



## Holiday Schedule

Get ready for the holidays with the Planetarium's holiday schedule. There are lots of shows to choose from to entertain and inspire the whole family! The holiday show schedule will run from December 6<sup>th</sup> – December 30<sup>th</sup>.

### Thursdays:

6:00 – Holiday Music Magic

### Fridays:

6:00 – Season of Light

### Saturdays:

1:00 – One World, One Sky: Big Bird's Adventure

2:30 – Season of Light

5:30 – Holiday Music Magic

7:00 – Pink Floyd

### Sundays:

1:30 – Experience the Aurora

2:30 – Spacepark 360



This holiday season, we're collecting toys for [Cook Children's Hospital](#). Please help us make the holidays a little brighter by donating a new, unwrapped toy during

## DIGISTAR 5

### Digistar 5

We're making changes that will allow schoolchildren and other planetarium patrons an even better picture of our galaxy and beyond, including the opportunity to experience 3D features.

A new Digistar 5 projection system will be installed this month and will be used for shows beginning in 2013. The [planetarium](#) is the only North Texas facility with the new software.

"With these new features, we will be able to act as if we're riding in an alien spacecraft visiting other vistas of the universe, such as extra-solar planets orbiting distant stars," said Levent Gurdemir, the planetarium's director. "The new software also will allow us to virtually fly from one location to another on Earth because they've integrated Google's terrain map data. So, we can visit volcanoes and fault lines, even take a tourist trip to New York City."

According to computer graphics innovator [Evans & Sutherland](#), the maker of the Digistar 5 system, the new software "contains the most comprehensive set of astronomical data ever assembled, including the fully integrated Digital Universe data set from the American Museum of Natural History and NASA."

"The Planetarium has been a great community outreach tool for the University, and we expect this upgrade to make it an even more valuable asset," said Pamela Jansma, dean of the College of

the holiday season. We'll even thank you for your generosity with a \$2 off discount on any adult ticket through December 30<sup>th</sup>!

Need ideas on what to donate? Please see their [Wish list](#) for ideas and guidelines to follow.

Science.



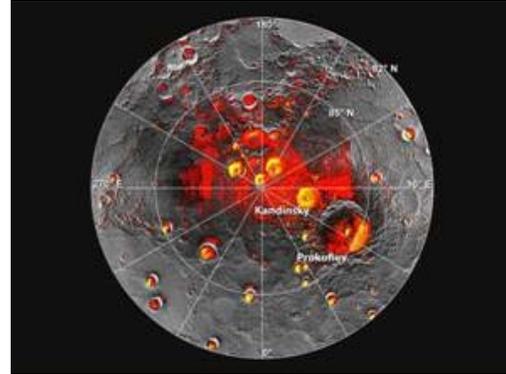
## [Not] The End of the World

Join the Planetarium, National Space Society of North Texas, Texas Astronomical Society and the Fort Worth Museum of Natural History as we celebrate, [Not] The End of the World!

We'll be looking for Nibiru, while enjoying the real sights in the night sky with our telescopes, weather permitting of course! Our planetarium shows will cover topics on the end of the world, Mayan civilization and the Winter Solstice.

Take part in space-related arts and crafts! Make your own luminarias for the solstice, space ship ornaments and more. Enjoy a lecture from Astronomy professors and warm up with hot chocolate or apple cider. Save some money by purchasing a \$15 pass to come to all planetarium shows and lectures that night. Individual tickets for Planetarium shows are \$6 for adults, \$4 for children and seniors, lectures are \$2 per person.

It all starts Friday, December 21<sup>st</sup> at 7:00 pm and will end when the world ends.... or not. More information is available by calling us at 817-272-1183 or by sending us an [email](#).



## Water on Mercury!?!

New observations by the MESSENGER spacecraft provide compelling support for the long-held hypothesis that Mercury harbors abundant water ice and other frozen volatile materials in its permanently shadowed polar craters.

Three independent lines of evidence support this conclusion: the first measurements of excess hydrogen at Mercury's north pole with MESSENGER's Neutron Spectrometer, the first measurements of the reflectance of Mercury's polar deposits at near-infrared wavelengths with the Mercury Laser Altimeter (MLA), and the first detailed models of the surface and near-surface temperatures of Mercury's north polar regions that utilize the actual topography of Mercury's surface measured by the MLA. These findings are presented in three papers published online today in [Science Express](#).

Given its proximity to the Sun, Mercury would seem to be an unlikely place to find ice. But the tilt of Mercury's rotational axis is almost zero — less than one degree — so there are pockets at the planet's poles that never see sunlight. Scientists suggested decades ago that there might be water ice and other frozen volatiles trapped at Mercury's poles.



*Take a tour of the campus this holiday season and enjoy the beautiful lights around the Library Mall and College Park Center (shown above).*