



NEWSLETTER

RITTENHOUSE
ASTRONOMICAL
SOCIETY

Founded 1888 WWW.RITTENHOUSEASTRONOMICALSOCIETY.ORG

March 2009

OPEN TO PUBLIC AND STUDENTS
Upcoming Meeting on March 11th at
7:30 PM
The Franklin
20th Street and Benjamin Franklin Parkway

March's Meeting Special Event:

"Pluto and the 'People's Telescope': Hubble observations of the Solar System, and the Space Shuttle Servicing Mission saga"

Max Mutchler

Space Telescope Science Institute

by Dr. Ken Kremer, NASA Ambassador

Max Mutchler, Astronomer from the Space Telescope Science Institute (STScI) in Maryland will address the Rittenhouse Astronomical Society at the Franklin Institute, Philadelphia at the regular monthly meeting on Wednesday evening, March 11 at 8 PM. His talk is titled "Pluto and the 'People's Telescope': Hubble observations of the Solar System, and the Space Shuttle Servicing Mission saga".

Mutchler will focus on his exciting and wide ranging research with Hubble and NASA's final Space Shuttle mission to upgrade the historic Hubble Space Telescope. Mutchler discovered Pluto's 2 New moons, Nix and Hydra, in 2005 and produced the best ever images of the two most massive asteroids, Ceres and Vesta to support the Dawn mission currently en route.

Mutchler is a Research and Instrument Scientist working primarily on Hubble's Advanced Camera for Surveys and is also a member of the Hubble Heritage team which has produced most of the iconic images the public has seen from Hubble. The Hubble Space Telescope was launched into orbit in 1990, and it has been serviced by Space

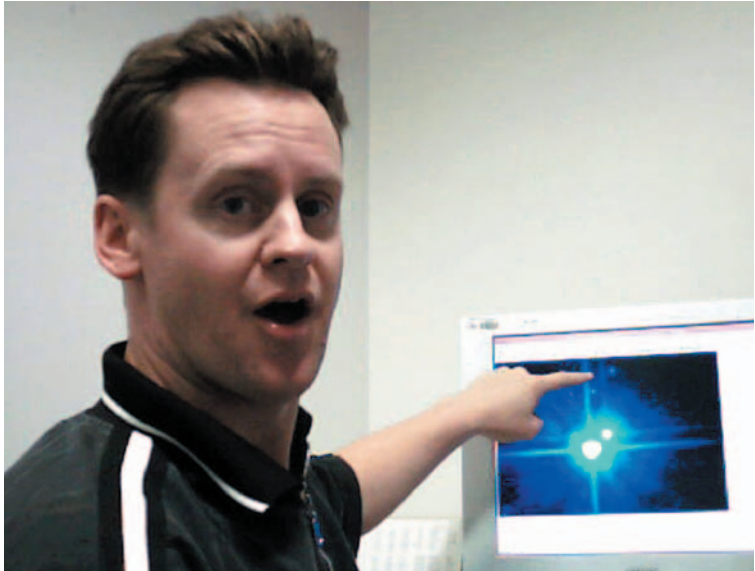
Shuttle astronauts 4 times since then. He works with the team preparing for the 5th and final servicing mission now scheduled to lift off in May 2009. All are welcome (this meeting is open to the public) and students are encouraged to attend this Special Event.

Just Announced:

Stunning New Hubble Photo Op of Saturn & Moons to Premiere at March 11 Meeting.

These observations were planned and conducted by Max Mutchler. Complete details here and check out the cool animation

http://science.nasa.gov/headlines/y2009/19feb_quadrupletransit.htm?list184896



Meeting Agenda

7:20 - Prelude
7:30 - Astronomy Lesson
President's Message
Sky This Month
Guest Speaker
Rooftop Observing - Weather Permitting

Visible Planets 03/11/2009

	Rises	Transit	Sets
Mercury	05:49 am	11:12 am	04:35 pm
Venus	06:38 am	01:25 pm	08:11 pm
Mars	05:26 am	10:42 am	03:58 pm
Jupiter	04:49 am	09:53 am	02:57 pm
Saturn	05:35 pm	12:00 am	06:25 am

President's Message

Dr. Milton Friedman

Every nanosecond the universe gets more exciting. The space experts study it hoping the cosmos will reveal its secrets. Now we live in a marvelous time and we're getting the answers. Today, the numerous ground-based telescopes and the orbiting instruments provide more information and better insight into the universe than was ever possible in the past.

We're aware that an Iridium 33 satellite and a Russian Kosmos struck each other over northern Siberia on Feb. 10. This accident spread many pieces of space debris in an orbit that presents danger to the International Space Station and would interfere with a repair mission to the Hubble Space Telescope.

