



The Refractor

The Bulletin of the Eastbay Astronomical Society
 Founded in 1924 at Chabot Observatory, Oakland, California

Volume 87
 Number 01

November 2010

November EAS Lecture Meeting

Title: **From Meters to Millimeters:
 Radio Astronomy at UC Berkeley**

Speakers: **Chat Hull**
UC Berkeley, Department of Astronomy

When: November 27, 7:30pm
 Location: Physics Lab, 2nd Floor, Dellums
 Building, Chabot Space & Science Center

In this talk I'll start by giving a brief description of radio astronomy as a field, and why so many of us here at Berkeley are so excited about it. I'll give an overview of the several radio telescopes that UC

Chat Hull is a third-year graduate student in the UC Berkeley Department of Astronomy. He hails from Penn Yan, NY, a small town about an hour south of Rochester, in the western part of the state. In 2006, he graduated from the University of Virginia with a B.S. in physics, after which point he taught for two years in two different high schools: first at an all-male boarding high school in central Virginia (which he also attended), teaching AP and freshman physics; and next at the Centro Comunitario de Educacion Yinhatil Nab'en, a middle



and high school in the Mayan highland town of San Mateo Ixtatan, Guatemala, where he taught math, physics, and music. In 2008 he moved out to Berkeley to begin his graduate studies, and in the intervening time has taken great pleasure in joining UC Berkeley's vibrant radio astronomy community, where he has begun learning the ins and outs of radio astronomy theory and instrumentation. In his free time he enjoys cycling, playing volleyball, and singing classical and jazz music. Though, regarding the latter, admittedly

he generally chooses to be lazy and just pays to see the professionals do their thing at such rarefied venues as the San Francisco Symphony and Yoshi's in Oakland.



Berkeley astronomers are actively using to study topics ranging from hydrogen in the early Universe, to transient radio events in our own Galaxy, to dusty protostellar disks and jets in our Solar neighborhood. I'll then highlight where the work I've done over the last two years fits into the picture by describing my telescope-calibration work on the Allen Telescope Array (ATA) near Redding, CA, as well as my current efforts to implement a dual-polarization receiver system on the telescopes at CARMA, a millimeter-wavelength radio telescope in the Eastern Sierras near Bishop, CA.

DINNER WITH THE SPEAKER

5:30, Sat, Nov.27

Hunan Yuan

4100 Redwood Rd.

(next to Safeway)

No need to confirm,

Just show up!

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EAS Loaner Scope Program has telescopes available for rental by EAS members. Scopes include 60mm and 80mm refractors, a C-90, two 10 inch Dobsonians, and ; 4 and 8 inch Schmidt-Cassegrains. Scope rental is \$15 a month, with a \$50 deposit. For information, contact Ray Wong by E-mail at qm7@yahoo.com

EAS Membership Renewal Time

That time of year is upon us once more. Included in this newsletter is a snail-mail membership renewal form. A quicker and easier way to renew is visit the EAS membership renewal page on-line at:

<http://www.eastbayastro.org/index/application.htm>

Annual dues: \$24 regular membership \$10 students



WANTED: PHOTOS OF OLD CHABOT

Do you have photographs of the Mountain Boulevard Chabot Observatory? If you do, pick out the best of the best and send a scanned image to the Newsletter editor. A new image will be posted in the newsletter each month.

FUTURE CONJUNCTIONS—2010

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 11 Board Meeting, Chabot, Soda Board Rm, 7:30pm
 14 EAS MOVN
 Dec 12 EAS MOVN
 09 Board Meeting, Chabot, Soda Board Rm, 7:30pm
 EAS Holiday Party To Be Announced

For questions or if you are uncertain about the weather, call (925)926-0853 before 6pm, or check Chabot's weather page at <http://www.chabotspace.org/forms/weather.aspx>



Reverse dumpster diving.....

Yup, all that stuff came out of Rachel's basement, and that is after a truck load of stuff had already either been given away or hauled off.

Want Ad: Will work for telescopes!

Have a basement that needs to be cleared out, a garage needing cleaning? No job too big or small. Experienced crew of seven have truck and dumpster, will travel. Contact Don or Barry at **DUMpster 4-5673**.

EAS Library: Hours, 3:00pm - 7:00pm every Friday, and immediately after monthly EAS lecture meetings. The library is located on the second floor of the Del-lums Building, down the hall next to the interactive lunar lander exhibit.

