



STAR FIELDS

NEWSLETTER OF THE AMATEUR
TELESCOPE MAKERS OF BOSTON

Vol. 5, No. 4

April 1994

April ~~Our~~ March Meeting...

Thursday, April, 14, 1994
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

This month's speaker is Brian Schmidt, a CFA Post-doctoral Fellow. Brian's talk is titled "Measuring Extragalactic Distances with Supernovae". Supernovae are among the most luminous events in the Universe, making them attractive objects to use to measure extragalactic distances. Several groups are actively working on a host of distance methods involving different types of supernovae. Type Ia Supernovae have long been promoted as being objects of standard luminosity, and their intrinsic brightness has recently been calibrated using the Hubble Space Telescope. The Expanding Photosphere Method, which provides distances to Type II Supernovae based on atmospheric models of these objects, has been developed. He will discuss the progress of these two methods and the steps being made with them to measure the expansion rate of the Universe, H_0 , and its rate of deceleration, Q_0 .

Please join us at a pre-meeting dinner at the Changsho Restaurant, 1712 Mass. Avenue, Cambridge. Please meet at the restaurant by 6:00 pm.

March Meeting Highlights...

About fifty members and guests attended our March Show and Tell meeting. Mario Motta gave the secretary's report in the absence of Steve Beckwith. Tony Costanzo presented the Treasurer's report and announced that members have contributed \$1300 over the past year. He also introduced a new form members must use to get reimbursed for club expenses. The clubhouse report was given by Ed Dougherty. The president motioned for a vote on the increase in dues to \$25 and the half-dues elective for students and senior citizens. The motion was passed by the membership.

Bernie Volz announced that *CCD Astronomy* will be available as part of our membership. He and Mario presented the possibility of a planned ATMoB trip to Aruba to observe the eclipse of February, 1998.

Ted Poulos got approval to raise funds for the club by selling ATMoB T-shirts, sweatshirts and caps at our meetings.

The Show and Tell section of the meeting included: Dick Koolish presenting background information on the May 10, 1994 solar eclipse and Ed Dougherty showing spectacular videos he made from computer software simulations of the eclipse and the Shoemaker/Levy-Jupiter encounter. Observing this impact was the subject of Mike Mattei's and Eric Johannson's presentation. Kevin McCarthy demonstrated his marvelous DTP (Desk Top Polishing) machine that is remarkably compact and portable, yet can handle up to 23-inch diameter mirrors. Finally, Gary Walker showed a CCD image of the section of the Horsehead nebula called the Wales Tail not normally seen in the usual photos.

Special thanks to Mario Motta for reading the meeting minutes and especially Ted Poulos for taking detailed minutes of the March meeting.

President's Message...

At this month's meeting, the membership will vote on a nominating committee (choosing 3 names from 6). The nominating committee will determine next year's slate of officers that they will announce at the May meeting. The membership will elect the officers at our annual meeting, in June.

If you're interested in serving on the Executive Board, contact me or one of the nominating committee members (once chosen).

We are in need of someone to volunteer to be the membership secretary! John Samolyk has announced his intention not to fill that position next year.

Tanguay Donates Telescopes...

Ronald Tanguay, ATMoB member and editor/publisher of the *Double Star Observer*, has donated several telescopes to the ATMoB. Ed Dougherty reports, an 8" F/20 Dall-Kirkham and two refracting (4" f/15 and 3" f/11) telescopes given to the club by Ron will be kept at the clubhouse.

A heavy duty German equatorial mount, five eyepieces, two diagonals, a barlow lens, a 2" f/12 guide scope and 40mm Unitron finder were also donated.

The Dall-Kirkham will be permanently mounted and the refractors will be available for use by experienced observers.

The *Double Star Observer*, a quarterly publication edited and published by Ron, was started in 1990. It's

Telescope Loaner Program

THE CLUB has several loaner telescopes available for members! The telescopes come with eyepieces and a hands-on instruction session, if requested. Please contact Ed Dougherty to take advantage of this great offer. A \$5 donation to the club (for upkeep of the scopes) is suggested.

articles cover various double star topics ranging from basic to advanced double star observational and computation techniques. It's world wide distribution is read by both amateur and professional astronomers alike. A subscription of the *Double Star Observer* also donated to the ATMoB, will be kept at the clubhouse. Subscription rates are \$6.00/year, \$11.00/2-years or \$14.00/3-years and can be obtained by sending a check to Ron at 306 Reynolds Drive, Sagaus., MA. 01906-153. (617-231-1558) Thank you Ron for your generosity.

ATMoB Activities...

THE LYNNFIELD Elementary School fifth graders were treated to a star party by the ATMoB on April 4th. Approximately 100 students and parents listened to an eclipse talk by Dick Koolish then trooped outside for an evening of observing deep sky objects and double stars. Mario Motta coordinated the event, which netted the club a \$200 donation from the NASA funded, "Partners in Astronomy" educational program. Special thanks to volunteers Mario Motta, Bernie Volz, Tal Mentall, Dick Koolish, Ed Los, Bob Collara and Steve Beckwith.

