

The Focal Point

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Editor: Tom Faber

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October General Meeting

by Keith "Cosmic Kow" Burns, AAC President

The October meeting of the Atlanta Astronomy Club will be held on October 17th, 2008. Location is room 207 of White Hall on the Emory University Campus. Directions to Emory are at the bottom of this article and also on our website. Meeting starts at 8PM with limited commercial interruptions. There will be a business meeting that will include announcements of up coming events and club happenings. There are rumors of the existence of a couple of possible short programs that may occur. Then comes the main event of the evening. Our featured speaker is Dr. Angela Sarrazine, who will give a talk titled: "Open Cluster Research: Strengthening the Cosmic Ladder Distance".

The Talk

The following is in the speaker's own words: "Open clusters are physically related groups of stars held together by mutual gravitational attraction. In terms of the cosmic distance ladder, astronomers can use radar to accurately measure distances to objects within our own solar system. Parallax can be used to find distances to nearby stars. Cepheid variables are used to measure distances throughout our galaxy and beyond. However, having only a few methods to measure these distances opens the field up to errors. Having another measure to strengthen and confirm these distances is extremely useful. Once several standard facts are known about open clusters, they can be used as another source of confirmation for the cosmic distance ladder. Open clusters are also one way for astronomers to have a controlled experiment in space. These stellar groupings can also be used as an inlet into the workings of stellar atmospheres. This talk will focus on current open cluster research and its implications for advancing the cosmic distance ladder and insights into stellar atmospheres."

Speaker Biography

I grew up in New Haven, IN. I attended Indiana University in Bloomington, IN, from 1990-2005 where I earned several degrees including

a B.S. in astrophysics, an M.A. in astronomy, and a Ph.D. in Curriculum & Instruction. I continue to work with Indiana University as part of the WIYN Open Cluster Study (WOCS).

Directions to Emory and Parking

Emory University is in the process of making improvements to the parking and roads. So for the next year, we will have to endure road construction plus the closing of some of our favorite parking spots. For now, the best places to park are the Peavine Parking Deck and the Fishburne Parking Deck. Fishburne Parking Deck is located on Fishburne Drive. When driving on N. Decatur Rd, turn onto Dowman Drive (Dowman is now a one-way road into the campus now from North

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Peach State Star Gaze is Here!!!

by Peter Macumber, PSSG Chair

The PSSG will be held for the second year at our new home at the Deerlick Astronomy Village (DAV). Come and join us for the week or a couple of days under some of the darkest skies in Georgia. This is the 15th year of the Peach State Star Gaze. In order to celebrate our 15th birthday, we will have a party Friday evening with cake and ice cream. Micki's Kitchen will be back, providing food and drink throughout the day and night.

Speakers are lined up to provide us with varied and comprehensive talks and workshops. Don Parker, Ron Buta, Bill Keel, Charlie Warren, Jonn

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The AAC field at DAV during the PSSG '07 - Photo by Tom Faber.

Decatur Road. Exit either by Oxford Road or Fishburne Drive) and then right on Fishburne Drive. You can also access Fishburne Drive from Clifton Road southbound on right before the N. Decatur Rd intersection. Note the Fishburne Parking deck is actually accessible from Fishburne Lane. When driving on Fishburne Drive, watch for the parking lot signs. The parking deck is located behind the Rich Building.

The Peavine parking deck is accessible from North Decatur Road. Take N. Decatur Rd to Oxford Road. Oxford is accessible from N. Decatur Road at two spots. If you are traveling east on North Decatur, then turn right onto Oxford. If traveling west, turn left onto Oxford. Take Oxford Road to the back entrance of Emory and turn onto Eagle Row. Take that to the Peavine parking deck. Note Peavine is across the street from the running track. You can also access Peavine from Clifton Road. Take Clifton south from Briarcliff Road. Turn right onto Asbury Circle. Asbury Circle changes names to Eagle Row. Parking deck will be on right side of road.

October-December Meeting Announcements

November 14th, Speaker & Topic TBA.

December 13th (Saturday), Christmas Dinner and New Planetarium Show. Titled, "The Wonders of the Giants," a Production of Over Productive Imagination Productions. Location is Bradley Observatory on the Agnes Scott College campus.

PSSG *Continued from page 1*

Serrie and the NASA Bus are all scheduled to appear. Vendors are lined up to provide you with an opportunity to buy that "gotta have" accessory. An impressive collection of door prizes is accumulating to be won by the attendees.

Program and Speakers (Information is subject to change)

Don Parker: Thursday - Amateur Contributions to Solar System Astronomy

Ron Buta: Friday and Saturday - Astronomy and the Coal Age of Alabama: The Minkin Paleozoic Footprint Site in north-central Alabama is a window to Earth's Coal Age. Here, people have found the footprints of animals that lived long before dinosaurs walked the Earth. One of the most interesting things about the site is its age. The rocks are part of the Pottsville Formation, which has been dated at about 310 Myr old. What does such an age really mean? In my presentation, I will describe the "deep time" represented by the Minkin Site in terms of astronomy: how does it compare to the ages of stars, the timescales of movement in the Milky Way Galaxy, the orbit of the Sun in the Milky Way, the rotation of the Milky Way, the distances to galaxies, and other interesting timescales. What did the star-gazing tetra pods of Alabama's Coal Age see in their sky? What were the other planets like? There is much we can learn by asking such questions.

