 30 m Telescope will also be used to continue the imaging of exoplanets using adaptive optics once it is built.

**Solar System this Month**

The unexpectedly bright comet 252P/LINEAR has now moved far enough north to be visible from San Mateo. It has been reported near magnitude 4 in recent days (as of March 27), at or near naked eye visibility depending on conditions, which unfortunately include a bright waning gibbous Moon. It passed very near Earth (0.036 AU) and has just crossed into southern Ophiuchus moving rapidly north. It will slow down and probably fade quickly as it moves away. The *Sky & Telescope* web site has a finder chart.

The crescent Moon will occult Aldebaran during the daytime on April 10. Near San Mateo the star will disappear behind the dark limb at about 2:21pm and reappear at about 3:37.

The new moon on April 7 will be at perigee, producing large tides on the following days.

Mercury reaches greatest eastern elongation on April 18 with 18 degrees altitude at sunset. For our latitude in San Mateo this will be its best

**Continued on p. 10**

## Event Update

### Upcoming Holiday Party, Star Parties, and Monthly Meetings, for SCMAS this Year and Beyond!

We have many fun and interesting activities planned in the coming months. See the web site ([www.smcasastro.com](http://www.smcasastro.com)) or contact Marion Weiler (mgwe@pacbell.net) for more information or to volunteer at any of these events. Please contact Ed Pieret (epieret@comcast.net) if you are available to help out with Star Parties at Crestview Park and other locations.

Fri, Apr 1	7:00 pm	<b>General Meeting, Pizza Social and Presentation</b>
Sat, Apr 2	7:30 pm	<b>Crestview Park Star Party</b>
Fri, Apr 8	7:00 pm	<b>Symvisio: A Visual Equivalent of Symphony, by Mohsen Janatpour, CSM Theater</b>
Sat, Apr 9	7:30 pm	<b>Crestview Park Star Party</b>
Fri, Apr 22		<b>Lyrids Meteor Shower</b>
Sat, Apr 30	8:00 pm	<b>Crestview Park Star Party</b>
Fri, May 6	7:00 pm	<b>General Meeting, Pizza Social and Presentation</b>
Fri, May 6		<b>Eta Aquarids Meteor Shower</b>
Sat, May 7	8:00 pm	<b>Crestview Park Star Party</b>
Sat, May 7	5:00 pm	<b>KIPAC Open House + Star Party (contact Marion Weiler)</b>
Mon, May 9	Dawn	<b>Transit of Mercury (in progress at sunrise; ends 11:42 AM PDT)</b>
Sat, May 28	8:00 pm	<b>Crestview Park Star Party</b>
Sat, Jun 4	8:30 pm	<b>Crestview Park Star Party</b>

*Associated Students and the Math/Science Division of College of San Mateo presents*

## **Professor Mohsen Janatpour's Lecture & Art Exhibition**

*on*

### **Symvisio: A Visual Equivalent of Symphony**

Friday, April 8, 2016 • 7:30 pm • College of San Mateo Theatre

Admission FREE, Reception following

#### ***29<sup>th</sup> Presentation of Art & Science***

Music is NOT painting, and painting is NOT music! One unfolds in time, and the other in space. Yet, they have so much in common: They both play on our emotions and touch our souls. They both appeal to our intuition and make our creative juices flow. And they both deal with vibrations to make us vibrant.

However, there are also important differences! While musicians manipulate the frequency of sound to convey their message, painters depend on the frequency of light to express themselves. But, musicians and painters can, and do, learn from each other's work. After all they both work with vibration, and hence follow the same laws of harmonics.

Symphonic composition extends the enjoyment of music in time. My creation symvisio is an attempt to extend the enjoyment of painting in space. An added bonus is that the extension in space also prolongs the aesthetic experience of the artwork! In this 29th presentation of Art & Science, I would like to invite you to the exhibition of Symvisio No. XI, where I tell you more about symvisio, and share the experience with you.

