



The Starry Messenger

THE BIGGEST & BEST IN THE METROPLEX!

International Year of Astronomy



The planetarium will be celebrating the International Year of Astronomy 2009 (IYA), come join us for events all throughout the year.

What is IYA? It is the 400th anniversary of the first telescope used for the study of Astronomy.

Galileo Galilei turned the first telescope towards the sky in 1609 and saw what was never seen before; spots on the sun, moons around Jupiter and Saturn's glorious rings. His discoveries led to new discoveries and advancements in the field of Astronomy. IYA honors that great achievement with a variety of events.

Events will be hosted throughout the world this year, to celebrate that amazing breakthrough in astronomy; the telescope. To find an event near you, visit the IYA website [here](#).

Or join us at the Planetarium. We will be hosting events throughout the year. Check our [website](#) for more information. Updates will be made regularly to the site, as more information becomes available.

Bad Astronomy

How About Looking at Real Stars Instead?



Image Credit: Etscorn Campus Observatory

The planetarium announces the new campus observatory.

The new observatory will be located on top of Trimble Hall. A 12 foot dome will be housing a 16 inch Meade LX200 telescope. The telescope will be equipped with a professional grade CCD camera that will allow us to take scientific data. The telescope will be capable of remote observations over the internet.

This telescope will help Astronomy students to perform better night observations and trainings. UT Arlington planetarium is planning to use this observatory to project sky objects into the dome during public shows. UT Arlington will also host public viewing nights for those interested.

The construction will start in late spring and the observatory is expected to be operational in Fall 2009.

This project was initiated by Levent Gurdemir, the Planetarium Director, about a year ago. He said, "the constructional study is done, all safety concerns have been addressed, and Facilities Management and Safety gave a 'go' before holiday break."

Romancing the Stars!



The Planetarium is proud to announce our newest show; **Bad Astronomy:**

Myths and Misconceptions. This show will be added to our public schedule in February. Stay tuned for the spring schedule.

Based on the popular book and website of the same name, **Bad Astronomy** offers a unique and fun approach to learning about the cosmos. Join the "Bad Astronomer", Phil Plait, as he takes a critical look at popular myths and misconceptions to show audiences how science can be used to evaluate questionable claims. **Bad Astronomy** will interest both new and experienced astronomers of all ages as it examines bad science where ever it can be found.

Stars Forming Just Beyond Black Hole's Grasp



The center of the Milky Way presents astronomers with a paradox: it holds young stars, but no one is sure how those stars got there. The galactic center is wracked with powerful gravitational tides stirred by a 4 million solar-mass black hole. Those tides should rip apart molecular clouds that act as stellar nurseries, preventing stars from forming in place. Yet the alternative - stars falling inward after forming elsewhere - should be a rare occurrence.

Using the Very Large Array of radio telescopes, astronomers from the Harvard-Smithsonian Center for Astrophysics and the Max Planck Institute for Radio Astronomy have identified two protostars located only a few light-years from the galactic center. Their discovery shows that stars can, in fact, form very close to the Milky Way's central black hole.



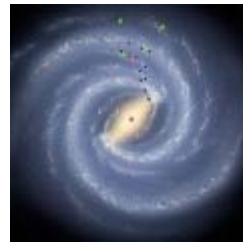
Looking for the perfect Valentine's Day event to share with that special someone? Join us this Valentine's Day at the planetarium for **Romancing the Stars**. If the weather is

good, we will set up our telescopes for your use. Each couple will also receive a box of chocolates and rose!

On Fri, Feb 13th at 7:00 PM, come for the show and free telescope viewing. Or make it a date on Sat, Feb 14th at 8:00 PM and enjoy wine and appetizers with the show.

For ticket reservations and prices, call the planetarium at 817-272-0649. Or send us an [email](#). Tickets reserved after Feb. 10th will be charged an additional 25%. Couples only please.

New Info Says Milky Way Swifter Spinner, More Massive



Fasten your seat belts - we're faster, heavier, and more likely to collide than we thought. Astronomers making high-precision measurements of the

Milky Way say our home Galaxy is rotating about 100,000 miles per hour faster than previously understood.

That increase in speed, said Mark Reid, of the Harvard-Smithsonian Center for Astrophysics, increases the Milky Way's mass by 50 percent, bringing it even with the Andromeda Galaxy. "No longer will we think of the Milky Way as the little sister of the Andromeda Galaxy in our Local Group family." The larger mass, in turn, means a greater gravitational pull that increases the likelihood of collisions with the Andromeda galaxy or smaller nearby galaxies.

Our Solar System is about 28,000 light-years from the Milky Way's center. At that

"We literally caught these stars in the act of forming," said Smithsonian astronomer Elizabeth Humphreys. She presented the finding today at a meeting of the American Astronomical Society in Long Beach, Calif.

The center of the Milky Way is a mysterious region hidden behind intervening dust and gas, making it hard to study. Visible light doesn't make it out, leaving astronomers no choice but to use other wavelengths like infrared and radio, which can penetrate dust more easily.

Humphreys and her colleagues searched for water masers<radio signals that serve as signposts for protostars still embedded in their birth cocoons. They found two protostars located seven and 10 light-years from the galactic center. Combined with one previously identified protostar, the three examples show that star formation is taking place near the Milky Way's core.

Their finding suggests that molecular gas at the center of our galaxy must be denser than previously believed. A higher density would make it easier for a molecular cloud's self-gravity to overcome tides from the black hole, allowing it to not only hold together but also collapse and form new stars.

