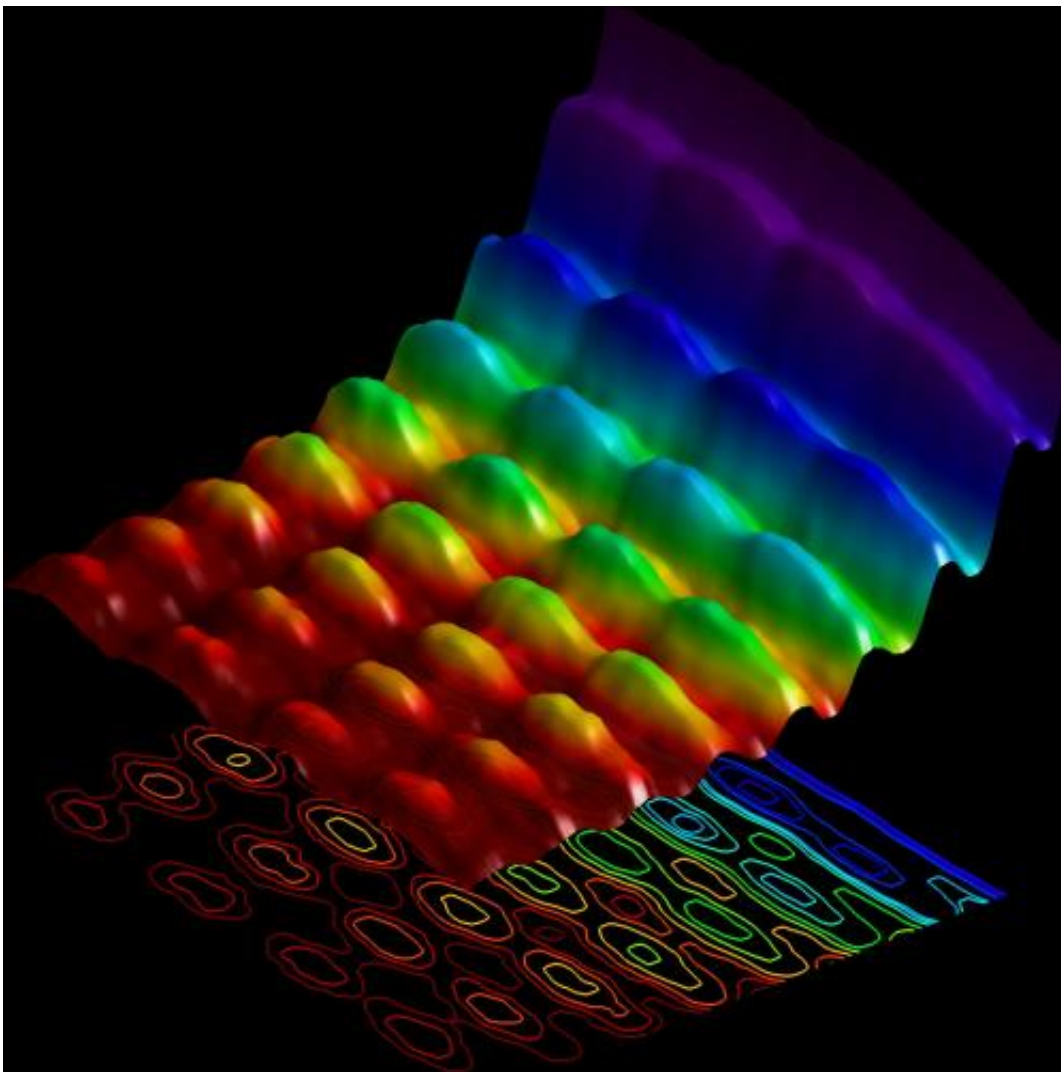


# Best of Last Week – First photo of light as particle/wave, the dark side of cosmology and a hormone that mimics exercise

March 9 2015, by Bob Yirka

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(Phys.org)—It was another interesting week for physics as a team working at École Polytechnique Fédérale de Lausanne found a way to take [the first ever photograph of light as both a particle and wave](#). Meanwhile, another team working at UC Santa Barbara announced that they had developed [the first-ever quantum device that detects and corrects its own errors](#)—a necessary precursor in developing a full quantum computer.

In space news, David Spergel, an astrophysicist at Princeton, offered a compelling look at [the dark side of cosmology](#)—and explained why scientists are so sure that [dark matter](#) and [dark energy](#) exist. Also, a team analyzing data from the Keck telescope discovered, all jokes aside, [a giant methane storm on Uranus](#), a surprise, as the planet's atmosphere was not known to be so energetic. And speaking of energy, researchers working at Northumbria University described [a breakthrough in energy harvesting that could someday power life on Mars](#)—it is a motor that runs on carbon dioxide and is based on the Leidenfrost effect.

It was also a good week for technology development as [a team of students launched a desktop recycler that turns pop bottles into 3D printer plastic](#)—a development that could greatly reduce the cost of printing 3D objects. Another team investigating bucky-balls developed [a buckybomb that shows the potential power of nanoscale explosives](#)—the reaction showed a huge increase in temperature and pressure in just a fraction of a second. And a combined team of researchers from the U.S. and Japan announced [a breakthrough in OLED technology](#)—their devices, they claim, can produce brilliant low-power light sources. A team at Rutgers University reported that they have found [a link between BPA exposure and autism spectrum disorder](#)—a finding that could have widespread implications for the widely used plastic. And researchers at the Technical University of Ilmenau announced that their research indicates that [Na-ion batteries are getting closer to replacing Li-ion batteries](#).

And finally, if you happen to be one of the millions who find it difficult to diet and exercise, a team of researchers at USC announced [a newly discovered hormone that mimics the effects of exercise](#)—perhaps someday soon, instead of getting out and doing stuff, people can just take a pill when they eat to keep themselves in shape.

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