Rendezvous with Birr Castle: a Visit to the Heart of Early Irish Astronomy - Birr Castle, in Offaly County, Ireland, is a special place in the history of astronomy. It was here where, in the 1840s, William Parsons, the Third Earl of Rosse, built the world's largest telescope and visually discovered the spiral structure of galaxies. In this presentation, I will describe what I saw when I visited the grounds of the castle in July, 2007, and will show photographs of the recently built replica of the old telescope, the famous 72-inch "Leviathan."

Bill Keel: Thursday and Saturday - Astronomy for a Flat World - the Public and the Data: The spread of networking and computer familiarity raises exciting new possibilities for public involvement in research. We've seen SETI@home, Einstein@home, and so on. The next step was taken with the Galaxy Zoo project, harnessing an unexpected 125,000 participants worldwide to classify galaxies from the Sloan Digital Sky Survey in ways that software still doesn't do as well as the human brain. This effort

has solved questions about galaxy orientation, raised new questions about whether color or form is more important in galaxy history, and provided new samples of galaxies for studies of late star formation and dust content. The team has been especially excited about the discovery of "Hanny's Voorwerp", which seems to be gas illuminated by a dying quasar only 100,000 years ago - for which follow up Hubble observing approval was announced on the 25th birthday of its discoverer, a Dutch schoolteacher. Galaxy Zoo 2 will go public shortly, and arrangements have been made for Galaxy Zoo 3 as new surveys are carried out. This project has demonstrated what a win-win proposition this kind of global public involvement can become.

Charlie Warren: Talk topic TBD

Jon Serrie - The Stargazer's Journey: Jonn will play music during the evening **Friday night** under the starry skies of the DAV.

If it happens to be cloudy we will run movies in the Big Tent.

This year's PSSG starts on Sunday, September 28th and runs a full week until Sunday, October 5th. The website has been updated with new information and pictures. Check out the details at <http://www.AtlantaAstronomy.Org/PSSG>. Preregistration has closed but you can still register on-site. If you wish to volunteer and help in the organization and running of the event, please contact Joanne Cirincione (starrynights@AtlantaAstronomy.org). As a special benefit for volunteers, we have a Speaker and Volunteer dinner on Saturday evening. Registration is same price as last year, but we have lowered the entrance and camping fees. These savings will help you pay for the extra cost of gas. Deadline for early registration is September 5th. Don't delay - we want to see you at the 15th Annual Peach State Star Gaze!



The DAV and Peach State have some of the darkest skies in Georgia!

September General Meeting Minutes

by Richard Jakiel, AAC Recording Secretary

Meeting photos by Tom Faber

The September 19th General Meeting of the AAC began at 8 PM at Emory's White Hall, with President Keith Burns presiding. Approximately 35 AAC members and guests were in attendance. Keith discussed a number of upcoming AAC events including the speaker schedule, observing and GASP events. PSSG Chair Peter Macumber discussed some of the highlights of the upcoming star gaze - including the speaker schedule, list of vendors and Friday night's musical treat by Jonn Serrie. Wrapping up the business portion of the meeting, Tom Crowley discussed the upcoming Chiefland Star party to be held on October 24 - November 8th.

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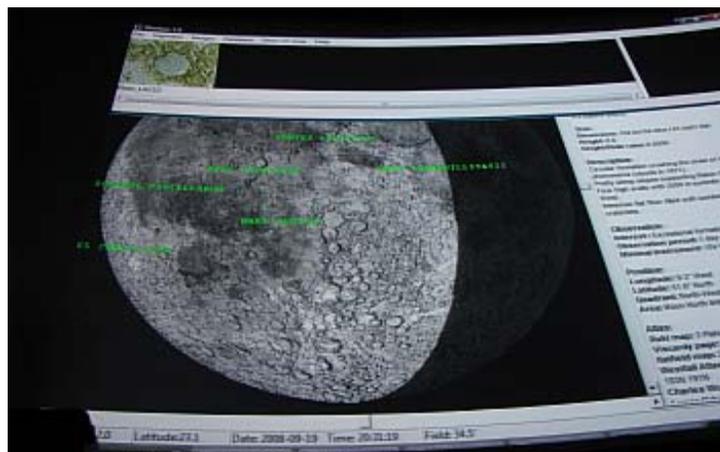
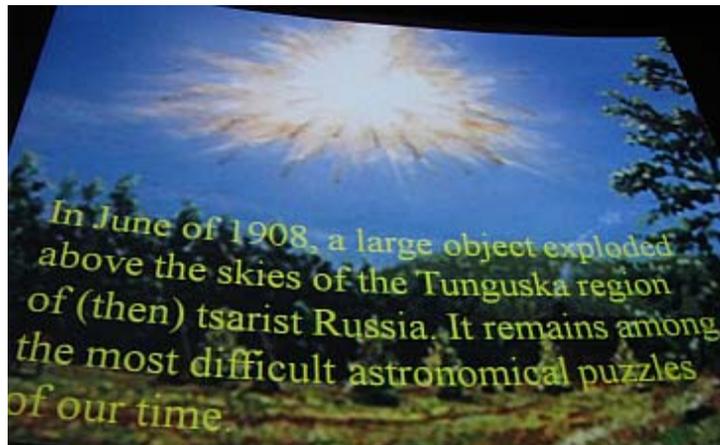
Art Zorka was not present to give the AL update and short program; however Keith did present a segment of "There is Nothing to See". Instead of the usual selection of deep-sky objects, Keith focused on freeware planetarium and lunar programs (bottom photo - showing the Virtual Moon Atlas). All of these programs were loaded with interesting features and are often used in the creation of the maps/graphics in his Power Point presentations.

