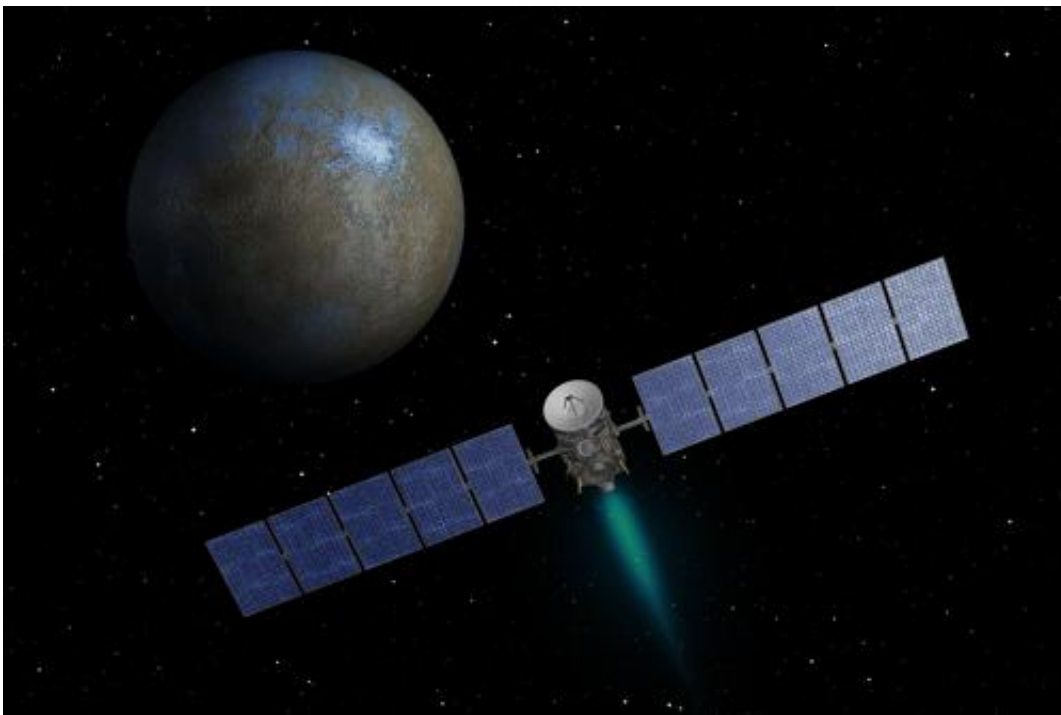


Best of Last Week – New explanation for dark matter, a simulation of the universe and the randomness of cancer

January 5 2015, by Bob Yirka



This artist's concept shows NASA's Dawn spacecraft heading toward the dwarf planet Ceres. Credit: NASA/JPL-Caltech

(Phys.org)—Despite the celebrations leading up to the New Year last week, progress in science marched on—a paper by molecular geneticist Edward Kipreos, with the University of Georgia, for example, describing [a study that found a possible alternative explanation for dark energy](#)

made news. He suggested that changing the way people think about time dilation might offer an alternative explanation of the mysterious force that drives the expansion of the universe. Also, a team of physicists at City College of New York published a paper describing their work which involved unveiling [new half-light, half-matter quantum particles](#) in very thin semiconductors—which could help pave the way to computing technology based on quantum properties of light. And in an interview with *Phys.org*, Professor David Pines of the University of California and the Santa Fe Institute described a paper he had published with Dr. Yi-feng Yang of the Chinese Academy of Sciences, regarding [how a novel experiment-based expression can explain the behavior of unconventional superconductors](#).

In other news, NASA announced that the [Dawn spacecraft began its approach to the dwarf planet Ceres](#)—which is situated between the orbits of Mars and Jupiter in the asteroid belt and holds many secrets which will very soon be revealed. An international team of researchers published a paper in *Monthly Notices of the Royal Astronomical Society*, describing [a simulation of the universe with realistic galaxies](#) they have created—it is called the EAGLE project and they have also released an iPhone app based on one of the simulations.

In an interesting development, a team of researchers at the University of Cape Town Medical School in South Africa, announced that they believe they have found [the cause of death of the enigmatic Mrs. Oscar Wilde](#)—complications from surgery meant to cure her of multiple sclerosis. Also interesting were the findings by a pair of researchers who found that [those who take part in violent conflict have more wives and children](#)—at least those in an East African herding tribe who engage in violent raids on neighboring groups.

And finally, if you are one of the millions of people who wonder why they or a loved one have been afflicted, [a new study suggests that the](#)

["bad luck" of random mutations plays a predominant role in cancer.](#) A team at Johns Hopkins Kimmel Cancer Center found that roughly two thirds of cancers come about due to mutations that occur in genes that drive cancer that are not due to inherited genes or the environment—it is just the luck of the draw.

Special Note: You may also be interested in checking out [ten of the biggest science and technology stories of 2014 on Phys.org](#) or [ten of the top medical research discoveries of 2014 on Medical Xpress](#).

© 2015 Phys.org

Citation: Best of Last Week – New explanation for dark matter, a simulation of the universe and the randomness of cancer (2015, January 5) retrieved 1 July 2024 from <https://phys.org/news/2015-01-week-explanation-dark-simulation-universe.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--