

January 13, 2008, 12:48 PM

CENTRAL COAST ASTRONOMICAL SOCIETY

Sharing the Night Sky for over 25 Years

<http://www.ccastronomy.org>

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Happy weekend everyone.

Here is a meeting / presentation reminder and a plethora of fascinating Astro News. Make note of tomorrow's BIG EVENT for NASA deep in the solar system at planet Mercury.

CCAS EVENT REMINDER

CCAS Meeting & Presentation this Saturday, Jan. 19th

Joint event with the Discovery Institute of SLO

Free event with refreshments.

Public is welcome and encouraged to attend.

Cuesta College, Science Forum Bldg 2400, Room 2401

7:00 PM – 9:00 PM

Dr. Ray Weymann and Dr. Jodi Christiansen speaking on

“The Big Bang: Why It Is and Why Astronomers and Physicists Believe it Happened”

Free parking in Lot. 5 at the back of campus

For details see CCAS Events <http://www.ccastronomy.org/events.htm>

ASTRO NEWS

BIG NASA EVENT TOMORROW – FLY-BY OF PLANET MERCURY!

At **11:04 AM Pacific Time tomorrow, Monday, January 14th**, NASA's Mercury-bound MESSENGER spacecraft, heading for permanent orbit around Mercury in March 2011, will be at its closest point during its first 2-day “fly-by” of Mercury, flying 124 miles above the planet's surface. Launched in August 2004, MESSENGER will travel 4.9 billion miles before entering orbit around Mercury in 2011. It has been 33 years since we last visited Mercury via the Mariner 10 mission, the only spacecraft to visit Mercury.

MESSENGER performs several fly-bys of Mercury and Venus to adjust its course and slow MESSENGER down to a speed that the spacecraft can enter orbit around Mercury in 2011. As a spacecraft heads toward the Sun, it speeds up due to the Sun's tremendous gravitational force, so the MESSENGER spacecraft must perform fly-by's of Venus and Mercury to allow their gravitational forces to slow the spacecraft. One of the many goals of this mission will be looking for is the existence of water ice deep inside permanently-shadowed craters at Mercury's poles.

Images of Mercury and Venus during MESSENGER's flight

http://messenger.jhuapl.edu/gallery/sciencePhotos/view.php?gallery_id=2

Fly-By #1 Information page

http://messenger.jhuapl.edu/mer_flyby1.html

Planetary Radio Webcast about this fly-by (MP3 files)

<http://www.planetary.org/radio/show/00000270/>

Excellent audio report about this fly-by & mission

http://s3.amazonaws.com/planetaryradio/pr_sean_solomon_extended.mp3

Planetary Photojournal Images of Mercury from Mariner 10 mission

<http://photojournal.jpl.nasa.gov/targetFamily/Mercury>

MESSENGER Home Page

<http://messenger.jhuapl.edu/>

History Channel 31 TV Program: LIFE AFTER PEOPLE

Monday, January 21st, 9 PM Pacific Time

Explore the tantalizing question of whether all the remnants of mankind will eventually disappear from our planet. What would happen to the earth if humans ceased to exist? Would ocean life flourish, the buffalo return to the Great Plains and our skyscrapers yield to the wear and tear of time. Visit the ghostly villages surrounding Chernobyl, which were abandoned by humans after the nuclear disaster in 1986 and then travel to the remote islands off the coast of Maine to search for traces of abandoned towns that have vanished from view in only a few decades. Learn from experts in the fields of engineering, botany, ecology, biology, geology, climatology and archeology as they provide answers for many thought provoking questions.

http://www.history.com/minisites/life_after_people/

Free MIT Streaming Video Presentation

The Second Law and Cosmology

By Max Tegmark, Associate Professor of Physics, MIT

Show length: 41 minutes Q&A starts at 23 minutes

<http://mitworld.mit.edu/video/513/>

ATTENTION High School Science Teachers

Astrobiology Summer Education

<http://www.space.com/searchforlife/080110-seti-asset.html>

Nominate Teachers for “2008 American Star of Teaching” Award

The U.S. Department of Education's Teacher-to-Teacher Initiative is accepting nominations for 2008 American Stars of Teaching until **March 31**. Parents, students, colleagues, school administrators and others can nominate an exemplary teacher who they believe has the qualities to be an American Star of Teaching. They are seeking nominations of teachers across the United States who are improving student achievement, using innovative strategies in the classroom and making a difference in the lives of their students. Teachers across all grade levels and disciplines will be honored as **2008 American Stars of Teaching** this fall. To nominate a teacher, go to:

<http://www.ed.gov/teachers/how/tools/initiative/index.html>. The U.S. Department of Education received more than 4,000 nominations for the 2007 school year. A list of previous honorees can be found at: <http://www.ed.gov/teachers/how/tools/initiative/american-stars-teachers.html>. You can read archived news stories about some of the 2007 American Stars at <https://www.t2tweb.us/Updates/Archives.asp>.

