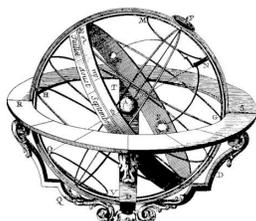




CONSTELLATION

Fall 2009, No. 3

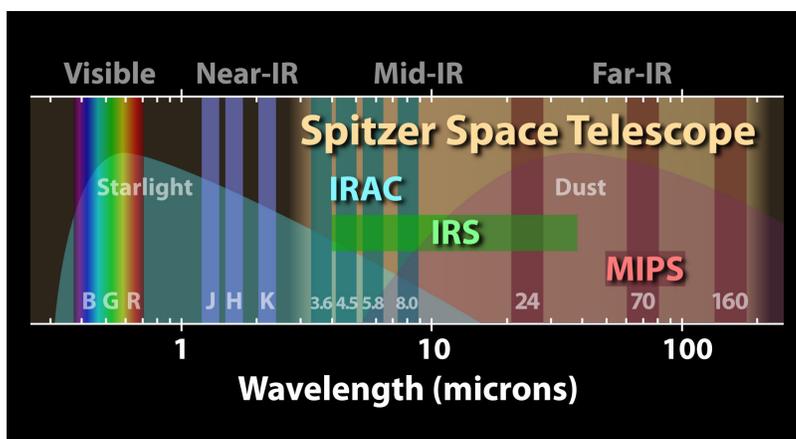


"How quickly do we grow accustomed to wonders. I am reminded of the Isaac Asimov story 'Nightfall,' about the planet where the stars were visible only once in a thousand years. So awesome was the sight that it drove men mad. We who can see the stars every night glance up casually at the cosmos and then quickly down again, searching for a Dairy Queen."

- Roger Ebert

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Spitzer, the Sequel



The "warm mission" of the Spitzer Space Telescope will still be able to use two sensors in its Infrared Array Camera (IRAC) to continue its observations of the infrared universe.

The Spitzer Space Telescope is getting a second chance at life. The liquid helium "lifeblood" that flows through the telescope has finally run out, bringing Spitzer's primary mission to an end. But a new phase of this infrared telescope's exploration of the universe is just beginning.

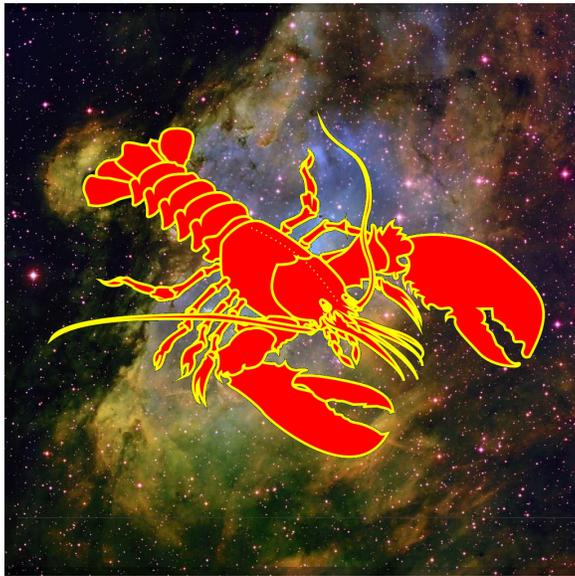
Even without liquid helium, which cooled the telescope to about 2 degrees above absolute zero (-271°C), Spitzer will continue to do important research—some of which couldn't easily be done during its primary mission. For example, scientists will use Spitzer's "second life" to explore the rate of expansion of the universe, study variable stars, and search for near-Earth asteroids that could pose a threat to our planet.

"We always knew that a 'warm phase' of the mission was a possibility, but it became ever more exciting scientifically as we started to plan for it seriously," says JPL's Michael Werner, Project Scientist for Spitzer. "Spitzer is just going on and on like the Energizer bunny."

Launched in August 2003 as the last of NASA's four Great Observatories, Spitzer specializes in observing infrared light, which is invisible to normal, optical telescopes.

