



NEWSLETTER

RITTENHOUSE
ASTRONOMICAL
SOCIETY

Founded 1888 WWW.RITTENHOUSEASTRONOMICALSOCIETY.ORG April 2007

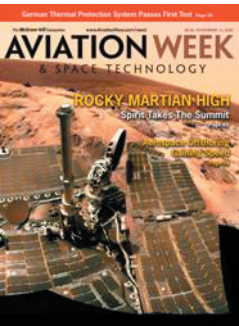
OPEN TO PUBLIC AND STUDENTS
Upcoming Meeting on April 11th at
7:30 PM
Fels Planetarium
The Franklin Institute
20th Street and Benjamin Franklin Parkway

April's Meeting:

Mars, Saturn, Comets and Beyond (IN 3-D)
Dr. Ken Kremer - NASA /JPL Ambassador

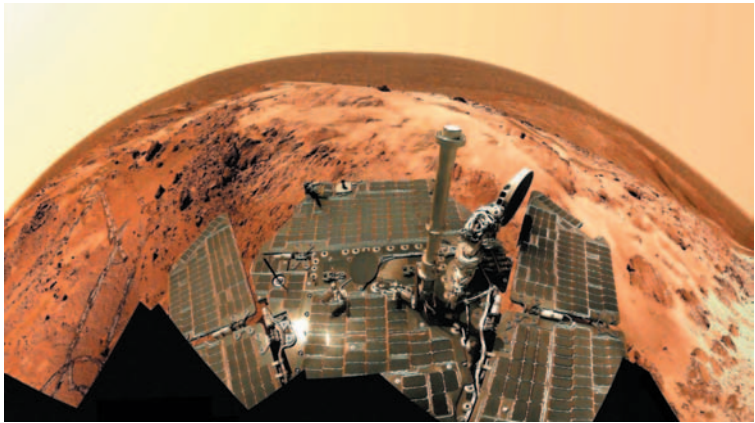


Experience the beautiful and amazing new discoveries in our New Solar System by Spirit and Opportunity as they celebrate 3 years on the Red Planet and by the Cassini Mission to Saturn and its rings and many intriguing moons. These journeys and more to Jupiter, Asteroids, Pluto, Eris and Beyond will be extended into the realm of 3-D. Ken is a NASA JPL Solar System Ambassador and lecture chairman of the Amateur Astronomers Association of Princeton. Ken's international team of astronomy enthusiasts has published Mars images in numerous media, including a "Spirit" cover on the 14 November 2005 issue of Aviation Week and Space Technology magazine.



"Spirit's Soar" Summit Panorama:

The Mars Rover Spirit, high on a Martian mountaintop 50 million miles from Earth, takes a Navcam self-portrait along with mosaic of the summit terrain and the sides of Husband Hill sloping to the distant Gusev crater floor. Spirit drove for 3 miles and two years across the distant plains at rear, to reach and climb the mountain. She took this mosaic on Sol 618 (September 28, 2005) and is remarkably free of dust with the sun glistening on the solar arrays. The image was derived by an international team of Mars enthusiasts (author included). Photo Credit: NASA/JPL monochromatic Navcam imagery merged and color-coded by Marco Di Lorenzo, Douglas Ellison, Bernhard Braun and Kenneth Kremer using JPL/Cornell Pancam



data. Reprinted by permission of Aviation Week and Space Technology magazine (14 November 2005 issue). This picture was featured on the popular Astronomy Picture of the Day (APOD) website on November 28, 2005 and can be downloaded in hi resolution.

~ Ken Kremer

SPIRIT'S SOAR:

"SPIRIT'S SOAR" self portrait at the summit of Husband Hill was the cover image for the 14 November 2005 issue of Aviation Week and Space Technology magazine. The image was derived by an international team of Mars enthusiasts. Picture credit: Marco Di Lorenzo, Douglas Ellison, Bernhard Braun and Kenneth Kremer.