We will complete the evening by setting up telescopes in front of the theatre, courtesy of the San Mateo County Astronomical Society and CSM Astronomy department. With help from the experts, you will be treated to the spectacular view of celestial beauties. —MJ

Beethoven parking lots C, D, E are closest to the event

See campus map at [collegeofsanmateo.edu/map](http://collegeofsanmateo.edu/map)

For more information, call (650) 574-6272

or visit Janatpour's web site at [www.mohsensart.com](http://www.mohsensart.com).



## April Rise and Set Chart

SMCAS 2016 (PDT)	Apr 02		Apr 09		Apr 16		Apr 30	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set
Sun	6:50 AM	7:33 PM	6:40 AM	7:40 PM	6:30 AM	7:46 PM	6:13 AM	7:59 PM
Moon	3:39 AM	2:28 PM	8:33 AM	10:36 PM	2:59 PM	3:44 AM	2:18 AM	1:18 PM
Mercury	7:18 AM	8:25 PM	7:20 AM	9:05 PM	7:16 AM	9:28 PM	6:45 AM	9:03 PM
Venus	6:18 AM	6:07 PM	6:12 AM	6:22 PM	6:05 AM	6:36 PM	5:54 AM	7:06 PM
Mars	11:50 PM	9:43 AM	11:27 PM	9:18 AM	11:02 PM	8:51 AM	10:02 PM	7:49 AM
Jupiter	5:05 PM	5:57 AM	4:34 PM	5:28 AM	4:04 PM	4:59 AM	3:06 PM	4:02 AM
Jupiter's moons	i c J g e		i j e g c		c i j e g		c i j e g	
9 PM, East on left	J=Jupiter, c=Callisto, e=Europa, g=Ganymede, i=Io							
Saturn	12:32 AM	10:19 AM	12:03 AM	9:51 AM	11:31 PM	9:23 AM	10:33 PM	8:26 AM
Uranus	7:13 AM	8:02 PM	6:47 AM	7:36 PM	6:20 AM	7:11 PM	5:27 AM	6:20 PM
Neptune	5:37 AM	4:49 PM	5:10 AM	4:23 PM	4:43 AM	3:56 PM	3:49 AM	3:03 PM
Pluto	2:44 AM	12:33 PM	2:16 AM	12:05 PM	1:49 AM	11:38 AM	12:54 AM	10:43 AM

- Star parties are at Crestview on the 2nd, 9th, and 30th.
- Jazz Under the Stars is at CSM on the 16th.

- courtesy of Ron Cardinale

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## Fundraising for the Group: SMCAS Participates in AmazonSmile and Receives a Percentage of Your Purchase

SMCAS is now enrolled in AmazonSmile, a program that enables certified 501(c)(3) non-profit organizations to receive donations from eligible purchases at Amazon.



To enroll in the program, go to [smile.amazon.com](https://smile.amazon.com). On your first visit to this site, you can select a charitable organization – San Mateo County Astronomical Society (SMCAS) – that will receive 0.5% of the purchase price of eligible items on Amazon. How will you know if an item is eligible? Items are clearly and literally marked on the product detail pages with “Eligible for AmazonSmile donation.” For more information, go to [smile.amazon.com/about](https://smile.amazon.com/about).

San Mateo County Astronomical Society Event Calendar						
< April 2016 >						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	31	7:00 PM General Membership Meetin	7:00 PM Crestview Star Party  Sunset: 7:35 PM
3	4	5	6	7 	7:30 PM Art and Science Presentat	7:00 PM Crestview Star Party  Sunset: 7:41 PM
10	11	12	13	14 	15	16  Sunset: 7:47 PM
17	18	19	20	21	22 	23  Sunset: 7:54 PM
24	25	26	27	28	29	7:00 PM Crestview Star Party  Sunset: 8:01 PM 

San Mateo County Astronomical Society Event Calendar from the Night Sky Network.

