

Prime Focus September 2001

TVS Presents

What: Volcanic Activity on Io and Oceans (?) on Titan as observed at Keck.

Where: Unitarian Universalist Church, 1893 N. Vasco Rd,
Livermore Ca

When: September 14, 2001 Room set-up and
conversation at 7 PM Meeting begins at 7:30 PM

Who: Imke de Pater
Professor of Astronomy
Professor of Earth and Planetary Science
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University of California
Berkeley CA 94720
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Imke de Pater

Using the newly implemented adaptive optics system on the 10-m Keck telescope in Hawaii we observe planets and satellites in our Solar system. We observe these bodies at infrared wavelengths. The images are very sharp, and are directly comparable with images obtained at visible wavelengths with the Hubble Space telescope (Keck images are 4 times better than HST images at infrared wavelengths). After a short introduction on what is adaptive optics, I will talk about and show images of Titan and Io, and if time allows of Neptune and Uranus. What is Titan's surface like; are there oceans of hydrocarbons? Volcanism on Io: we have captured a truly large volcanic outburst during our observing run in February 2001. Neptune's atmosphere seems to be very dynamic, in particular in contrast to Uranus where only a few small clouds can be discerned.

Description of the loaner scope program.

Hi, I'm **John Swenson, your new loaner scope program director**. I hear many of you are not aware of what scopes and accessories we have available for rent, so I thought I'd give a quick rundown on what we have and a little info on each item. In further articles I'll give a more in depth review of each item.

Here is the list:

10" dobsonians: we have three of these. They are easy to use and a big enough aperture to see a LOT of objects. Fairly heavy when lifted in one piece, but not too bad when taken apart. They take a long time to cool down to really get good high power images. These are great for viewing galaxies, nebulas and other "Deep Space Objects" (DSOs), but not necessarily the best instrument for planetary viewing. One of these has a Digital Setting Circle (I don't have room to go into that here, I'll cover it later).



8" SCT: This is a Schmidt Casagranian Telescope (SCT), we have two, a Celestron (orange tube) and a Criterion. They both come with a tripod, equatorial wedge and AC drive motor for tracking. One has an inverter to run the drive off a battery. We also have a separate crystal controlled driver controller which would work well with either of these. These are good all around scopes, they have a big enough aperture to see many DSOs, plus a long focal length which makes high power planetary viewing easy, and they can track the sky which is very helpful at high powers. Because of the design they are physically quite small for the aperture and focal length, but fairly heavy.

75 mm F16 Unitron refractor: This is a long focal length achromatic refractor on an equatorial mount and tripod. Its great for planetary or lunar viewing, but the aperture is kind of small for most DSO work. The mount and tripod are very sturdy. I like putting a solar filter on it and using it to see the sun.

6" Newtonian on an equatorial mount: this little scope has not been used much, its in need of cleaning and alignment. Its kind of a good all around scope, big enough to see a lot, works well on planets, will track (needs inverter for battery use) and much lighter weight than many of our other scopes. The small mirror and open tube will cool down much faster than the other reflectors we have, so its quite a good "pick up and go" scope, you can take it outside and by the time you are getting dark adapted its ready to go.

8x56 Celestron binocular: a very nice pair of binoculars. If you are new to the obsession (er, hobby) of astronomy this is a nice way to learn your way around the sky. Its MUCH easier to get started with a low power binocular than a high power telescope, and its much more portable!

Nagler 31 mm type 5 eyepiece: this is the BIG one! The EP gives you a very wide razor sharp low magnification view, looking at the summer milky way with this is an amazing experience. You do need a 2" focuser to use this. It will fit on one of our 10" dobs.

A set of color filters: these are good for planetary viewing by changing the contrast to various different colors.

SPECIAL OFFER: If anyone is willing to clean and align the 6" newt you can rent it for free!

Each scope rental is \$15 per month with a \$50 deposit (its best to have 2 checks, one for \$50 that gets returned and one for \$15 that doesn't). If you bring the scope to a star party its free! See me at any of the meeting to rent a scope or ask questions.



NASA Science News for August 24, 2001

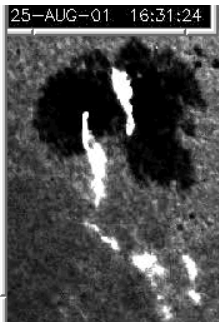
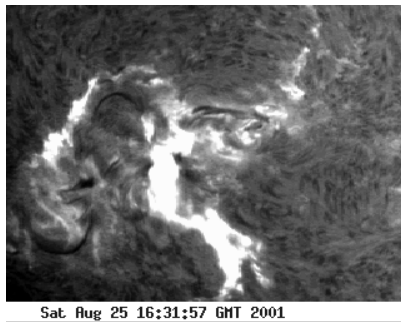
Last weekend an amateur astronomer found a new comet the old-fashioned way. Without the aid of computers or digital cameras, he simply looked through his telescope and there it was! You can see the newfound Comet Petriew for yourself in the morning sky gliding between the constellations Taurus and Gemini.