Meeting Agenda

Student Check In	7:15 - 7:30 pm
Astronomy Lesson	7:30 - 7:50 pm
Call to Order: Dr. Milton Friedman	
Sky Tonight: Alan Daroff	
Guest Speaker	
Rooftop Observing: Weather Permitting	

April Student Lesson: *Climate Crisis*

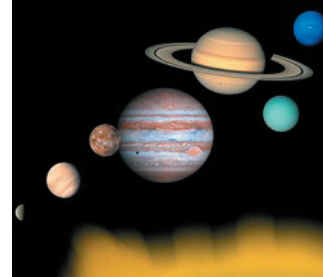
This month our student lesson will focus on a topic that has been in the news quite a bit in past months; global warming and climate crisis. It is with great relief that the science community has finally come together in agreement that global warming is occurring and that mankind is a major contributor to the problem. During this lesson, the facts of global warming and what we can all do to help control the process of this will be discussed. It is important for all of us to save the planet. We can no longer take the position that others will fix it for us!



~Ruth M List

June Meeting: *Gustav Holst: The Planets*

Gustav Holst was a British composer who was born in Cheltenham England in 1874 and died in London in 1934.



One of the last great pieces of music he composed "The Planets" is an overture to the Planetary Celestial Spheres of our Solar System. Before the time of Space probes, Holst composed 7 musical suites each founded in the mythical characteristics and physical appearances provided by telescopes of the visible planets of his age. Now that Pluto has been re-classified and is no longer considered a planet, the music of Holst can once again represent the solar system of today.

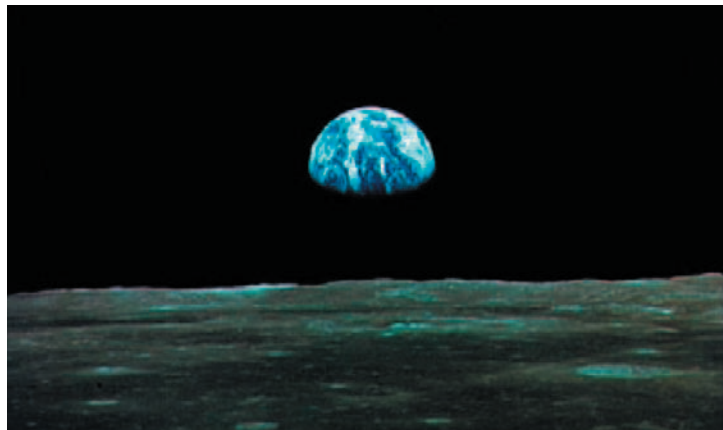
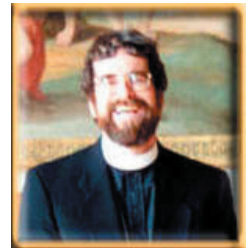
~ Ted Williams

Special Meeting on May 9, 2007

God, Astronomy and the Search for Elegance

Brother Guy Consolmagno

Vatican Astronomer - Curator of Vatican Meteorite Collection



The Jesuit scholar and astronomer will help you understand "There's nothing in science that is anti-religious." "Science is an act of faith."

Brother Guy spends his time at the Vatican Observatory at the Pope's summer residence in Castel Gandolfo, Italy, the University of Arizona's Steward Observatory and teaching at universities.