STAR PARTY volunteers are needed at the Museum of Science on Friday, May 20th. The ATMoB's has been working with the museum to do a program for young kids and their parents. This program will consist of a special planetarium program followed by a star party. Please help out! We'd like about 10-12 telescopes, each assigned a specific object to observe.

Note that all those planning to attend will be invited to a "leading a public program" training session offered by the museum. A date for the training has not been set; it will be the last week of April.

I'M STILL in need of a volunteer to do a one hour observing training session for camp directors and counselors at the Super Staff Day of the American Camping Association on Saturday, June 4th. Please call me. - Bernie Volz

ATMOB CCD workshop has gotten off the ground with twelve members expressing interest in building the Richard Berry camera (of course, others are still welcome to join in). At the moment, we are at the tough stage of

sending money to order the necessary parts. Bernie Volz has ordered the TC245 CCD chips for those who have sent him a check to cover the cost. When Berry's book is published and we have a complete parts list, we'll make a group buy of the electronic components and then plan assembly sessions for those who want to build their cameras with others.
- Ted Poulos

ASTRONOMY DAY, Saturday, April 16th. Please plan to help out during this year's Astronomy Day activities at the Boston Museum of Science. We need speakers, members to man the club's booth during the day, and to help out with star party in the evening. Contact John Reed for more details (617-861-8031).

Keep Looking Up...

TEMPEL 1, a 10th magnitude comet, is located in Virgo this month and can be found at the coordinates listed below.

April 11 - R.A. 13^h18.4^m, DEC +12^d45^m
April 16 - R.A. 13^h22.5^m, DEC +12^d36^m
April 21 - R.A. 13^h09.9^m, DEC +12^d15^m
April 26 - R.A. 13^h06.0^m, DEC +11^d41^m
May 1 - R.A. 13^h02.6^m, DEC +10^d55^m

LYRID METEOR shower peaks April 22nd, three days before the full moon.

Announcements...

ATMOB APPAREL in the form of T-shirts, sweat-shirts and caps imprinted with our logo will be available at our meetings, occasionally at the clubhouse and by mail (postage extra). All proceeds go to the ATMoB. We offer yellow T-shirts with a blue logo for \$10, gray sweat-shirts/blue logo for \$20 and blue and white caps with a blue logo for \$6.
- Ted Poulos

DAVID EMERSON is convalescing at the Spaulding Rehabilitation Hospital. He is walking and talking some, eating regular food and enjoying TV and visitors. He will appreciate and be helped by any time members can share with him. The Spaulding Hospital is located at 125 Nashua Street, Boston. David can be visited in his room (601) from 1PM to 8PM M-F, and 11AM to 8PM Weekends. He can be reached by phone (617-589-4560) 7:30AM~8:30PM.

A DAY time meteor was observed from Newton at 12:01PM on March 26th by ATMoB member Joseph Rothchild. He observed the meteor within ten degrees of the Southwest horizon as he was driving with his daughter in Newton center. The meteor was visible for one-half second and the brightness was "about the same as Venus in

twilight". Joe has requested anyone who also observed the meteor to contact him.

AN EXECUTIVE Board Meeting is scheduled for Sunday, April 24th at 7:00PM at Mario Motta's house in Lynnfield, MA. All Executive Board members must attend.

If any member has any issues to be discussed at the board meeting, please contact one of the Executive Board members.

WANT TO experiment with liquid mirrors? See the two articles in the February, 1994 issue of *Scientific American*. The "Amateur Scientist" column describes spinning a dish of epoxy on a phonograph turntable until it hardens. The resultant mirror will have a focal length proportional to the square of the rotation period (41.1cm for 33 RPM). Although precisely parabolic, the mirror's surface may not give diffraction limited images. - Ted Poulos

JOHN DOBSON is being hosted by the Cape Cod Astronomical Society this Summer at a benefit fund raiser for their observatory project. As of this writing, the exact date for the fund raiser has not been set; it will be sometime the first week of June and will be held on the Cape.

Tickets (and more details) will be available at the April meeting for \$4.00 (this is a special price, normal price is \$6.00). If you have any questions or would like to purchase advance tickets (if you won't be at the April meeting), contact Jim Carlson at 508-432-4316.

Note that John Dobson will also be holding telescope making classes for the Cape Cod Astronomical Society. More details should be available at the April meeting.

MANY MEMBERS will be traveling to Gary Walker's place near Plymouth, NH to observe the annular eclipse on Tuesday, May 10th. Gary will provide maps and directions to his place at the meeting. If you are unable to make the meeting, please contact Gary or Bernie Volz for a copy of the map and directions. Please also try to car-pool!

Clubhouse News...

