

Charlotte Amateur Astronomers Club

www.charlotteastronomers.org

Your Officer Team

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Next Meeting 7:00 p.m.
March 18, 2011

**MEETING LOCATION:
MASONIC HALL
500 NORTH SHARON AMITY
ROAD**

EAT WITH US: Please plan to join us on Jan 21st prior to our meeting. If you care to eat with us ahead of time, several members will gather at The IHOP Restaurant in Cotswold Shopping Center on Sharon Amity Road, just south of our meeting place at 5:30 PM the night of the meeting. Won't you join us this time? We'd love to see you.

This month our meeting presentation will be

"Cosmic Collisions",



A video presentation about how collisions affect the universe. Following the presentation there will be an open discussion session regarding the topics presented.

Special Notice!

UNC Charlotte and the Charlotte Research Institute present a series of public events with Juan Estrada, an Argentine native and Fermilab physicist whose work has earned him the White House's Presidential Early Career Award for Scientists and Engineers. Estrada is currently playing a leading role in the development of the Dark Energy Camera, a major collaborative project aimed at looking further into space -- and further back towards the beginnings of the universe-- than science has yet been able to explore. The results may redefine our understanding of general relativity and of space and time themselves. The Argentine native will be speaking on "Searching the Early Universe for Signs of Dark Energy" on **March 23, at 2 p.m. in the James H. Barnhardt Student Activity Center Salons**. Parking is free in the Cone Visitor Parking Deck (http://facilities.uncc.edu/FileManager/files/Maps/Uncc_Parking_Map.pdf).

Do not miss your chance to be part of an in-depth discussion that promises to engage in some of the largest and most fundamental questions in science and that will ignite your curiosity and hunger for discovery. Please pass this invitation on to anyone interested in looking further into space.

To register go to http://www.charlotteresearchinstitute.com/estrada_lecture and reserve a seat today!

New Members

Kathy O'Byron, Jay Krishnasamay,
Brian Huffing, Nancy Robinson

Observing Activities:

Star Party at GHRO Apr. 2, 2011
weather permitting

Public Outreach

March 25 Star Party @ Fisher Farms.
This is a reschedule of the twice cancelled event From February.

GET LINKED UP!

Please link up with fellow club members by enrolling in the Charlotte Amateur Astronomers Yahoo Group website. The site and enrollment is free. The site allows you to keep up with the activities of fellow club members, post photos and e mails to all group members.

The link is

http://groups.yahoo.com/group/charlotte_astronomers

Hardware Corner

This informal CAAC activity takes place at 6:30 P.M. before our regular monthly meeting. The purpose of this meeting is to make available to all the wide expertise and experience within the club to help with your questions on scope upgrades or modifications, astrophotography, software, or anything astronomy related. Please take advantage of this valuable resource. You've got questions we've got answers.

Observatory Director's Corner

Don't forget the club has loaner telescopes to check out and use for a month at a time. See the Observatory Director Ken Steiner at the meeting or e-mail ken@steiner4.com or call 704-817-8607 to schedule your time with one of the scopes.

Secretary's Notes

Items or announcements from the newsletter? Please e-mail Tom Blevins @ gtblevins@att.net or call me at 704-442-0530. Don't forget to check off your attendance on the members sign in sheet when you pick up your name tag at the meeting. Please notify the Secretary of e-mail address changes or any other changes to your information.

From The Chancellor of the Exchequer: The Financial Report

Beginning Balance - 2/1/11
 \$\$49,139
Receipts - \$27,060.00
February Expenses \$\$629.00
Ending Balance \$75,570

CAAC Dues & Fees

Annual dues are: \$35.00 for a family or individual. Students up to 18 years of age: \$6.00. Annual dues are prorated based on joining date. See the Treasurer for details.

Optional Fees:

Observatory key fee for members: \$10.00 annually.

Observatory pad fee for members with a concrete pad at the Observatory is \$25.00 annually.