Volunteer librarians are needed to expand library hours. **We are particularly interested in any member having experience with book cataloging software.** If you'd like to help contact EAS president Barry Leska at b.leska@comcast.net

Chabot Space & Science Center Invites EAS Members to Volunteer with Us!

- Share your knowledge of and passion for astronomy with thousands of CSSC visitors
- Experience the unique opportunity to operate Chabot's historical telescopes
- Share your own telescope at Chabot*
- Inspire young astronomers and future scientists by assisting students in our astronomy education programs

Explore these opportunities at our next Volunteer Orientation!

For upcoming orientation dates, or for more information, please contact us at: volunteers@chabotspace.org or, call our Volunteer Manager Megan Gray at (510) 336-7414

**EAS members who are only interested in sharing their own telescope at Chabot are required to attend a Chabot volunteer orientation and complete a self-guided training worksheet entitled "Getting to know Chabot." After completion, you may join us on deck and share your own telescope any Friday or Saturday night!*

***Full Chabot Volunteers must make the regular volunteer commitment and pursue official placement through the Volunteer Manager.*

News & Views



Howdy Astro Fans!

I'm back! Actually, I've been back for about a year, now, but I'm to a place in Life where I can start contributing to the newsletter, again. My main function with this column will be to keep you apprised of current events with the club and Chabot, so let's get to it, shall we?

We've been busy (as usual). Last month, the board approved the purchase of a computer projector after we experienced problems gaining access to our usual projector providers. The model is an Epson Powerlite 1220 which lists for \$650, but our Treasurer Richard Ozer was able to get it without shipping charges by purchasing it through his company. It's a nice projector, and we'll always have access to it. How nice!

(I'm doing a bit of catch-up, here.) A few months ago, I was doing my usual volunteer telescope operations, and realized that the 36" reflector telescope, Nellie, only had one eyepiece. I thought it would be nice if the EAS donated a few more eyepieces and accessories to Chabot for Nellie. Thanks to our former and now deceased president Carter Roberts' endowments to the club, we are, not to put it delicately, RICH!



Anyways, the proposal got batted around a bit, and we finally decided to do it. So, we bought two Televue Panoptic Eyepieces (a 19mm and 24mm focal length 1.25 inch), a Televue 1.25" 2x Barlow, and a Lumicon 1.25" Oxygen III filter, and gave them to Chabot.

Back in late September, Director of the TMW Richard Ozer organized and held a work party to clean out the space under Rachel's dome. Whew! We went from 10am to 3pm, moving out huge print drum dryers, buckets and buckets of pitch from prehistoric times, old telescope parts, and piles of miscellaneous

Junk. Richard ordered up a certain sized dumpster, and he just nailed it - we filled that dumpster perfectly, and Barry used his truck to help us move everything from the storage space to the dumpster. The Intrepid Seven, photo on page 4, from left to right: Richard Ozer, Rebecca Malamud Ozer, Don Saito, Inge Fine, Kristine Rogers, Gert Gottschalk, and Barry Leska. Good job, people!

Cheerios! <crunch, crunch!>
;~Don



Nellie sports two new finder/guidescopes.



The Intrepid Seven : Junk movers extraordinaire from left to right: Richard Ozer, Rebecca Malamud Ozer, Don Saito, Inge Fine, Kristine Rogers, Gert Gottschalk, and Barry Leska.

EAS Elected Officers Candidates

The Eastbay Astronomical Society (EAS) has described its purpose as "to increase our own appreciation of space, to promote the space sciences to the public, to support the Chabot Space & Science Center, and to have as much fun as possible doing it". These words help to guide EAS in decisions regarding its activities

The astronomy interest of our members has a wide range. EAS leads activities in nighttime observing, daytime solar programs, school and group outreach, and telescope making activities, as well as the popular astrophysics lectures. The strength of our organization is directly proportional to the participation level of our members and the sharing of our unique knowledge with each other.

The election nominating committee of the Board of Directors is seeking candidates that would like to actively participate on the EAS Board. At the Janu-

ary 22, 2011 EAS general meeting, the membership will elect officers (President, Vice President, Treasurer, and Secretary) for a one-year period. At the Board meeting following the election, the Board of Directors will review the appointed Directors and their roles.

If you would like to run for one of the elected position, or if you would like to be considered for one of the appointed positions, please contact:

Don Saito (donsaito@comcast.net),
Rollen Maski (rmaski@pacbell.net)

or

Barry Leska (b.leska@comcast.net)

before December 31, 2010.

EASTBAY ASTRONOMICAL SOCIETY MEMBERSHIP APPLICATION FORM

New Renewal (Just print this page, fill it out, and mail it in!)