Main Program

Marc Sandberg introduced the evening's speaker - Dr. Chris Sirola (photo right) of the University of Southern Mississippi (Keith and several other AAC members originally met Dr. Sirola at the April 2008 MidSouth Star Party). His presentation was on the 100th Anniversary (June 30th, 1908) of the Tunguska Event (photo below). The impactor - whether a comet or an asteroid (still uncertain as to which) devastated 1000's of trees on the Siberian landscape. He traced the history of the Tunguska event, including the early Russian research during the 1920's and what is still being done as of today.



After the main meeting was adjourned, a number of members headed off to Athens Pizza for food, beverages and general socializing.



Charlie Elliot Chapter Meeting Minutes

by Ken Poshedly, CE Recording Secretary

(Minutes have been edited for space constraints.)

CE Chapter Director Theo Ramakers called the August 27 meeting to order at 5:05 p.m. and reviewed the agenda for the night. There were 13 members and guests in attendance. Theo explained that the Chapter does indeed value the time and effort of the presenter of the featured presentation for the night, and therefore, it will precede presentations on observing, current events and club news. Theo then provided a brief introduction of the featured speaker for the evening, Dr. Richard Schmude, who is professor of Chemistry and Astronomy at Gordon College in Barnesville, as well as the ALPO observing coordinator of the Jupiter Section of the Assn of Lunar & Planetary Observers.

In his presentation, "Jupiter's Oscillating Storms", Dr. Schmude (photo right, with member Sally Bolton) explained that Jupiter has no solid surface and that it is basically a body of gases of different densities held together by gravity. While the planet itself rotates on its axis in just under 10 Earth hours, different bands or belts move around the planet at different speeds -- all moving from east to west. In addition, clumps, ovals or spots which form in the gas



belts move not only across the face of the planet as seen from Earth, but also slightly north and south, as well. Some examples of planetary spots -- besides the well-known Great Red Spot -- were the Great Dark Spot (Neptune) and Hurricane Fay (Earth). Dr. Schmude distributed images and plastic measuring overlays for all to try their hands at determining the movement of several ovals on Jupiter. Some of features studied were Jupiter's Oval BA, Oval A1, and several white ovals, especially "N2" and "N3". Dr. Schmude recommends methane band filters for those who wish to further study these Jovian features.

Chapter Observing Supervisor Jonathan Wood: In his slightly abbreviated "Observing 101" segment of the meeting, Jon reviewed a number of rise/transit/set times for celestial objects in the coming month, using his program of choice "Calsky" (available at <http://www.calsky.com>).

Chapter Director Theo Ramakers: In his "Current Events" segment of the meeting, Theo used PowerPoint to display some absolutely stunning images of the August 1 solar eclipse with prominences (including a beautiful image from the TERRA satellite of the lunar shadow as it fell on the Earth near the Arctic Ocean), images of the August 16 partial lunar eclipse as seen from Europe, plus a 65-image movie of a transit of one of the Galilean satellites across the face of Jupiter. Theo also presented a number of images from other Chapter members, including Carlos Flores, Jim Honeycutt and Steve Ramsden. The remainder of Theo's presentation included images taken at the recent Imaging Workshop by Larry Owens at Oxford College; images taken by Cassini as it flew by the south pole of the Saturnian moon Enceladus on August 11 only 30 miles from the surface of the moon; and images from the Phoenix Mars Lander near the planet's north polar cap.

CEWMA staff rep Alesia Rast informed us of the various and many cutbacks being implemented by the Georgia Dept. of Natural Resources as it affects the CEWMA. Alesia added that none of the cutbacks will impact the CE chapter of the AAC. But she also asked everyone in attendance to let others know that the CEWMA lodge is available for families or groups, that its costs are comparable with similar facilities and that food service is included.

