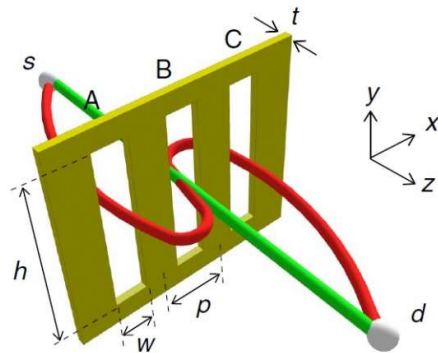


Best of Last Week—Detection of exotic looping photons, ocean warming confirmed and a cancer killing pepper plant

9 January 2017, by Bob Yirka



The red path shows an exotic looped trajectory of light through a three-slit structure, which was observed for the first time in the new study. Credit: Magaña-Loaiza et al. *Nature Communications*

(ScienceX)—It was a good week for physics and the start of another new year as an international team of researchers reported the [detection of exotic looped trajectories of light in a three-slit experiment](#)—a new take on the famous double-slit experiment revealed that photons were actually looping back around and returning through another slit. Another team with members from institutions in the U.S. and Korea reported that [multiple copies of the Standard Model could solve the hierarchy problem](#), leading perhaps to an explanation of why some of the fundamental forces are so much stronger than others.

It was also a good week for space news as a combined team of researchers from the University of Minnesota and the North Carolina Museum of Natural Sciences got [a first look at a new, extremely rare galaxy](#)—(PGC 1000714), which appears to belong to the Hoag-type class of galaxies. Also, NASA visualizer Ernie Wright

released a lunar profile and [moon data that provides a more accurate 2017 eclipse path](#) than ever before—it showed the path the moon's shadow will follow during this summer's solar eclipse. Also, [Hubble provided an interstellar road map for the Voyager satellites' galactic trek](#) as they move into the [interstellar medium](#).

In other news, a team led by researchers at the University of California and Berkeley Earth found evidence that [confirmed the results of a study confirming the steady warming of the oceans for the past 75 years](#)—the study published two years ago suggested that the oceans have continued to warm even as the atmosphere experienced a global warming hiatus. Also, Israeli aeronautics firm Urban Aeronautics announced that [a drone big enough to carry people passed another milestone](#)—flying autonomously over uneven terrain. And there was a report in the *New England Journal of Medicine* outlining the means by which [an artificial 'voice box' implant has been helping cancer patients speak again](#). The device is made by French company Protip Medical. Also, a pair of researchers, Nicole Cameron and Cheryl McCormick with Binghamton University and Brock University respectively reported on evidence they had found showing that [females seeking a sex partner can tell whether males experienced stress during adolescence](#).

And finally, if you are a connoisseur of Indian food, you might be interested in a study conducted by UT Southwestern Medical Center—researchers there [uncovered the mechanism for cancer-killing properties of a type of pepper plant](#). Known more widely as the long pepper, it is used to spice up Indian dishes and has been suspected of possessing medicinal properties for thousands of years.

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APA citation: Best of Last Week—Detection of exotic looping photons, ocean warming confirmed and a cancer killing pepper plant (2017, January 9) retrieved 28 July 2017 from <https://sciencex.com/news/2017-01-weekdetection-exotic-looping-photons-ocean.html>

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