That gives Spitzer the power to see relatively dark, cool objects

(Continued on page 12)



MAPS IN MAINE
MAPS CONFERENCE 2010
May 19—22, 2010
Portland, ME

Please mark your calendars now! The Annual Middle Atlantic Planetarium Society Conference will take place May 19 through 22, 2010 at the University of Southern Maine-Southworth Planetarium in Portland, Maine. The conference hosts will be Jerry LaSala, Director and Steve Innes. The Southworth Planetarium was the location of the 1994 MAPS Conference, hosted by Laura Deines and Roy Gallant.

Sorry for the lengthy delay. Since a conference location was not forthcoming at the close of the 2009 conference at the Owens Science Center, it has taken some time for the folks at the Southworth Planetarium and the MAPS Officers and Board to make arrangements.

The conference hotel will be the Eastland Park Hotel, 157 High Street, Portland, ME. They have extended to us a very generous room rate of \$99.00 (plus fees and taxes) per night. The hotel has ample meeting space for the general sessions as well as for vendor exhibits. The hotel is located in the heart of downtown Portland, just 4 blocks from Historic Old Town Portland and Portland Harbor. The hotel is just minutes from the Portland Airport and has shuttle service to and from the airport. Freeport, Maine – home of LL Bean and many other major outlet brands, is just 15 minutes north on I-95.

Additional conference information and registration materials will be forthcoming.

Our Hosts:

Jerry LaSala, Director, lasala@usm.maine.edu

Edward Gleason, Manager, egleason@usm.maine.edu

Southworth Planetarium
University of Southern Maine
96 Falmouth Street - P.O. Box 9300
Portland ME, 04104-9300
(207) 780-4249

CONTACT!

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Wheeling, WV
srmgm@verizon.net
304-242-7614

President Elect

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H. B. Owens Science Center
Prince George's County, MD
pxts13@yahoo.com
301-918-8750

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Novins Planetarium
Toms River, NJ
gvillalobos@ocean.edu
732-255-0400 X 2111

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Brooklyn, NY
liskies@aol.com
631-956-0992

Treasurer

Keith Johnson
Edelman Planetarium
Glassboro, NJ
johnsonk@rowan.edu
856-256-4389

Board Members (2008-2010)

Lee Ann Hennig
Thomas Jefferson High School
Alexandria, VA
lahennig@earthlink.net
703-750-8380

Steve Russo
Suits-Bueche Planetarium
Schenectady, NY
russo@schenectadymuseum.org
518-382-7890 x 253

Ted Williams
Mallon Planetarium
Norristown, PA
twilliams@methacton.org
610-489-5000 X30208



A Note from the President

Happy Autumnal Equinox! (actually, it came and went as I wrote this sentence). Another season has come to pass. I don't know about you, but these last three months seemed to have come and gone pretty close to the speed of light. There is a theory out there that suggests it is possible to travel faster than the speed of light, and at this rate, I just may find out fairly soon.

Some wonderful news to report....my wife and I became grandparents for the first time on Monday, September 14. Collin chose to take his time making his arrival on this planet, but all is just fine.

Another bit of good news is that we have a site for the 2010 MAPS Annual Spring Conference and you will find the preliminary details on the next page.

It has been a difficult road to travel, but the groundwork has been laid and planning for the conference continues.

This brings me to another important issue we must address, and hopefully, rectify. It is becoming more and more difficult to have a choice of possible conference sites more than a year in advance. With budget cuts, staff cuts and constant demands on our time, it has become too easy to not want to commit to hosting a conference. I will admit that a lot of work and preparation go into organizing and pulling off a successful conference. I should know, I've hosted six conferences over the years, but you know, the rewards for doing so are immeasurable.

There are several past conference hosts that are more than willing to provide advice and help for anyone who would like to host a conference, but need that little extra incentive to take the leap. By hosting a conference, you are providing an extremely valuable service, not only for MAPS, but also for yourself. You become an integral part of a process that brings you closer to your fellow colleagues and the vendors who provide so much for planetarians worldwide. Lasting and meaningful friendships and networks develop that give extra meaning and purpose to the reasons why you have chosen this outstanding profession. I ask you to please consider being a conference host and if you would like to discuss the possibility, please do not hesitate to contact me.

I wish you all the best for a great season ahead.

Steve Mitch

President

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**MIDDLE ATLANTIC PLANETARIUM SOCIETY
MINUTES OF THE BUSINESS MEETING OF MAY 14, 2009**

The meeting was called to order by Steve Mitch on behalf of President Gloria Villalobos at 3:40 PM.