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Steve Bieger gave an update about his 12.5-inch Dob Project, including visuals of the design he is using as a basis for his final product and images of the scope assemblies as they exist right now. The design Steve is modeling is the High Dobsonian Design, which includes only three aluminum truss tubes and provides better balance. Plettstone Telescopes has been marketing this design and one was shown at the 2007 Peach State Star Gaze. The High Dobsonian was featured in a writeup by Gary Seronik in the April 2008 issue of *Sky & Telescope*.

The meeting was adjourned at approximately 8 p.m.

The next meeting is 5 p.m., Saturday, September 27, and is a Pot Luck Dinner meeting.

Charlie Elliott Future Meetings

Future meetings are on: Oct. 25 (set CE meeting schedule for 2009), Nov. 29, Dec. 27. For meeting updates and other information please check the CEastronomy website: <http://www.CEastronomy.org>

The Astronomical League

As a member of the **Atlanta Astronomy Club** you are automatically also a member of the **Astronomical League**, a nation wide affiliation of astronomy clubs. Membership in the AL provides a number of benefits for you. They include:

- * You will receive *The Reflector*, the AL's quarterly newsletter.
- * You can use the Book Service, through which you can buy astronomy-related books at a 10% discount.
- * You can participate in the Astronomical League's Observing Clubs. The Observing Clubs offer encouragement and certificates of accomplishment for demonstrating observing skills with a variety of instruments and objects. These include the Messier Club, Binocular Messier Club, the Herschel 400 Club, the Deep Sky Binocular Club, and many others.

To learn more about the Astronomical League and its benefits for you, visit <http://www.astroleague.org>

Telescope Atlanta's New Telescope on Display at the Peach State Star Gaze

Telescope Atlanta is pleased to announce the T1 series of Ultra Light Dobsonian Telescopes. David Roberts, telescope designer/engineer, and Dan Llewellyn, owner/engineer, have combined their talents to offer the T1-16, a futuristic minimalist Dob which pound for pound packs the best performance of any telescope in production. Sporting a 16 inch F/4.1 mirror, the focal length is 64.5 inches, and the entire scope comes in at an amazing 69 pounds, making it the lightest 16 inch dob we know of. The heaviest piece for transport is the mirror cell, which is 39 pounds and easily carried by one person.

There were 4 goals in the design of the T1-16. The first was to have the size to be manageable for one person. This includes the weight and the ease of assembly. In less than 5 minutes, one can lift the scope out of the vehicle, assemble, and be ready for observing. The second goal was convenience of transport. We wanted the scope to fit in a sub compact car, so one could drive to their favorite star party or observing site and take the vehicle that gets the



best gas mileage. A further benefit is the elimination of the ladder for most people. No more transport worries, or fear of being up on a ladder late at night. A person 5 foot 3 inches need no ladder at the zenith with the T1-16. The third was a clean, professional design for the best looking telescope around. No plywood or laminate, the final production model will have all aluminum and ABS marine board, Take a look, and we think you will agree, there is nothing like the T1-16. It is truly a work of beauty. The fourth goal was performance. Only the finest mirrors from the top mirror makers are used in the T1-16. An inverted 4 vane spider and a 3.1" secondary provide spectacular planetary and deep sky views.

At the Mid South Star Party, the T1-16 debuted to ooohs and aaahs and was a crowd favorite. Preliminary pricing is \$5995 for the base model (baffle and shroud are included), \$8995 with Argo Navis and ServoCat Junior installed for goto and tracking. For further information, contact Dan Llewellyn at Telescope Atlanta, 404-843-9610. Web: www.telescopeatlanta.com

Bradley Open House Series 2008-2009 "Astronomy Before Galileo"

Humans have been gazing at the stars since they could look up, and have kept written records about motions in the heavens for millennia. This year, we will explore the rich history of astronomy and astronomical thought that predates Galileo. Our speakers will come from a variety of ancient disciplines including astronomy, architecture, classical studies, history and theology. All talks at 8PM unless noted. See <http://bradley.agnesscott.edu/> for more information.

Fall 2008

October 10 - Mike Lynn (Agnes Scott College) - "Copernicus, Revolutions, and Religion in the Sixteenth Century" Doors open at 7 PM for "Moon Festival" activities (sponsored by the Japanese Cultural Events Committee)

November 14 - Amy Lovell (Agnes Scott College) - "Venus and Meso-American Astronomy"

December 12 - Chris De Pree (Agnes Scott College) - "Tycho Brahe and Uraniborg"

Spring 2009

February 13 - Megan Drinkwater (Agnes Scott College) - Title TBA

March 20 - W. A. Calder Spring Equinox Concert & Open House

April 10 - Topic TBA

May 8 - Bill Brown (Columbia Theological Seminary) - Title TBA



Rover to Head Toward Bigger Crater

JPL Press Release - September 22, 2008

NASA's Mars Rover Opportunity is setting its sights on a crater more than 20 times larger than its home for the past two years. To reach the crater the rover team calls Endeavour, Opportunity would need to drive approximately 12 kilometers to the southeast, matching the total distance it has traveled since landing on Mars in early 2004. The rover climbed out of Victoria Crater earlier this month.