NAME: (please print) _____

ADDRESS: _____

CITY, STATE, ZIP _____

DAY PHONE: (____) _____

EVE PHONE: (____) _____

EMAIL ADDRESS: (please print very legibly!) _____

MEMBERSHIP CATEGORIES:

Regular \$24 Family \$36 Contributing \$40

Sustaining \$60 or more \$ _____ Student \$10 (digital newsletter only)

Optional discounted 12-month magazine subscriptions:

Note: Discounted magazine subscriptions are now handled directly with the publishers. You will need to be entered into our database as a current member before you can claim such discounts.

To take advantage of your discount, log into your EAS Night Sky Network account (new members should wait up to two weeks for their email invitation), click on "Links", and then select "New and Renewal subscriptions." From there you can choose the magazine of your choice.

Optional, tax deductible donation(s) to any of the projects of the Eastbay Astronomical Society:
Burns Library \$ _____ Betty Neall Youth Award Fund \$ _____ General \$ _____ Other: _____ \$ _____

EAS Lapel Pin \$3.00 +\$1.00 per pin for shipping and handling. # of pins _____

Total Amount for # of pins \$ _____

(Tip: If you buy them at a club meeting or event, you can avoid the S&H fee.)

Total Enclosed: \$ _____

Please mail this form and your check or money order payable to:

Eastbay Astronomical Society

PO Box 18635

Oakland, CA 94619-0635

For more information, please contact club Treasurer Richard Ozer at (510) 406-1914, rozer@pacbell.net, or write him at the address, above.

By default, (if you have an email address) you will be notified by email that the digital (.pdf) version of the club newsletter is ready to download off the club website. If you prefer to get the B&W hard copy, please check the box below:

I prefer the hard copy mailed to the address entered above.

And,

Are you interested in volunteering your time/equipment for public stargazing at Chabot?

Are you interested in doing other volunteer work for Chabot and/or the Eastbay Astronomical Society?

THANK YOU FOR JOINING US!



Eastbay Astronomical Society

At Chabot Space & Science Center
10000 Skyline Boulevard • Oakland, CA 94619

November 2010
RETURN SERVICE REQUESTED

Eastbay Astronomical Society

President: Barry Leska b.leska@comcast.net

Treas: Richard Ozer (510) 532-5477 rozer@pacbell.net

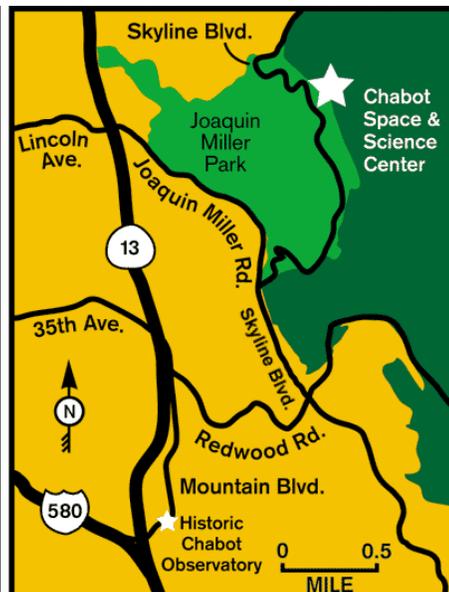
Secretary: Linda Lazzaretti (510) 633-2488

Articles and photos for *The Refractor* are encouraged. Deadline for the Dec. 2010 issue is Dec. 10, 2010. Items may be submitted by snail-mail or E-mail to: Editor - Jim Ferreira, 753 Oriole Avenue, Livermore CA 94551 bakerst@comcast.net (925) 449-0107

Vice President: Ray Wong (510) 796-5748 qm7@yahoo.com

Membership Reg: Bruce Skelly EastbayAstro@gmail.com

Events Coord: Dave Rodrigues (510) 483-9191



FUTURE CONJUNCTIONS

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 14 EAS MOVN*, 7pm-10pm, Wightman Plaza
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 EAS Holiday Party to be announced

Join the Eastbay Astronomical Society

- Regular, \$24/year
- Family, \$36/year
- Contributing, \$40/year
- Student, \$15/year (digital news-letter, only)
- Sustaining, \$60/year or more

Contact: Gerald McKeegan, EAS Treasurer
 Tele: (925) 926-0853 Email: geraldspace@earthlink.net
 Mail: 1760 1st Ave, Walnut Creek, CA 94597-2561

Sign up online at <http://www.eastbayastro.org/>