Subscriptions

Discounted magazine subscriptions are available through the club at a reduced rate.

Sky & Telescope: \$32.95 per year

Astronomy: \$34.00 per year or \$60.00 for two years.

Please make checks payable to CAAC and give them to Treasurer Scott Holland at meetings or mail them to:

Scott Holland
500 Ethelyn Ave.
Lowell, NC 28098

Club members can also renew their own subscription to Sky & Telescope via mail, or telephone. Members may mail in their renewal notice with payment or telephone using a credit card. Indicate on the renewal notice that you are a member of CAAC. This is for subscription renewal only. The club Treasurer must still process new subscriptions and annually validate a subscriber's membership in CAAC. Subscriptions to Astronomy both new & renewals cannot be renewed directly by the subscriber and must still be processed through the club Treasurer to obtain the club discounted rate.

Sale Bopp Corner

From the telescope collection of Robert Aerial.

Meade 12" LX200 go to Schmidt Cassegrain Telescope with new upgraded electronics package, and new coatings on all the glass surfaces. Also included are a 9X50 right angle finder, are

32MM Televue plossl, 20MM erfle, and 12.5MM Ortosopic Eyepieces. The telescope diagonal will accept 1¼" & 2" eyepieces. Telescope can be powered by either 115V AC or 12V DC battery. 18V DC converter & extension cord included. Operators' manual, getting started instructions & fom shipping box included.

Call Gayle Riggsbee @ 704-846-3136 if interested.

Please contact me via e-mail at gtblevins@att.net with the details of any item you would like to list for sale.

What's Up Now ?

Auriga, Gemini, Orion Canis Major, Puppis, Canis Minor, Hydra, Cancer, Leo, Leo Minor Ursa Major.

Just Checking In

Virgo, Coma Berenices, Canes Venatici

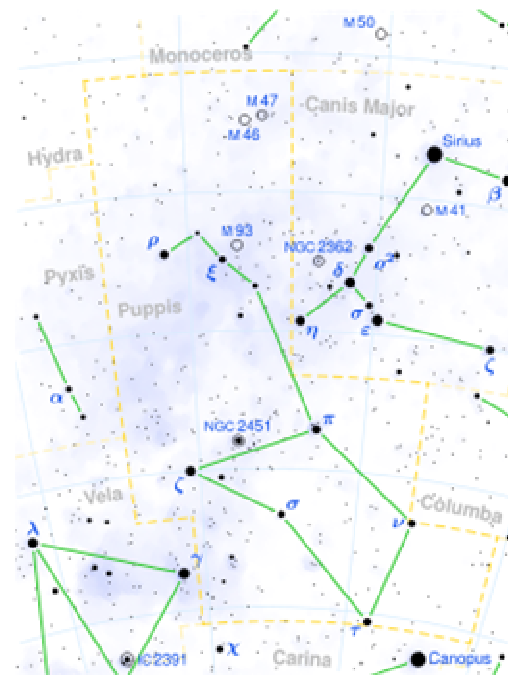
Lunar Highlites

March 12 First Quarter Moon
March 19 Full Moon
March 20- 21 Spica is near the Moon all night long.
March 26th Last quarter.
New Moon March 3.

Constellation of the Month

Puppis the Stern

Puppis is part of the large but now defunct constellation of Argo Navis. This was the vessel that Jason & the Argonauts sailed in to Asia Minor in their quest for the Golden Fleece. Argo Navis was broken up by Nicholas LaCaille in 1752 into three sections, Carina the Keel, Vela The Sail, and Puppis the Poop Deck. Prior to the break up of the constellation Argo Navis was the largest constellation in the sky.



PUPPIS

Constellation of the Month Continued

Binocular Highlight

Easily located centered around 3rd magnitude Pi Puppis Collinder 135 is another of those big splashy open clusters perfect for binocular observers. Find Pi (see the map) and you have found the cluster. The cluster spans about 1 degree of sky and shines at an overall magnitude of 2.1. The bright members of the cluster, Pi, v Puppis, & a magnitude 5 star give the cluster a triangular shape superimposed on about a dozen other stars. Pi Puppis is a K3 Giant about 13 - 14 solar masses and a luminosity of 19,200 suns. The star is a nice orange color in binoculars or telescopes. The star is about 925 light years from earth.