"We may not get there, but it is scientifically the right direction to go anyway," said Steve Squyres of Cornell University, principal investigator

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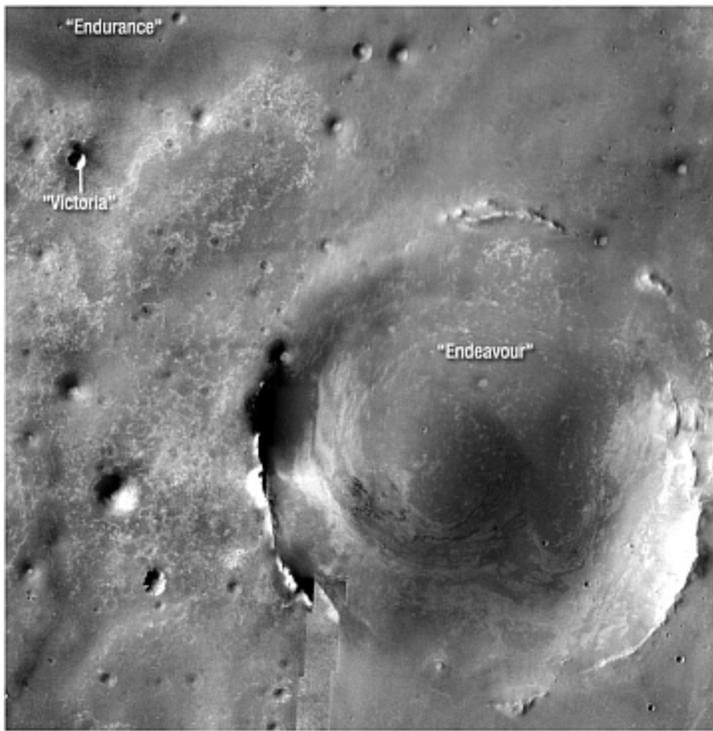


Image credit: NASA/JPL/ASU

for the science instruments on Opportunity and its twin rover, Spirit. "This crater is staggeringly large compared to anything we've seen before."

Getting there would yield a look inside a bowl 22 kilometers across. Scientists expect to see a much deeper stack of rock layers than those examined by Opportunity in Victoria Crater.

"I would love to see that view from the rim," Squyres said. "But even if we never get there, as we move southward we expect to be getting to younger and younger layers of rock on the surface. Also, there are large craters to the south that we think are sources of cobbles that we want to examine out on the plain. Some of the cobbles are samples of layers deeper than Opportunity will ever see, and we expect to find more cobbles as we head toward the south."

Opportunity will have to pick up the pace to get there. The rover team estimates Opportunity may be able to travel about 100 meters each day it is driven toward the Endeavour crater. Even at that pace, the journey could take two years.

"This is a bolder, more aggressive objective than we have had before," said John Callas, the project manager for both Mars rovers at NASA's Jet Propulsion Laboratory in Pasadena, Calif. "It's tremendously exciting. It's new science. It's the next great challenge for these robotic explorers."

Opportunity, like Spirit, is well past its expected lifetime on Mars, and might not keep working long enough to reach the crater. However, two new resources not available during the 4-mile drive toward Victoria Crater in 2005 and 2006 are expected to aid in this new trek.

One is imaging from orbit of details smaller than the rover itself, using the High Resolution Imaging Science Experiment (HiRISE) camera on NASA's Mars Reconnaissance Orbiter, which arrived at the Red Planet in 2006. "HiRISE allows us to identify drive paths and potential hazards on the scale of the rover along the route," Callas said. "This is a great example of how different parts of NASA's Mars Exploration Program reinforce each other."

Other advantages come from a new version of flight software uplinked to Opportunity and Spirit in 2006, boosting their ability to autonomously choose routes and avoid hazards such as sand dunes.

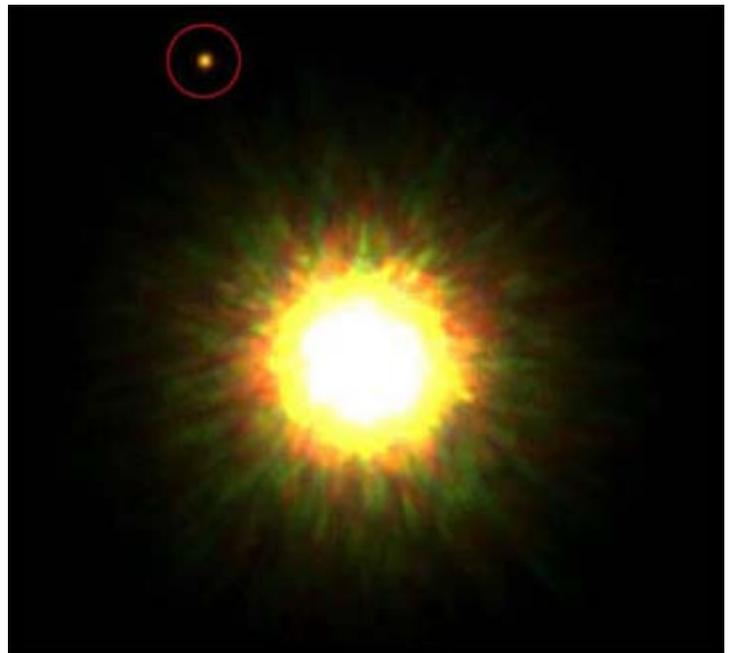
Likely Planet Imaged Around a Sun-like Star