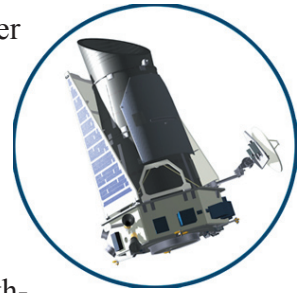
Farther out, a new comet named after a Taiwan observatory has been visible, naked eye, in Virgo in dark skies. Comet Lulin came closest to Earth on Feb. 24 at a relatively close distance of 33 million miles. Also, Ceres, the largest asteroid, is at its closest to Earth since 1857. Located in Leo, the asteroid won't be this close again for a thousand years.



Japan's Kaguya spacecraft is in orbit around our moon. It has returned an extraordinary picture of a penumbra eclipse of the moon as seen from the moon showing the diamond ring effect. It shows a view of Earth in front of the sun. We can see a similar diamond ring effect from a different alignment during a solar eclipse here on Earth where the moon is between the Sun and Earth when viewed from down here.

On Sept. 15, 2008, the collapse of a very massive star caused a violent explosion in the constellation Carina that occurred on the other side of the universe 12.2 billion light years away. The happening was recorded by the Fermi Gamma Ray Space Telescope revealing the greatest amount of total energy ever released equivalent to 9,000 supernovae explosions.

If all goes well, NASA's Kepler spacecraft will be launched on March 5 from Cape Canaveral. Kepler will study 100,000 stars that are similar to our sun for 3 and one-half years searching for Earth-like planets in the Cygnus-Lyra region of the sky. If an Earth-sized planet passes in front of its star, the transit effect will cause dimming of the star.



In the past, we knew unusual things were going on in the cosmos. Thanks to modern technology, we now know exactly what is occurring and, for the first time.....why!

Join the Network

Ted Williams

Consider joining in our Rittenhouse Network. Why you ask? It is a forum that we can share what we have of interest, what we are observing, or questions we may have that others in our group may be happy to answer.

What are we talking about this month? Topics include the upcoming Titan transit of Saturn, observing Ceres, tracking comet C/2007 N3-Lulin, sighting Venus during the day, 365 Days of Astronomy Podcast, the new Google Earth release (version 5), to name a few, plus any topic that you desire. Keep updated on what to expect at upcoming meetings, or consider helping us out with a little promotion for our next upcoming event.

Join us as we learn and explore together. It is provided to you as a membership benefit. At this writing we have e-mailed invitations to all who have e-mail listed in our database. Sadly we do not have e-mail contacts for everyone. If we have not contacted you, please ask at a meeting or contact us through our website. Look in the menu column for the RAS Network. We hope you decide to plug in with us as we share what's up, and what's on our minds.

WELCOME FELLOW MEMBERS:

Our experiment with networking is the Ritten NING

I thank all the Rittenhouse Astronomical Society members who have become part of our networking (Ning) site. This enables all involved to continue to make the RAS a way to interact and better know members and their ideas. We are an astronomical family that shares interest and knowledge. Without question, thanks to you, we are one of the best in the nation.

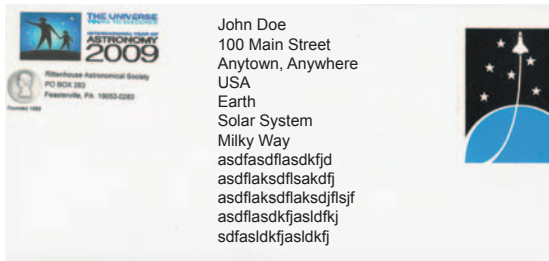
Milt Friedman Dr. Milton Friedman, President

February's Meeting:

Review - Dr. Ken Kremer

We want to thank Dan McCormick, Alan Daroff, Dr. Ken Kremer, Ted Williams and Mike Mountjoy for an enjoyable evening out at the Franklin.

Dan gave us a great introduction to signing onto our Network site and a short review of RSS feeds. Alan kept us up on what is happening in the night sky, and Ken focused us in on all the activity we are conducting on Mars. Ted helped us to find our proper location in the visible Universe with a self addressed stamped "Intergalactic Mailing" commemorative envelop for International Year of Astronomy 2009.



John Doe
100 Main Street
Anytown, Anywhere
USA
Earth
Solar System
Milky Way
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Mike topped off the evening with an awesome presentation about the Franklin memorial renovation. The presentation utilized 4 high end video projectors coordinated to an amazing DMX computer controlled lighting system complete with LED color washes and Goto lighting similar to concert lighting systems utilized today with some of the larger events. What attracted many questions was the tablet PC control board allowing the operator amazing control over the system at the touch of a portable hand held screen. Ben Franklin looked truly amazed and gratified sitting amidst the effects of modern technology.