Astronomy & NASA – Rewards & Challenges: Address by NASA Administrator Michael Griffin before the AAS

<http://www.spaceref.com/news/viewsr.nl.html?pid=26614>

A Snapshot of NASA Science Plans

<http://www.universetoday.com/2008/01/08/a-snapshot-of-nasas-science-plans/>

Hubble Tune-Up Plans Detailed

<http://www.space.com/missionlaunches/080108-aas-hubble-service.html>

High Hopes for Hubble Following August 2008 Servicing Mission

<http://www.skyandtelescope.com/community/skyblog/newsblog/13543387.html>

Stunning New Image of Centaurus A from Chandra X-ray Observatory

<http://chandra.harvard.edu/photo/2008/cena/>

Google Earth “Sky” Now Includes Chandra Images

http://chandra.harvard.edu/about/google_earth.html

Chandra X-ray Observatory's "Chandra Chronicles"

<http://chandra.harvard.edu/chronicle/0108/universe/>

Chandra X-ray Observatory Podcasts

What's in a Name?

The Truth and Lies about Black Holes

When will History Repeat Itself?

<http://chandra.harvard.edu/resources/podcasts/>

Print Your Own Chandra X-ray Observatory 2008 Calendars

<http://chandra.harvard.edu/resources/handouts/lithos/calendar08.html>

Massive Hydrogen Cloud Is Colliding with the Milky Way Galaxy

<http://www.nrao.edu/pr/2008/smithscloud/>

Spitzer Space Telescope Finds Thin Galaxies Contain Fat Black Holes

We are learning that all kinds of galaxies can contain massive black holes.

<http://www.spitzer.caltech.edu/Media/releases/ssc2008-01/release.shtml>

SDSS Reveals Hidden Population of Powerful Black Holes

<http://www.spaceref.com/news/viewpr.nl.html?pid=24477>

NASA Scientists Predict Black Hole Light Echo Show

http://www.nasa.gov/centers/goddard/news/topstory/2008/blackhole_echo.html

Chandra Finds Rapidly Spinning Black Holes

http://chandra.harvard.edu/press/08_releases/press_011008.html

Colossal Black Hole Shatters the Scales

<http://www.space.com/scienceastronomy/080109-aas-massive-black-holes.html>

Rogue Black Holes Might Fill Our Galaxy

<http://www.space.com/scienceastronomy/080109-aas-rogue-black-holes.html>

Super-Neutron Stars are Possible

<http://www.astronomycast.com/LIVE/?p=113>

SPACE.com 2008 Night Sky Highlights

<http://www.space.com/spacewatch/080111-ns-2008-events.html>

Launch of Space Shuttle Atlantis, STS-122, is Currently Planned for Feb. 7th

<http://www.space.com/missionlaunches/080110-sts122-launch-date.html>

Surprising Evolutions of Deep Space Missions

<http://www.space.com/businesstechnology/080109-tw-algorithm-trajectory.html>

Four Stars Found in a Very Tight Group

<http://www.space.com/scienceastronomy/080110-aas-star-quartet.html>

Colliding Worlds: Have We Observed Aftermath of Distant Planetary Collision?

<http://www.spaceref.com/news/viewpr.nl.html?pid=24475>

Barack Obama's Plan for American Leadership in Space

<http://www.spaceref.com/news/viewsr.nl.html?pid=26647>

Dark Energy, Milky Way Galaxy, Giant Planets: Sloan Digital Sky Survey Continues

<http://www.spaceref.com/news/viewpr.nl.html?pid=24473>

Astronomers are First to Successfully Predict Extra-Solar Planet

<http://www.spaceref.com/news/viewpr.nl.html?pid=24463>

Fireworks Fizzled Out as Universe Reached Middle-Age

<http://www.spaceref.com/news/viewpr.nl.html?pid=24460>

Earth's Climate Change: Support of Nuclear Power by Environmentalists

Free streaming and download Video Presentations July 2006 by:

Greenpeace Founder Patrick Moore 14 minutes

<http://video.google.com/videoplay?docid=-7589913767858032868>

Whole Earth Catalog Founder Stewart Brand 27 minutes

<http://video.google.com/videoplay?docid=-2552526795439161088>

Astronomers Find Rare Double Einstein Ring

<http://www.skyandtelescope.com/news/home/13682267.html>

Star Clusters Found in the Middle of Nowhere

<http://www.skyandtelescope.com/community/skyblog/newsblog/13685257.html>

Discovery of Galaxy Arms Rotating Backwards

<http://uanews.ua.edu/aneews2008/jan08/galaxy010808.htm>

Our Universe: Dark & Messy

<http://www.space.com/scienceastronomy/080107-mm-cosmic-web.html>

Milky Way's Central Antimatter Cloud found to be Lopsided

http://www.esa.int/esaCP/SEMKTXX2MDAF_index_0.html

Baby Versions of the Milky Way Spotted

<http://www.space.com/scienceastronomy/080108-fossil-galaxies.html>

Time-Lapse Animation of Galaxy Jets

<http://www.nrao.edu/pr/2008/mojave/>

Gamma Ray Bursts: NASA and Gemini Probe Mysterious Distant Explosion

http://www.nasa.gov/centers/goddard/news/topstory/2008/gemini_explosion.html

New Risk to Earth found in Supernova Explosions

<http://www.space.com/scienceastronomy/080108-eta-carinae.html>

America's Pioneering Astronauts: One Day They Will Be Gone

<http://www.thespacereview.com/article/1030/1>

Book Review: Lives of the Planets

<http://www.thespacereview.com/article/1029/1>

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