

Last week in space

An Earth-like planet is likely forming 424 light-years away in a star system called HD 113766, say astronomers using NASA's Spitzer Space Telescope. Scientists have discovered a huge belt of warm dust – enough to build a Mars-size planet or larger – swirling around a distant star that is just slightly more massive than our sun. The dust belt, which they suspect is clumping together into planets, is located in the middle of the system's terrestrial habitable zone. This is the region around a star where liquid water could exist on any rocky planets that might form. Earth is located in the middle of



our sun's terrestrial habitable zone. At approximately 10 million years old, the star is also at just the right age for forming rocky planets. For more information see the John Hopkins University, Applied Physics Laboratory (APL) site here: www.jhuapl.edu/newscenter/pressreleases/2007/071003.asp



This Hubble image of NGC 3603 shows many different things happening, all at the same time. Most of the stars in the image were all born in the nebula, and differ in size, mass, temperature and colour. There are some absolute monsters in there, dozens of times the mass of our own Sun. These huge stars live fast and die young, burning through their hydrogen fuel quickly, and blowing out fearsome ultraviolet radiation. The combined radiation of all the stars has carved out an enormous cavity of gas and dust in the centre of the nebula - the clear region in the middle. For more information see the ESA Space Science site here: www.esa.int/esaSC/SEM7A87H07F_index_0.html

The Japan Aerospace Exploration Agency (JAXA) and NHK (Japan Broadcasting Corporation) have successfully taken high definition moving images through the KAGUYA (SELENE) satellite for the first time. The KAGUYA is a lunar explorer launched on September 14 from the Tanegashima Space Centre. The images were taken by the KAGUYA's onboard High Definition Television (HDTV), which was developed by NHK for space use. It is the first high-definition image shooting of the Earth from so deep in space (about 110,000 km away from the Earth) in human history. The moving image data acquired by the KAGUYA was



received at the JAXA Usuda Deep Space Centre and then processed at NHK. The satellite was confirmed to be in good health through telemetry data received at the Usuda station. For more information take a look at the Japanese Space Agency press release here: <u>http://www.jaxa.jp/press/2007/10/20071001_kaguya_e.html</u>

Not to be missed next week

If you are up early next week, you can follow a "celestial ballet" involving Saturn, Venus, Regulus (the brightest star of the constellation of Leo, the Lion) and the Moon.

As from Monday, you can indulge in some "armchair astronomy" and follow Spica (the brightest star of the constellation of the Virgin) as it crosses the Lasco C3 coronagraph of the space telescope SOHO. The images can be seen here: <u>http://sohowww.nascom.nasa.gov/data/realtime-images.html</u>