*Calendar courtesy of Ed Pieret*

**Solar System, continued from p. 6**

evening apparition in 2016.

Venus and Uranus are at or near superior conjunction in April. Neptune is now in the eastern morning sky but is not favorably positioned. Jupiter continues large and bright in the evenings, reaching the meridian at increasingly convenient hours for evening observers as the month goes on. Mars and Saturn are approaching opposition on May 22 and June 3, continuing to present a striking sight together near Antares.

Mars will brighten dramatically to magnitude  $-1.4$  and increase to 16 arcseconds apparent diameter by the end of April. This will be the best opposition for Mars in over 10 years, with a couple even better ones coming up in 2018 and 2020.

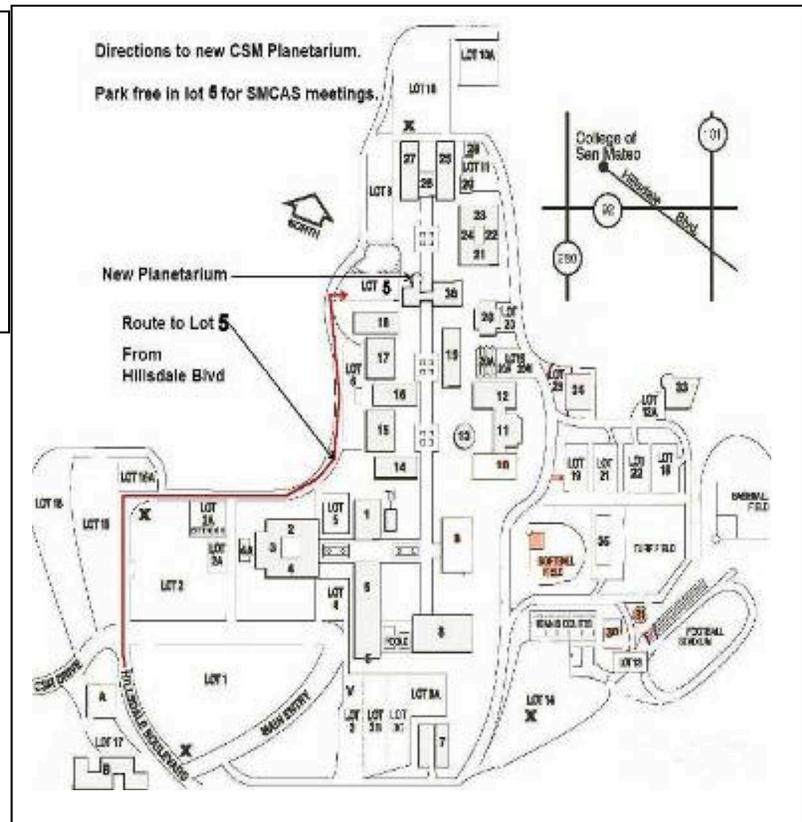
The Lyrid meteor shower peaks on the night of April 21–22. It is expected to be a weak shower, possibly with a few fireballs. In most years its maximum zenith hourly rate has been about 20. This year it coincides with the full moon.

## Directions to SMCAS Meetings at CSM, and to Star Parties

Star Parties are Free to Members and Visitors and are Held Regularly, Weather Permitting

### Directions to the CSM Planetarium for Meetings

After exiting Hwy 92 at Hillsdale Blvd, climb the hill towards CSM, passing two traffic lights to the stop sign at the top. Continue straight, bear right then, after the 2nd stop sign, bear left over the rise. Enter the next parking lot on the right, called Lot 5, "Marie Curie". Science Bldg 36 and the planetarium lie straight ahead. Enter Bldg. 36 thru the door facing the lot, or walk around the dome to the courtyard entrance.



## Crestview Park

Come on out, and bring the kids, for a mind-blowing 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. Only visitors with telescopes should drive in. Others should park on the street and walk in, or arrive before dark so that car headlights don't affect the observers' dark adaptation. Bring small flash-lights only, covered with red cellophane or red balloon.