Secretary's Report: The Minutes of the May 17, 2008 Business Meeting were distributed and approved.

Treasurer's Report: Keith Johnson presented the MAPS financial report. As of May 9, 2009, we have a balance in our account of \$ 84,121.75. This balance does not reflect hotel expenses for this meeting. We are in good financial condition, and the Board has taken steps to increase benefits to the membership, such as the shirts and laser pointers which have been distributed at the present Conference. A motion to approve the Treasurer's Report was passed.

Membership Committee: Keith Johnson reported that we have had a slight increase in membership; we have 211 members, and 19 life members, for a total of 230 members. Some members have paid dues more than once. They can either have membership extended or receive a refund of the extra dues paid. A motion to approve the Membership Report was passed.

Conference Report: Patty Seaton reported that we have 51 delegates and excellent vendor support for this Conference. A list of delegates attending will be prepared for later distribution. We are requesting and considering proposals for the 2010 and 2011 meetings. The Conference Report was accepted.

Publications Committee: The report was presented by Kevin Conod. The Constellation still welcomes your submissions for coming issues. We are now up to 14 pages. Mike Smith will be working to assist with the production and distribution of the Proceedings. Photos from the Conference are welcome, too. The report of the Publications Committee was accepted.

Web Committee: Ted Williams reported that the software to create our web page is no longer supported. There is a need for new software to design and maintain our web site. We now use a "frames" design which needs revision. In addition, everything on the site needs conversion to pdf files for compatibility purposes. This assures that everyone is able to download important files. The membership was invited to assist with this committee work. The report of the web committee was accepted.

Awards Committee: Wendy Ackerman presented the plaque for last year's Conference to Steve Russo. A similar plaque was presented to Steve Mitch for hosting the Triple Conjunction Conference at Oglebay. Finally, Wendy presented Patty Seaton with a plaque for hosting the present Conference. Wendy recognized Keith Johnson for making our Society logo easily available for use in preparation of the plaques.

Steve Mitch reported that we will be initiating the MAPS Fellow award. In the first year (2010) many people will be eligible for the award, as per the criteria established by the Board. Criteria will be printed in the Constellation for all to see. The report of the Awards Committee was accepted.

IPS Report: Gloria Villalobos, Susan Button, and Lee Ann Hennig reported on IPS activities and plans. The IPS President's message was displayed for all to see. There will be a video on the IPS web site in the near future. All MAPS members were invited to join IPS. The 2010 meeting will take place in Alexandria, Egypt. An informal poll was taken to learn our members' preferences for 2012, where we will meet in either San Francisco or Baton Rouge. Susan Button reported that the annual planetarium contest in Italy, formerly for Starlab educators, is now open to all planetarium educators. The winner will be presenting planetarium lessons in English for Italian students and receives a transportation and meals stipend for a ten-day (April 2010) tour in Perugia, Brescia, and Milan. The report of the IPS Committee was accepted.

Nomination Committee: Don Knapp briefly reported the latest election results (see below). There will be 3 openings for Board seats in the coming election.

Audit Committee: Paul Krupinski reported the results of the past election. The president-elect is Patty Seaton, and Keith Johnson and Sam Storch continue as Treasurer and Secretary, respectively. A total of 83 members voted. The report of the Audit Committee was accepted.

(Continued on page 11)

MAPS Fellow Award – Criteria for Nomination

At the October 11, 2008 Board meeting, a proposal to establish a MAPS Fellow Award was presented to the Board. The motion to accept the proposal was approved. It was first announced during the business meeting at the Spring conference.

The purpose of the award is to recognize those members of the organization who maintain an active membership status of a minimum of 7 consecutive years and at least one of the following criteria:

- Held an elective office or served on the MAPS Board
- Served as a conference host
- Provided significant service to the Middle Atlantic Planetarium Society
- Made a significant contribution to planetarium methodology, technology or education.



A MAPS member can nominate another member or herself/himself for the award by completing the MAPS Fellow Award Nomination Form and submitting the form to the MAPS Awards Committee Chair. After review by the MAPS Board, those nominees completing the requirements will be given the award at the Middle Atlantic Planetarium Society Annual Conference.

