

Best of Last Week – Confirming the majorana particle, a new earthrise image and forgetting so that you can learn

December 21 2015, by Bob Yirka



The LUX dark matter detector is seen here during the assembly process in a surface laboratory in South Dakota. Credit: Matthew Kapust/Sanford Underground Research Facility

(ScienceX)—It was another good week for physics as a NIMS MANA team in China took [a major step toward confirming the existence of the majorana particle](#)—a fermion that is equivalent to its own antiparticle and which could play a major role in the development of a true quantum computer. Also a team working at LUX, the underground facility in North Dakota, offered [new results from the world's most sensitive dark matter detector](#)—they still have not yet detected dark matter, but they report that they have improved the sensitivity of their instruments by a factor of 20.

In news from space research, an international team studying data from the Hubble telescope and the Spitzer Space Telescope conducted [the largest ever comparative study of exoplanet atmospheres](#) and claimed to have solved the missing water mystery—cloud-free exoplanets were hiding it in their atmospheres. Also NASA released [a new high-resolution earthrise image from the Lunar Reconnaissance Orbiter](#), which they describe as stunning. And researchers working on the VERITAS project reported detecting [gamma rays from a galaxy halfway across the visible universe](#).

In other news, a team of researchers working at Perdue University described [a new 'Hydricity' concept that uses solar energy to produce power round-the-clock](#). It is a system where [solar energy](#) is used to heat water to drive turbines that are used to split water into hydrogen and oxygen and also combines carbon with agricultural biomass to make a variety of products such as food, fuel, heat or electricity. Also, there was an interesting study done by a team of neurologists from Portugal, Italy and the Netherlands—they [discovered a new gait pattern among top Russian officials](#), which they believe may be related to weapons training the men received during their time in the KGB. They call it the "gunslinger's gait." Also interesting was the reporting of a bone found in northern China that a team of Chinese and Australian researchers claimed indicated [that the 'Red Deer Cave people' were a mysterious](#)

[species of human](#). And just in time for the holiday season, a team of researchers affiliated with Copenhagen University reported that they had [localized the Christmas spirit in the brain](#).

And finally if you have ever wondered if you had to give up some of the things you might have stored in your memory when making room for new things, a team of researchers with University of Glasgow's Institute of Neuroscience and Psychology suggested that their study indicated that [forgetting is key to learning](#).

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