These measures avoid safety issues of maneuvering in the dark, as well as ruining the night vision of the viewers.

Please don't touch a telescope without permission. And, parents, please don't let children run around in the dark.

### Directions to Crestview Park for Star Parties

**From Hwy 101 or El Camino**, take Brittan Avenue in San Carlos, west (to the hills). Follow Brittan 2.3 miles (from El Camino) to Crestview Drive. Turn right on Crestview. In half-a-block, you will see a small blue posted sign with an arrow, indicating the entry road into Crestview Park. It lies between houses with addresses #998 and #1000 Crestview Drive.

**From Highway 280**, take Edgewood Road exit. Go east (toward the Bay) about 0.8 miles. Turn left at Crestview Drive. Go 0.5 mile uphill to where Crestview meets Brittan. Again, drive the half-block, to the sign on the right, and the entry road on the left.

**Note:** If bringing a telescope and arriving after dark, please enter the Park with your headlamps and white interior lights off. If you aren't bringing a telescope, whether before or after dark, please park along Crestview Drive, and walk in.

**2nd Note:** Crestview Park is residential, adjacent to homes and backyards. Before inviting potentially noisy groups, please call Ed Pieret at (650) 595-3691 for advice and advisories. Call Ed also to check the weather and 'sky clock', and to see whether the star party is still scheduled.

## Membership Application and Society Information

To join the San Mateo County Astronomical Society or to renew membership, you can pay dues via Pay Pal on our website ([www.smcasastro.com](http://www.smcasastro.com)), at any monthly meeting, or send your check, payable to SMCAS, to: SMCAS, PO Box 974, Station A, San Mateo, CA, 94403.

Dues are currently \$30 for a new (family) membership and renewing member and \$15 for a student membership.

Please check one of the following boxes: ( ) New member ( ) Membership renewal ( ) Student ( ) Address or info change

**NOTE TO RENEWING MEMBERS:** Please complete the following form only if you have a change to your membership or contact info.

Name(s) \_\_\_\_\_

Address/City/Zip: \_\_\_\_\_

Phone(s) \_\_\_\_\_ Email \_\_\_\_\_

### SMCAS – Society Information

**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, 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, to the first stop sign at the top of the hill. Continue straight, bearing right then, after the second stop sign, left up over a rise. After the third stop sign, enter the first parking lot on the right with a sign 'Lot 5, Marie Curie', identifying the top level plus those below.

Science Bldg. 36 adjoins the lot, with the geodesic planetarium dome to its left. Circle the planetarium, or enter Bldg 36 thru the door facing Lot 5. For the 4<sup>th</sup> floor observatory, use the elevator just inside on the right. The planetarium corridor is ahead on the left. Turn left at the restroom sign.

**Officers: President:** Marion Weiler; **Vice-President:** Ed Pieret; **Treasurer:** Karen Boyer; **Secretary:** Andy Thanos. **Board Directors-At-Large:** Bob Franklin, Ken Lum, Ed Ching, and Mike Ryan.

**April Event Horizon Editor:** Ted Jones. **NOTE:** Newsletter is posted by the beginning of each month (except for July and August). Submissions and photos are welcome by the 15th of the month before publication.

### SMCAS Contact Information

**Website:** [www.smcas.net](http://www.smcas.net)

The CSM Astronomy Department schedule is at [www.collegeofsanmateo.edu/astronomy/events](http://www.collegeofsanmateo.edu/astronomy/events).

**Email:** [SMCAS@live.com](mailto:SMCAS@live.com)

**Society Yahoo group:** <http://groups.yahoo.com/group/smcas>.

**Yahoo Group Subscription:** email [smcas-subscribe@yahogroups.com](mailto:smcas-subscribe@yahogroups.com) to subscribe.

**Event Horizon:** To submit articles or photos, please contact Ed Pieret — [epieret@comcast.net](mailto:epieret@comcast.net) or 650.862.9602.