Vance poses with his 8 month old daughter Emily and the 20" Obsession telescope he used to spot the new comet.

See the full story at the following web link;

http://science.nasa.gov/headlines/y2001/ast24aug_1.htm?list460638

White Light Solar Flare August 25 2001



Left is a solar flare image from EOTS compared to what you would see using a white light scopes, image from solnet@yahogroups.com.

Notice this solar flare would have been observable to anyone who was watching. More info on this other earth encounters and solar events can be found at

<http://spaceweather.com/>

H2O observing site "potty problem" has been cleaned up thanks to vice president Gary Steinhour who hired the land owners to help with the clean up. Many others TVS member helped get the job done. Thanks go out to all who helped.

Many thanks to Alane Alcorn; for the distinguished career as the club news letter editor for at least 10 yr ++. Your dedication, style and leadership on this club function will be missed.

BOARD OF DIRECTORS MEETING: is held at the Pizza Fresh Pizza (925) 443-7374

1024 E Stanley Blvd; Livermore, CA at 7-9 PM the following Monday night after the general meeting. Anyone interested in the clubs event planning is invited to attend.

STAR PARTIES AND EVENTS:

We need a list, please.

Newsletter deadlines; days before the next general meeting:

Submit articles/info: 11 days, email to rushford@eyes-on-the-skies.org.

Printing: 10 days

Folding and labeling Party: 9 days

Mailing: The newsletter is scheduled to be in the mail at least one week prior to the next General Meeting.

Currently we have no **program director**. If you have a program idea let a board member know and we will put it into the que. You might like to team up with another person and tell us about your project(s).

Tri-Valley Stargazers

P.O. Box 2476

Livermore, CA 94551

Membership: 231

Web site; [HTTP://www.trivalleystargazers.org](http://www.trivalleystargazers.org) E-MAIL; tvst@trivalleystargazers.org

Meeting Location; Unitarian Universalist Church, 1893 M. Vasco Rd. Livermore Ca. Is 3/4 mile north of I-580.

President, Web-admin, Observatory Director Chuck Grant charleswgrant@home.net 925-422-7278

Vice-President Gary Steinhour <garyjane@jps.net>

Secretary Marilyn Malberg

Treasurer Mike Anderson <anderson@prodigy.net>

Librarian Jim Alves <jim_alves_engr@yahoo.com> 925-634-6220

HTTP://Eyes-on-the-Skies.org (EOTS) Robotics solar telescope and “- acting as -” News letter editor

Mike Rushford <rushford@eyes-on-the-skies.org>

Directors; Alane Alchorn, Jim Alves, Dave Anderson, Dennis Beckley, Paul Caswell, Rich Combs, Debbie Dyke, Gert Gottschalk, Kathleen Kelley, Signe McDetire, Dave Rodrigues, Frank Rogue, Mike Rushford, Debbie Scherrer, Al stern, John Swenson, Norm Thomas, Phil Waide.

TriValleyStargazer.org Mission Statement:

We are a resource for anyone interested in astronomy. It is our mission to nurture a person's natural curiosity about the night sky and the tools for observing. We host social events so to share the knowledge and understanding of astronomy. Through our public activities and public evening observing sessions, we bring astronomy to persons of all ages. Our regular meetings and observing sessions offer members a forum to meet others with similar interests and experiences and to learn from one another.

Tri-Valley Stargazers Membership/Renewal Application

Member agree to hold Tri-Valley Stargazers, and any cooperating organizations or landowners, harmless from all claims of liability for any injury or loss sustained at a TVS function.

Name _____

Phone _____

E-mail _____

Address _____

Notify me by e-mail when Prime Focus is available on the Web.

Do Not mail Prime Focus to me since I can read it on the web.

Post my:

Photo, Address, Phone, or e-mail information on the TVS web site.

Membership category:

Individual \$20 : Individual Patron (requires one year previous membership) \$60

Family \$25 : Family Patron (requires one year previous membership) \$65

Hidden Hill Obs. Refundable **key deposit** (TVS property) \$20

Tax deductible contribution;

to TVS \$ _____

Sky & Telescope (\$29.95/yr)

and/or

Astronomy (\$29/yr) \$ _____

Total. \$ _____

Return to:

Tri-Valley Stargazers, P.O. Box
2476, Livermore, CA 94551

Membership information: Term in one calendar year, January through December. Students members must be less than 18 years old, or still in school. *Patron membership (\$40) is in addition to a family or individual membership, and requires a year of previous membership in good standing and approval by the board of directors.

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