Novice Challenge

Open Clusters M46 & M47

The winter Milky Way flows down through Puppis and contains a treasure trove of beautiful sights. Two of the nicest objects in the constellation are the Messier objects M46 & M47. Both are at

their highest now and easy to observe.

M47 was not discovered by Messier but rather Giovanni Batista Hodierna sometime before 1654. Messier first observed the cluster on Feb. 19th 1771.

The cluster contains between 30 - 50 stars depending on the source you use as a reference. The cluster is about 78 million years in age and is located 1600 light years from earth. The magnitude of the cluster is a very bright 4.5.

About 1 degree east of M47 is the open cluster M46. M46 was discovered by Messier on Feb. 19th 1771 the same night that he rediscovered M47. Interestingly this cluster was also logged by Caroline Herschel as object 3 in her list of discoveries on March 4, 1783. She notes in her observing log that the object is not on Messier's list of objects. This is an interesting conundrum since Messier had logged the object in 1771. What could have caused this discrepancy?

M46 is between 5,400 & 5,500 light years from earth and has a magnitude of 6.1. The cluster contains about 100 stars and has the extra added bonus of having the planetary nebula NGC 2438 superimposed on the face of the cluster. The planetary is not

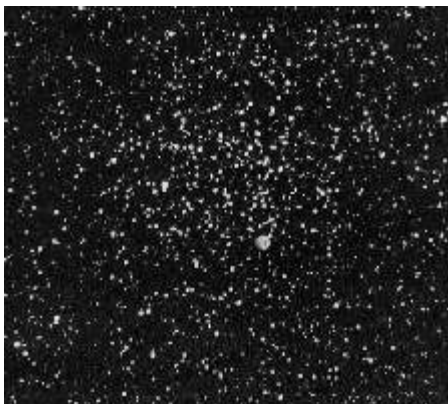
associated with the cluster but is rather a foreground object at a distance of only about 3,000 light years. The nebula is easily picked out in an 8" or larger scope from a dark sky sight.

M47 is located at 7 hrs. 36 min. 6 sec. right ascension, -14 degrees 30 seconds declination.

M46 is 7 hrs. 41 min. 8 sec. right ascension - 14 degrees 49 seconds declination



M47



M46

Deep Sky Challenge

Here is a challenge for all you Planetary Nebula aficionados. NGC 2440 has one of the classic bipolar shapes associated with some types of planetary nebula. The nebula could be considered to have the shape of a cosmic butterfly. The shape is a result of several ejections of the outer shell of the dying star in different directions. Interestingly the central star of the nebula is one of the hottest known white dwarfs with a temperature of 200,000 K. The nebula checks in at a distance of 1,600 light years and is bright at magnitude 9.1. Observers with big scopes should be able to detect the oblong nature of this beauty. The nebula is found at 7 hrs. 47 min. 55 sec. right ascension, -18 deg. 12 sec. declination.



NGC 2440

Credit: Jeff Cremer/Adam Block/NOAO/AURA/NSF

Double delights

Kappa Puppis

Possibly overlooked due to the low altitude of the star, Kappa Puppis is never the less worth taking a peek at. This little gem is almost an identical twin to Gamma Arietis. The pair is both B type stars with the primary shining at magnitude 4.5 and the secondary checking in at magnitude 4.7. Since they are B stars they both will appear white though at the lower declination, there may be some hints of color due to atmospheric refraction. The separation is a generous 10" so this should be an easy split in any telescope. These little gems look like a pair of headlights coming out of the dark at you. The pair is located at 7hrs. 29 min. 39 sec. right ascension, -26 deg. 48 sec. declination. Take some time out this month and check out this beauty.