Gemini Observatory News Release - September 15, 2008

Astronomers have unveiled what is likely the first picture of a planet around a normal star similar to the Sun. Three University of Toronto scientists used the Gemini North telescope on Mauna Kea in Hawai'i to take images of the young star 1RXS J160929.1-210524 (which lies about 500 light-years from Earth) and a candidate companion of that star. They also obtained spectra to confirm the nature of the companion, which has a mass about eight times that of Jupiter, and lies roughly 330 times the Earth-Sun distance away from its star. The parent star is similar in mass to the Sun, but is much younger.

"This is the first time we have directly seen a planetary mass object in a likely orbit around a star like our Sun," said David Lafrenicre, lead author of a paper submitted to the *Astrophysical Journal Letters* and also posted online. "If we confirm that this object is indeed gravitationally tied to the star, it will be a major step forward."

Until now, the only planet-like bodies that have been directly imaged outside of the solar system are either free-floating in space, or orbit brown dwarfs, which are dim and make it easier to detect planetary-mass companions.



The star and its likely planet companion (within circle). Credit: Gemini Observatory

The existence of a planetary-mass companion so far from its parent star comes as a surprise, and poses a challenge to theoretical models of star and planet formation. "This discovery is yet another reminder of the truly remarkable diversity of worlds out there, and it's a strong hint that nature may have more than one mechanism for producing planetary mass companions to normal stars," said Ray Jayawardhana, team member and author of a forthcoming book on extrasolar planets entitled "Worlds Beyond."

The team's Gemini observations took advantage of adaptive optics technology to dramatically reduce distortions caused by turbulence in Earth's atmosphere. The near-infrared images and spectra of the suspected planetary object indicate that it is too cool to be a star or even a more massive brown dwarf, and that it is young. Taken together, such findings

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confirm that it is a very young, very low-mass object at roughly the same distance from Earth as the star.

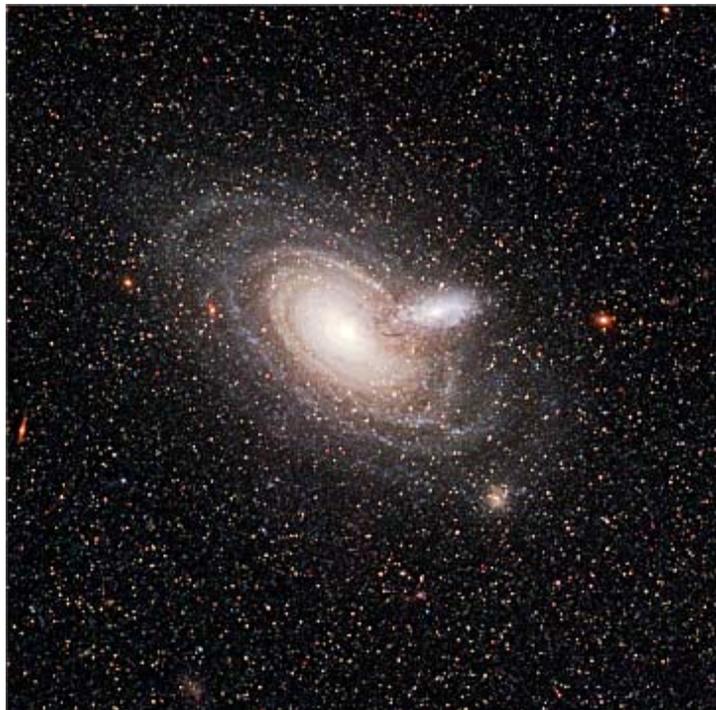
Even though the likelihood of a chance alignment between such an object and a similarly young star is rather small, it will take up to two years to verify that the star and its likely planet are moving through space together. "Of course it would be premature to say that the object is definitely orbiting this star, but the evidence is extremely compelling. This will be a very intensely studied object for the next few years!" said Lafreniere.

Team member Marten van Kerkwijk described the group's search method. "We targeted young stars so that any planetary mass object they hosted would not have had time to cool, and thus would still be relatively bright," he said. "This is one reason we were able to see it at all."

The Jupiter-sized body has an estimated temperature of about 1800 Kelvin, much hotter than our own Jupiter, which has a temperature of about 160 Kelvin, and its likely host is a young star of type K7 with an estimated mass of about 85% that of the Sun.