WANTED

We are looking for conference locations and hosts for 2011 and beyond. We would love to visit your facility and share your fine hospitality. Those who have hosted in the past admit that it is a lot of work, but it is intensely rewarding. There are several fine facilities within the MAPS region that we have not had the honor and pleasure of visiting for a conference. There are several past conference hosts who are more than willing to share experiences and offer assistance where ever we can. If you are interested, please send a letter of intent to Patty Seaton, MAPS Vice President. Please include the facility name, address, name of contact person, email address, and phone number. Please mail to:

Patty Seaton
H.B. Owens Science Center
9601 Greenbelt Road
Lanham-Seabrook, MD 20706.



MAPS Fellow Award - Nomination Form

Name of nominee _____

Institution _____

Address _____

City _____ State _____ Zip _____

REQUIREMENTS NECESSARY TO MEET AWARD CRITERIA

1. Number of consecutive years of membership in MAPS _____

2. How many conferences have you attended?

Less than five ____ 6 to 10 ____ 11 to 15 ____ More than 16 ____

3. Organizational participation: Elective offices held, Board Member, committee chair, committee membership(s). Please list dates served.

4. Served as conference host. Please list date(s) and location(s).

5. Significant contributions to planetarium methodology, technology, or education (conference papers, workshops, educational development or research, technological innovations)

6. Other professional achievements or contributions (IPS, NSTA, ASTC, etc.)

Please attach additional pages if necessary.

Nominated by: _____ Date: _____

Please submit form to:

Wendy Ackerman
MAPS Awards Committee Chair,
Maryland Science Center, Davis Planetarium,
601 Light Street, Baltimore, MD 21230

EDUCATION COMMITTEE

John Scala, Lenape Valley HS Planetarium, Stanhope, NJ
jscala@lvhs.org

For all those school based institutions, Happy "New Year". High school freshmen classes welcome the class of 2013 (wasn't Y2K only yesterday's news??) The International Year of Astronomy is still in full swing, so let us know of any special programs or events you are planning on presenting to mark "our" year in the public's eye. Also, we are looking for any lesson plans you might feel like sharing. MAPS was founded so that as a 'community' we could feel less isolated in our facilities and share each other's ideas...so let's hear of your plans and activities. Have a great school year!!



Seeking opportunity to visit and work in planetarium

I operate the planetarium at Indiana University of Pennsylvania as part of my faculty duties teaching astronomy and supervising future secondary science teachers. I have been there since 2004, and this is my first experience with operating a planetarium. I do several simple but original public shows a year and lots of school programs. I have an upcoming opportunity to spend a semester off campus (a so-called sabbatical). I am interested in spending part of this working at another planetarium in the region to get an idea of how others operate and program their facilities. It would be great to experience different equipment - I currently work with an A3P and one LCD projector - but it doesn't have to be state of the art. We could produce something new, or work on developing presentation ideas, or whatever - let's collaborate!

I have to inquire early - this opportunity is four semesters off (Fall 2011) - because we have to apply 1-1/2 years ahead of time, with specifics, to be approved for time away from campus. Cost would be minimal for you: no salary, maybe a desk or corner for me to work from, and whatever resources needed to develop a new show or other project (or we

could seek funding). Naturally, I have some ideas of places I'd enjoy living for a few months, but I'm open to possibilities. Contact me by email: kcoles@iup.edu or phone 724)-357-5626.

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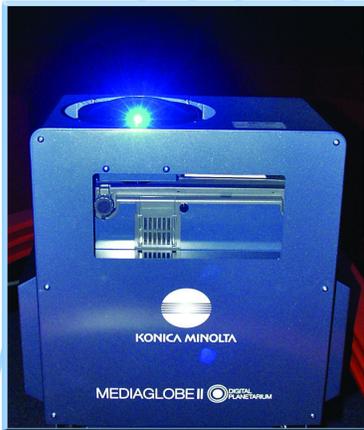
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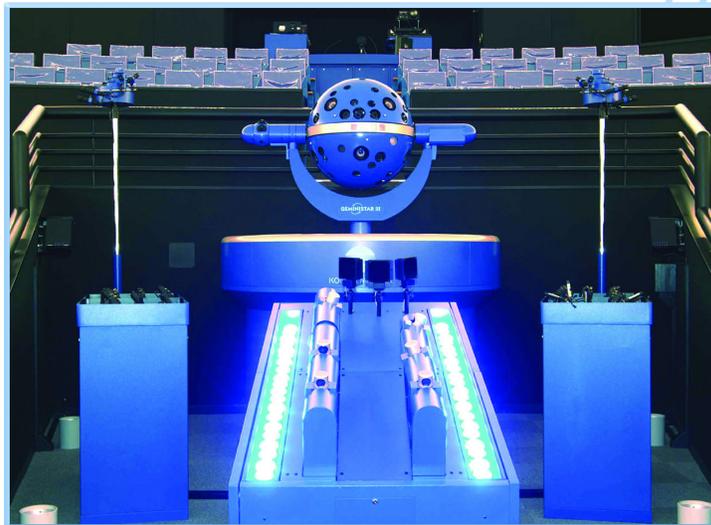
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MIDDLE ATLANTIC PLANETARIUM SOCIETY MINUTES OF THE BUSINESS MEETING OF MAY 14, 2009