This article comes from Spaceflight Now, to read the full article go [here](#).

In the Sky



Catch a glimpse of the Goddess of Beauty in the sky, **Venus**! Venus will be visible for almost 4 hours after the sun sets this month. She will remain in the evening sky through

mid-March.

Jupiter is getting lower in the sky as the month continues. Try to catch a glimpse of it just after sunset low in the

distance, the new observations indicate, we're moving at about 600,000 miles per hour in our Galactic orbit, up from the previous estimate of 500,000 miles per hour.

The scientists are using the National Science Foundation's Very Long Baseline Array (VLBA) radio telescope to remake the map of the Milky Way. Taking advantage of the VLBA's unparalleled ability to make extremely detailed images, the team is conducting a long-term program to measure distances and motions in our Galaxy. They reported their results at the American Astronomical Society's meeting in Long Beach, California.

The scientists observed regions of prolific star formation across the Galaxy. In areas within these regions, gas molecules are strengthening naturally-occurring radio emission in the same way that lasers strengthen light beams. These areas, called cosmic masers, serve as bright landmarks for the sharp radio vision of the VLBA. By observing these regions repeatedly at times when the Earth is at opposite sides of its orbit around the Sun, the astronomers can measure the slight apparent shift of the object's position against the background of more-distant objects.

This article comes from Spaceflight Now, read the full article [here](#).

2009 Calendar of Celestial Events



January 3, 4 -
Quadrantids Meteor
show

January 26 - Annular
Solar Eclipse

February 9 - Penumbral Lunar Eclipse

March 8 - Saturn at Opposition

March 20 - Vernal Equinox

April 21, 22 - Lyrids Meteor Shower

southwest. On January 24th, Jupiter will be out of sight completely. Watch for the king planet's return in the morning sky late February.

Saturn will rise around 11:00 pm early in the month and by 9 pm January 31st. Look for it "chasing" Leo's tail this month. Saturn will appear dimmer than usual in the sky because its rings are seen nearly edge on, from out view in space. Come September, the rings will completely "disappear".

The Moon will be putting on a show for us. Keep track of its motions below.

- Jan. 1st - Venus and Crescent Moon
- Jan. 4th - 1st Quarter Moon
- Jan. 7th - Pleiades and near Full Moon
- Jan. 10th - Full Moon
- Jan. 14 & 15 - Saturn and Gibbous Moon
- Jan. 17 - 3rd Quarter Moon
- Jan. 21 - Antares and Crescent Moon
- Jan. 26 - New Moon
- Jan. 26 & 30 - Venus and Crescent Moon

May 5, 6 - Eta Aquarids Meteor Shower

June 21 - Summer Solstice

July 7 - Penumbra Lunar Eclipse

July 22 - Total Solar Eclipse

August 6 - Penumbra Lunar Eclipse

August 12, 13 - Perseid Meteor Shower

September 22 - Autumnal Equinox

October 13 - Conjunction of Venus and Saturn

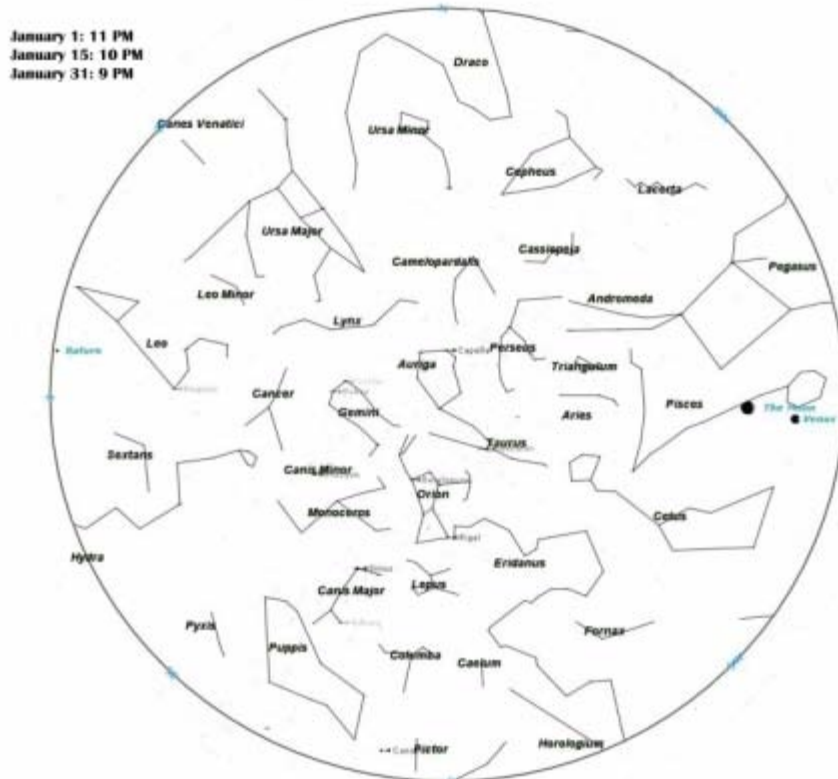
November 17, 18 - Leonids Meteor Shower

December 13, 14 - Geminid Meteor Shower

December 21 - Winter Solstice

December 31 - Partial Lunar Eclipse

Find more sky events [here](#).



This email was sent to planetarium@uta.edu. To ensure that you continue receiving our emails, please add us to your address book or safe list.

[manage](#) your preferences | [opt out](#) using TrueRemove®.

Got this as a forward? [Sign up](#) to receive our future emails.