The work that led to this discovery is part of a survey of more than 85 stars in the Upper Scorpius association, a group of young stars formed about 5 million years ago. It uses the Gemini telescope's high-resolution adaptive optics capabilities to determine the different types of companions that can form around young stars: stars, brown dwarfs, or planetary mass objects. "This discovery certainly has us looking forward to what other surprises nature has in stock for us," said Van Kerkwijk.

The Gemini Observatory is an international collaboration with two identical 8-meter telescopes. The Frederick C. Gillett Gemini Telescope is located at Mauna Kea, Hawai'i (Gemini North) and the other telescope at Cerro Pachon in central Chile (Gemini South), and hence provide full coverage of both hemispheres of the sky. Both telescopes incorporate new technologies that allow large, relatively thin mirrors under active control to collect and focus both optical and infrared radiation from space.



Overlapping Galaxies - 2MASX J00482185-2507365

Credit: NASA, ESA, The Hubble Heritage Team (STScI/AURA)

Hubble Space Telescope Images Overlapping Galaxies

Space Telescope Science Institute News Release - September 16, 2008

NASA's Hubble Space Telescope has captured a rare alignment between two spiral galaxies (photo left). The outer rim of a small, foreground galaxy is silhouetted in front of a larger background galaxy. Skeletal tentacles of dust can be seen extending beyond the small galaxy's disk of starlight.

Such outer dark dusty structures, which appear to be devoid of stars, like barren branches, are rarely so visible in a galaxy because there is usually nothing behind them to illuminate them. Astronomers have never seen dust this far beyond the visible edge of a galaxy. They do not know if these dusty structures are common features in galaxies.

Understanding a galaxy's color and how dust affects and dims that color are crucial to measuring a galaxy's true brightness. By knowing the true brightness, astronomers can calculate the galaxy's distance from Earth.

Astronomers calculated that the background galaxy is 780 million light-years away. They have not as yet calculated the distance between the two galaxies, although they think the two are relatively close, but not close enough to interact. The background galaxy is about the size of the Milky Way Galaxy and is about 10 times larger than the foreground galaxy.

Most of the stars speckled across this image belong to the nearby spiral galaxy NGC 253, which is out of view to the right. Astronomers used Hubble's Advanced Camera for Surveys to snap images of NGC 253 when they spied the two galaxies in the background. From ground-based telescopes, the two galaxies look like a single blob. But the Advanced Camera's sharp "eye" distinguished the blob as two galaxies, cataloged as 2MASX J00482185-2507365. The images were taken on Sept. 19, 2006.

The results have been submitted for publication in *The Astronomical Journal*.

Spitzer Images Star-forming Region W5

Generations of stars can be seen in this new infrared portrait from NASA's Spitzer Space Telescope. In this wispy star-forming region, called W5, the oldest stars can be seen as blue dots in the centers of the two hollow cavities (other blue dots are background and foreground stars not associated with the region). Younger stars line the rims of the cavities, and some can be seen as pink dots at the tips of the elephant-trunk-like pillars. The white knotty areas are where the youngest stars are forming. Red shows heated dust that pervades the region's cavities, while green highlights dense clouds. W5 is about 6,500 light-years away in the constellation Cassiopeia.

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NASA/JPL-Caltech/Harvard-Smithsonian CfA

This image contains some of the best evidence yet for the triggered star-formation theory. Scientists analyzing the photo have been able to show that the ages of the stars become progressively and systematically younger with distance from the center of the cavities.

This is a three-color composite showing infrared observations from two Spitzer instruments. Blue represents 3.6-micron light and green shows light of 8 microns, both captured by Spitzer's infrared array camera. Red is 24-micron light detected by Spitzer's multiband imaging photometer.

Xavier Koenig of the Harvard Smithsonian Center for Astrophysics in Cambridge, Mass is lead author of a paper about the findings in the December 1, 2008, issue of the *Astrophysical Journal*.

Georgia Astronomy in State Parks (GASP) Events

The following are the GASP events scheduled for the remainder of this year:

November 8 - Red Top Mountain State Park.

For more information about these events, contact Keith Burns at Keith_B@bellsouth.net or 770-427-1475.



The GASP volunteers at FDR State Park on Labor Day weekend 2004 - From left to right: Joanne Cirincione, Keith Burns, Harold and Claudia Champ with Ginger, Peter Macumber, Sharon Carruthers, Tom Faber, Kat Sarbell, and Holly and John Ritger. Photo by Holly Ritger.

Atlanta Astronomy Club Website

While this newsletter is the official information source for the Atlanta Astronomy Club, it is only up to date the day it is printed. So if you want more up to date information, go to our club's website. The website contains pictures, directions, membership applications, events updates (when available) and other information. <http://www.atlantaastronomy.org>

The **Atlanta Astronomy Club, Inc.**, the South's largest and oldest astronomical society, meets at **8:00 P.M.** on the third Friday of each month at Emory University's White Hall or occasionally at other locations or times. Membership is open to all. Membership fees are **\$30 (\$35)** for a family or single person membership. College Students membership fee is **\$15 (\$20)**. These fees are for a one year membership (\$5 per year extra charge to receive the *Focal Point* mailed).