(Continued from page 5)

Education Committee: John Scala is not present, so no report was submitted.

Constitution Review Committee: Jan Russo reported that another set of changes is being explored for the Constitution and By-Laws. This will bring the documents closer to modern "practice." Both of these documents, in their current form, are on our web site for your examination. The report of the Constitutional Review Committee was accepted.

Unfinished Business: none.

New Business: The Officers and Board seek ideas for utilizing the financial resources of the Society for member benefits. Some funds have been spent for such items as laser pointers and shirts for the 2009 Conference delegates. A suggestion has been made that some funds might be used to produce slide sets for traditional planetariums unable to use some newly distributed program material. A suggestion was made that the Society might be consider support for some scholarships or internships for students. The web site should contain a downloadable pdf for membership in the Society.

For the Good of the Order: Gloria Villalobos was recognized and thanked by all for her service to the organization as President.

The meeting was adjourned at 4:45 PM.

Respectfully submitted,
Sam Storch
Secretary

Hubble Opens New Eyes on the Universe

NASA's Hubble Space Telescope is back in business, ready to uncover new worlds, peer ever deeper into space, and even map the invisible backbone of the universe. The first snapshots from the refurbished Hubble **READ: Junior version of this article** Amazing Space Learn about this story in the Star Witness, a science newspaper available on our sister site, Amazing Space. showcase the 19-year-old telescope's new vision. Topping the list of exciting new views are colorful multi-wavelength pictures of far-flung galaxies, a densely packed star cluster, an eerie "pillar of creation," and a "butterfly" nebula. With its new imaging camera, Hubble can view galaxies, star clusters, and other objects across a wide swath of the electromagnetic spectrum, from ultraviolet to near-infrared light. A new spectrograph slices across billions of light-years to map the filamentary structure of the universe and trace the distribution of elements that are fundamental to life. The telescope's new instruments also are more sensitive to light and can observe in ways that are significantly more efficient and require less observing time than previous generations of Hubble instruments. NASA astronauts installed the new instruments during the space shuttle servicing mission in May 2009. Besides adding the instruments, the astronauts also completed a dizzying list of other chores that included performing unprecedented repairs on two other science instruments.



Now that Hubble has reopened for business, it will tackle a whole range of observations. Looking closer to Earth, such observations will include taking a census of the population of Kuiper Belt objects residing at the fringe of our solar system, witnessing the birth of planets around other stars, and probing the composition and structure of the atmospheres of other worlds. Peering much farther away, astronomers have ambitious plans to use Hubble to make the deepest-ever portrait of the universe in near-infrared light. The resulting picture may reveal never-before-seen infant galaxies that existed when the universe was less than 500 million years old. Hubble also is now significantly more well-equipped to probe and further characterize the behavior of dark energy, a mysterious and little-understood repulsive force that is pushing the universe apart at an ever-faster rate.



(Continued from page 1)

such as planet-forming discs or nearby asteroids. These objects are too cold to emit light at visible wavelengths, but they're still warm enough to emit infrared light.

In fact, all warm objects "glow" with infrared light—even telescopes. That's why Spitzer had to be cooled with liquid helium to such a low temperature. Otherwise, it would be blinded by its own infrared glow.

As the helium expires, Spitzer will warm to about 30 degrees above absolute zero (-243°C). At that temperature, the telescope will begin emitting long-wavelength infrared light, but two of its short-wavelength sensors will still work perfectly.