Following the Feb 11 RAS meeting, Mike Mountjoy lit up the night by treating the club to a premiere showing of the fabulous 4 screen LED show celebrating the life of Ben Franklin in the newly renovated Benjamin Franklin National Memorial at the Franklin Institute.

NASA Mission Updates:

Dr. Ken Kremer, NASA Ambassador

New Discoveries from Fermi/Glast Mission: At the 14 Jan 2009 RAS monthly meeting, Dr. Dave Thompson, the Fermi Deputy Project Scientist from NASA Goddard presented brand new breakthrough discoveries from the Fermi/GLAST space telescope.

NASA has just announced astonishing new science discoveries. The first gamma-ray burst to be seen in high-resolution from NASA's Fermi Gamma-ray Space Telescope is one for the record books. The blast had the greatest total energy, the fastest motions and the highest-energy initial emissions ever seen. The event was recorded by the on-board Large Area Telescope (LAT). Dr. Thompson led the team which built the LAT.

Complete details here:

http://www.nasa.gov/mission_pages/GLAST/news/high_grb.html

<http://www.spaceflightnow.com/news/n0902/19grb/>

BE PART OF HISTORY -- HELP NASA NAME THE NEXT SPACE STATION MODULE:

The contest to name NASA's next manned module for launch to the International Space Station is open until March 20, 2009.

Complete details here:

http://www.nasa.gov/externalflash/name_ISS/index.html

KEPLER SPACE TELESCOPE:

NASA's Kepler spacecraft is scheduled for launch from Cape Canaveral on March 5 atop a Delta 2 rocket at Launch Pad 17 B. Kepler will search for Earth-like planets. "Kepler's mission is to determine whether Earth-size planets in the habitable zone of other stars are frequent or rare; whether life in our Milky Way galaxy is likely to be frequent or rare," says William Borucki, the Kepler science principal investigator at NASA's Ames Research Center. Watch live coverage on NASA TV.

NASA Kepler Website: <http://kepler.nasa.gov/>

DAWN UPDATE:

The DAWN Asteroid Orbiter successfully zoomed by Mars on Feb 17 for a gravity assisted fly-by and trajectory change. Details and first images here:

http://www.nasa.gov/mission_pages/dawn/multimedia/mars-20090220.html

MARS SCIENCE LAB UPDATE:

Read my 2 page, 2 part feature article on the Mars Science Lab and the future of Mars exploration by NASA and ESA (European Space Agency) in the Feb 2009 issue of Spaceflight magazine.

Astronomy Outreach

Dr. Ken Kremer

“Missions to Mars” was the main topic of my outreach talks in February 2009 to kids and adults in PA and NJ. During March, I’ve been invited to present my multimedia “3-D Mars Experience” to large crowds at Princeton University and the Upper Moreland Middle School in Hatboro, PA. See details below.



Rittenhouse Astronomical Society at the Franklin Institute: Dr. Ken Kremer presents a “Mars Mission Update” at the Feb 11 monthly meeting covering Phoenix (pictured here), Rovers, Mars Science Lab, DAWN and Phobos Grunt (planned 2009 launch by Russia). Watch the “Phoenix Farewell Tribute” movie in HD here: <http://phoenix.lpl.arizona.edu>



Riverside Elementary School: At “Family Astronomy Night” in Princeton, NJ rotating groups totaling about 150 enjoyed talks by Ken Kremer on “Twin Rovers Explore Mars in 3-D” on Feb 20.



Kids enjoy learning about Martian science and drilling for life giving water at the Feb 20 Star Party at Riverside Elementary School as Rovers celebrate 5 Years on Mars.

Please contact me for more info or science outreach presentations by email. My upcoming Astronomy talks include:

Kellman Brown Academy: Vorhees, NJ, Feb 27. “Twin Mars Rovers (in 3-D)”.

Science and Engineering Expo, Princeton University, Princeton, NJ: March 19, Thur, 9 AM. “A 3-D Mars Experience: Phoenix and the Twin Rovers”. Website: <http://www.princeton.edu/~pccm/outreach/seeprinceton.htm>

Upper Moreland Middle School: Hatboro, PA, March 25, Wed, 7 PM. “A 3-D Mars Experience: Mars Day Celebration”. Website: http://umtsd.org/MiddleSchool/index_middle_school.htm

Gloucester County College (GCC) Astronomy Club: Sewell, NJ, April 15, 7 PM. “Launching DAWN to Asteroids: From Behind the Scenes at Kennedy Space Center”

Plantation Astronomy Club: Leesburg, FL, May 18, 7 PM. “Hubble Servicing Mission”

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Our **NEW** Mailing Address:

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