Magazine subscriptions to *Sky & Telescope* or *Astronomy* can be purchased through the club for a reduced rate. The fees are **\$33** for *Sky & Telescope* and **\$34** for *Astronomy*. Renewal forms will be sent to you by the magazines. Send the renewal form along with your check to the Atlanta Astronomy Club treasurer.

The Club address: Atlanta Astronomy Club, Inc., P.O. Box 76155, Atlanta, GA 30358-1155.

AAC Web Page: <http://www.AtlantaAstronomy.Org>. Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

AAC Officers and Contacts

President: Keith Burns 770-427-1475 Keith_B@bellsouth.net

Program Chair: Vacant programs@atlantaastronomy.org

Observing Chair: Dave Lumpkin observing@atlantaastronomy.org

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Treasurer: Sharon Carruthers Treasurer@AtlantaAstronomy.org

Recording Secretary: Rich Jakiel
secretary@atlantaastronomy.org

Board Chair: Don Hall - Contact Info TBA

Board: Mark Banks - Contact Info TBA

Board: William Brannet - Contact Info TBA

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Woodruff Observ. Coordinator: Sharon Carruthers
Treasurer@AtlantaAstronomy.org

Webmaster Atlanta Astronomy: Peter Macumber 770-941-4640
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Directions to White Hall at Emory

Our meetings are generally held in a classroom in White Hall. To get to White Hall, turn onto Dowman Drive from North Decatur Road at the five way intersection (across from Everybody's Pizza). White Hall is located across from the new Science & Math building. Parking is available along Dowman Drive on both sides of the road. **The parking lot on the left behind the Admissions Building may be closed.** Additional parking is available in two parking decks near White Hall. For maps to the decks see <http://map.emory.edu>. For more detailed directions to Emory University, visit www.atlantaastronomy.org or go to the Emory web site.

Calendar by Tom Faber (Times EDT/EST unless noted)

September 28th, Sunday - October 5th, Sunday: Peach State Star Gaze!!!

September 29th, Monday: New Moon.

October 6th, Monday: Moon First Quarter.

October 10th, Friday: Bradley Open House, 8PM. See pg 4 for details.

October 14th, Tuesday: Full Moon.

October 17th, Friday: **AAC Meeting at White Hall, 8PM, Emory University.**

October 18th, Saturday: **Telescope & Instr Workshop - Contact Sharon Carruthers.**

October 20th, Monday: Moon Last Quarter.

October 21st, Tuesday: Orionid Meteors.

October 22nd, Wednesday: Mercury at Greatest Elongation West.

October 24th, Friday: **Focal Point Deadline.**

October 25th, Saturday: **CEC Meeting - See pg 4 for details.**

October 28th, Tuesday: New Moon.

November 2th, Sunday: Daylight Savings Time Ends at 2AM.

November 3rd, Monday: Moon near Jupiter.

November 5th, Wednesday: Moon First Quarter. Southern Taurid Meteors.

November 12th, Wednesday: Northern Taurid Meteors.

November 13th, Thursday: Full Moon.

November 14th, Friday: **AAC Meeting at White Hall, 8PM, Emory University.**

November 16th, Saturday: **Telescope & Instr Workshop - Contact Sharon Carruthers.**

November 17th, Monday: Leonids Meteors.

November 19th, Wednesday: Moon Last Quarter.

November 21st, Friday: **Focal Point Deadline.** Moon near Saturn.

November 27th, Thursday: New Moon.

November 29th, Saturday: **CEC Meeting - See pg 4 for details.**

November 30th, Sunday: Moon near Venus and Jupiter.

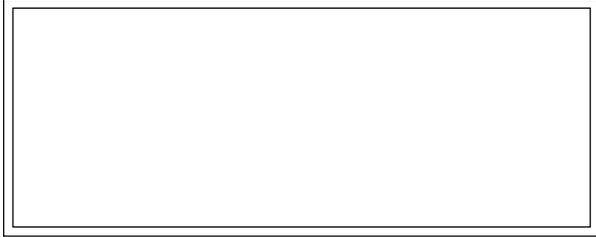
Atlanta Astronomy Club Listserv

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the list is: AstroAtlanta. The address for messages is: AstroAtlanta@yahoogroups.com . To add a subscription, send a message to: AstroAtlanta-subscribe@yahoogroups.com . This list is owned by Lenny Abbey.

Focal Point Deadline and Submission Information

Please send articles, pictures, and drawings in electronic format on anything astronomy related to Tom Faber at focalpoint@atlantaastronomy.org. Please send images separate from articles, not embedded in them. Articles are preferred as plain text files but Word documents are okay. You can submit articles anytime up to and including the deadline date. **The November deadline is Friday, October 24th at 4:00 PM. Submissions will not be accepted after the deadline.**

FIRST CLASS



Newsletter of The Atlanta Astronomy Club, Inc.



The Focal Point

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