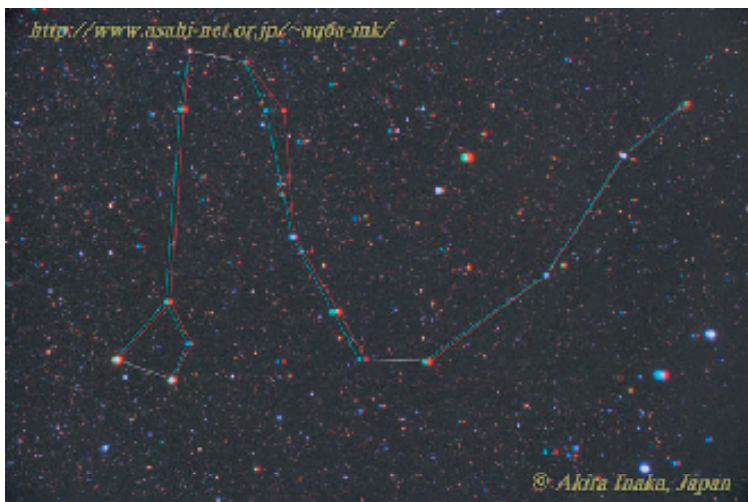
Visible Planets 04/11/2007

	Rises	Transit	Sets
Mercury	05:53 am	11:51 am	05:48 pm
Venus	08:10 am	03:30 pm	10:51 pm
Mars	04:44 am	10:08 am	03:32 pm
Jupiter	12:13 am	04:55 am	09:37 am
Saturn	02:05 pm	09:05 pm	04:05 pm

Experimenting with 3-D Imagery:

At our recent meeting Dr. Albert Lamperti compiled a stereographic tour de force of our Universe. As promised we were treated to Emission Nebulae, Dark Nebulae, Reflection Nebulae and an array of galaxies all rendered in 3-D.

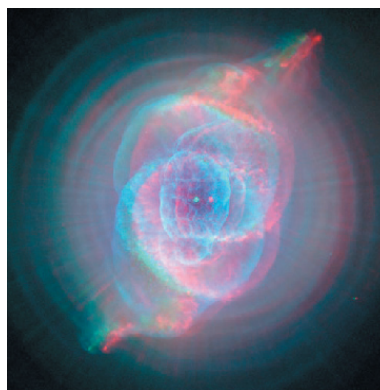
Feedback from some members at the end of the meeting included: “remarkable,” “Awed at the effort put into creating the presentation”, and “stars appeared to float within the cloud.” Some felt “I had trouble with the red lens blocking too much,” “Focusing was difficult at times,” “the stars with their constellation outlines popped right out of the dome.”



We applaud Dr. Lamperti's efforts and want to thank him for a first class presentation. We thank him as he is assisting us in bringing us this 3D experience. For this past presentation we used the planetarium dome to project the images. Many did work, some were difficult but with a little eye aerobics you could decipher the images into a fairly good 3D representation.

For Dr. Kremer's upcoming talk, we have requested the presentation be conducted in Musser hall. We want to see if the 3D image is any more effective on a flat screen as compared with the dome. Dr. Kremer has also suggested

a magenta lens. We also may have a brighter projection in Musser since it is geared to project in a brighter theater than



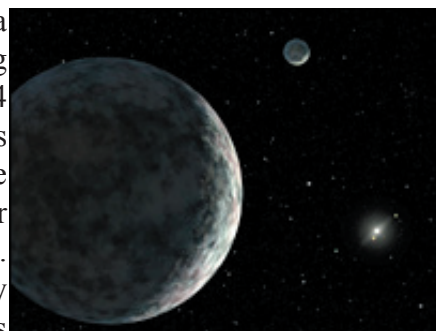
the planetarium. If you can, please bring your 3D glasses from our last meeting. We will supply you with another pair with a slightly different red lens and compare both at our upcoming meeting. Come and join us and be part of our 3-D research to display these images to the best of current ability.

Dr. Kremer promises some amazing planetary landscape projections. We'd love to hear your feedback!

~Ted Williams

Astronomy News Update:

Our former ninth planet has some new friends. Far out in the solar system beyond Neptune, the dwarf planet Pluto is joined by the largest object out there called Eris, discovered by Michael Brown and associates. A new discovery reveals the third largest object in the Kuiper belt called 2003 EL61 which is shaped like a football and spinning end over end every 4 hours. 2003 EL61 is thought to be made of rock with a layer of ice on the surface. Two moons accompany



2003 EL61. What's most exciting and unusual is the discovery that five small objects follow 2003 EL61 in its orbit. The leading explanation about all this is that in the past, a giant impact occurred, a collision that blasted off the two moons and the five trailing objects from 2003 EL61. We anxiously await for more information and the names of the newly discovered dwarf planet and its two moons.

~Dr. Milton Friedman

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