OPTIC CLASSES - Phil Rounseville will be holding optics classes once a month on the full-moon weekends at the clubhouse starting at 6:00 PM. There will be a series of three classes: Introduction to Optics, Basic Telescope Design, and Advanced Compound Systems. If you need more details, please contact Phil at 617-527-1080.

- Phil Rounseville

JUPITER-SHOEMAKER/LEVY - Eric Johansson and Mike Mattei are holding a series of talks and training sessions on visual observations and drawings targeted towards observing the July comet crash. These sessions will be held the first Saturday of the month (April-June) at the Club-

house starting at 5:30 PM. For more details, stop by the clubhouse on the first Saturday of the month.

- Eric Johansson/Mike Mattei

THANKS TO Bob Heller and Ed Dougherty's for their contributions to the clubhouse. Bob Donated a water purifier and Ed a chiller system. Both pieces of equipment will be used on the evaporator. Also, thanks to Eric Johansson the club now has a 80286 based PC with a modem.

ED DOUGHERTY reports the evaporator is in the final tune up stages and the bell jar was successfully put under vacuum last month.

CLUBHOUSE SCHEDULE

April 9: Fill, Clougherty, Beckley, Bruckner
April 16: Swedlow, Milon, Mock, Rounseville
April 23: Ledford, Johansson, Volz, Chase
April 30: Suslowicz, Bruckner, Heller, Budreau
May 7: Fill, Green, Swedlow, Hopkinson
May 14: Ledford, Clougherty, Beckley, Burrier

Spring and Summer Events...

ASTRONOMY DAY. Saturday, April 16, Boston Museum of Science.

NORTHEAST ASTRONOMY Forum. Saturday, April 16, Holiday Inn (Exit 14B, NY Thruway), Suffern, NY. This third annual event is hosted by The Rockland Astronomy Club and will feature: speakers, door prizes, exhibits and a star party at Lake Sebago, Harriman State Park. For information contact Don Urban (201-768-6575).

NERAL Saturday, May 7th at the Schenectady County Community College (New York). The event is hosted by the Albany Area Amateur Astronomers and will feature John Dobson, Dr. John Delano, Dr. Ralph Alpher, Greg Bohemier, and more.

STARCONN '94. Saturday, April 23, Wesleyan University, Middletown CT. This one-day event begins at 9:00AM and is hosted by The Astronomical Society of Greater Hartford and will feature amateur astronomy evangelist, John Dobson, as this year's key note speaker. Other events include: exhibitors, vendors, swap tables and a star party. For more information, write: STARCONN '94, P.O. Box 2271, Hartford CT. 06145.

BERMUDA '94 Astronomy Cruise. August 28 - September 4. A seven-night cruise featuring three days in Bermuda and hosted by the Rockland Astronomy Club. Fares are as low as \$895. Interested parties should contact Bob Slone (212-741-3300, days) for more information.

For Sale...

WANTED: An equatorial mount for a 3-inch Meade refracting telescope. Please contact Tim Lyster, 617-864-7360 (Days).

Coming Events...

April 4 STAR PARTY at the Lynnfield Middle School. Mario Motta 617-334-3648.

April 8 VARIABLE STAR OBSERVING evening 9:00 PM - 10:00 PM at the clubhouse.

May 6 VARIABLE STAR OBSERVING evening, 9:30 PM - 10:30 PM at the clubhouse.

April 21 CFA MONTHLY OBSERVING NIGHTS. "Fiery Ring in the Sky: Observing the May 10th Annular Eclipse" by Dick Koolish, Amateur Telescope Makers of Boston. 8:00PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. Call 617-495-7461 for additional information..

EXECUTIVE BOARD 1993-94

PRESIDENT:	Bernard Volz	508-881-3614
VICE PRESIDENT:	Mario Motta	617-334-3648
SECRETARY:	Steve Beckwith	508-779-5227
MEMBERSHIP:	John Samolyk	617-391-9290
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	Anna Hillier	617-861-8338
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PAST PRESIDENTS: 1990-92 Marion Hochuli
1987-89 Gary Walker

COMMITTEES

OBSERVING: Edward Dougherty 508-458-8857

Amateur Telescope Makers of Boston

MAY STAR FIELDS DEADLINE

April 30th, is the deadline for items to be included in the March issue of *Star Fields*. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740 508-779-5227

How to Find Us...

MEETINGS: Held the second Thursday of each month (September to July) at 8:00PM in Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge MA.

CLUBHOUSE: The Tom Britton Clubhouse is open every Saturday from mid-afternoon to late evening. It is the white farmhouse on the grounds of MIT's Haystack Observatory in Westford, MA. Take Rt. 3 North from Rt. 128 or Rt. 495 to exit 33 and proceed West on Rt. 40 for five miles. Turn right at the MIT Lincoln Lab, Haystack Observing at the Groton town line. Proceed to the farm house on the left side of the road. Since clubhouse attendance varies with the weather, it is wise to call in advance: 508-692-8708.

FIRST CLASS