And with more telescope time available for the remaining sensors, mission managers can more easily schedule new research proposals designed for those sensors. For example, scientists have recently realized how to use infrared observations to improve our measurements of the rate of expansion of the universe. And interest in tracking near-Earth objects has grown in recent years—a task for which Spitzer is well suited.

"Science has progressed, and people always have new ideas," Werner says. In its second life, Spitzer will help turn those ideas into new discoveries.

For kids, The Space Place Web site has a fun typing game using Spitzer and infrared astronomy words. Check it out at spaceplace.nasa.gov/en/kids/spitzer/signs.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

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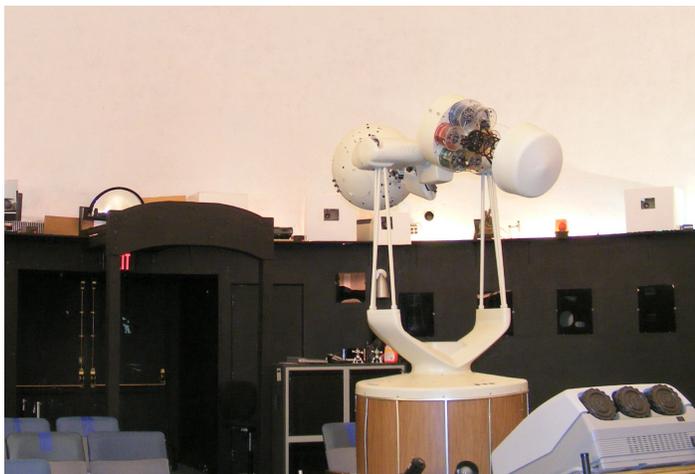
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PLANETARIUM NEWS



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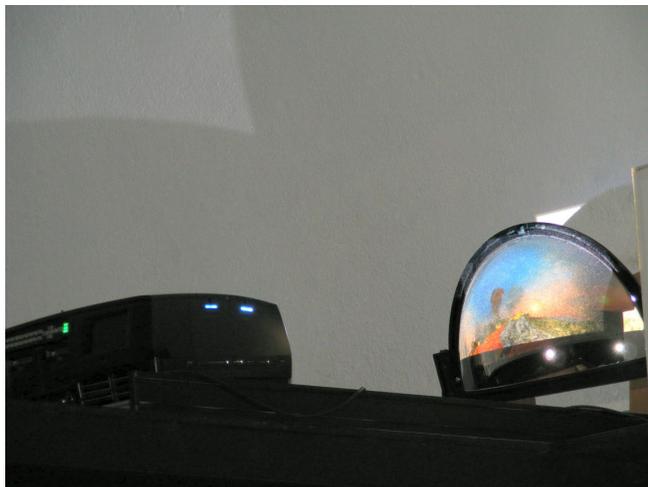
Planetarium upgrade to provide an immersive experience

Get ready to explore the universe like never before as the North Museum planetarium gets a cosmic make-over. A new digital projector will splash video across the entire 41-foot dome providing an immersive experience and propelling central Pennsylvania's largest planetarium into the 21st century. You'll feel like you are soaring through the universe, visiting the planets, or running along with a dinosaur as if you are truly there with video completely surrounding you.

The new High Definition system and high brightness projector, the first of its kind in the nation, premiered October 9 at North Museum members-only screenings. The cutting-edge system features a 1920x1080 pixel Projection Design F32 HD Projector with a convex mirror was developed by ePlanetarium of Houston, Texas.

"This new projector system will dramatically improve our visitors' experience," says Mike Smith, Senior Astronomy Educator. "Not only will we be better able to visually show astronomical concepts, but we'll be able to use the planetarium technology to venture into the other sciences. This upgrade is essential for our planetarium in this day and age," he adds, "but we will continue to use our star projector to provide its incredibly accurate depiction of the night sky for our live Night Sky Tour programs." The Museum will offer free planetarium programs with Museum admission October 11 through November 8.

The \$50,000 projector comes with a new sound system and shows. Two board members, Andrew H. Appel and Roger W. Sandt, are spearheading the fund drive to make this possible. Also leading the way were Lancaster Neuroscience and Spine Associates in honor of Dr. Dan Good, Caroline S. Nunan, and Dan and Karen Good.



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Professional Development

Planetarium News



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c/o Kevin Conod
The Newark Museum's
Dreyfuss Planetarium
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