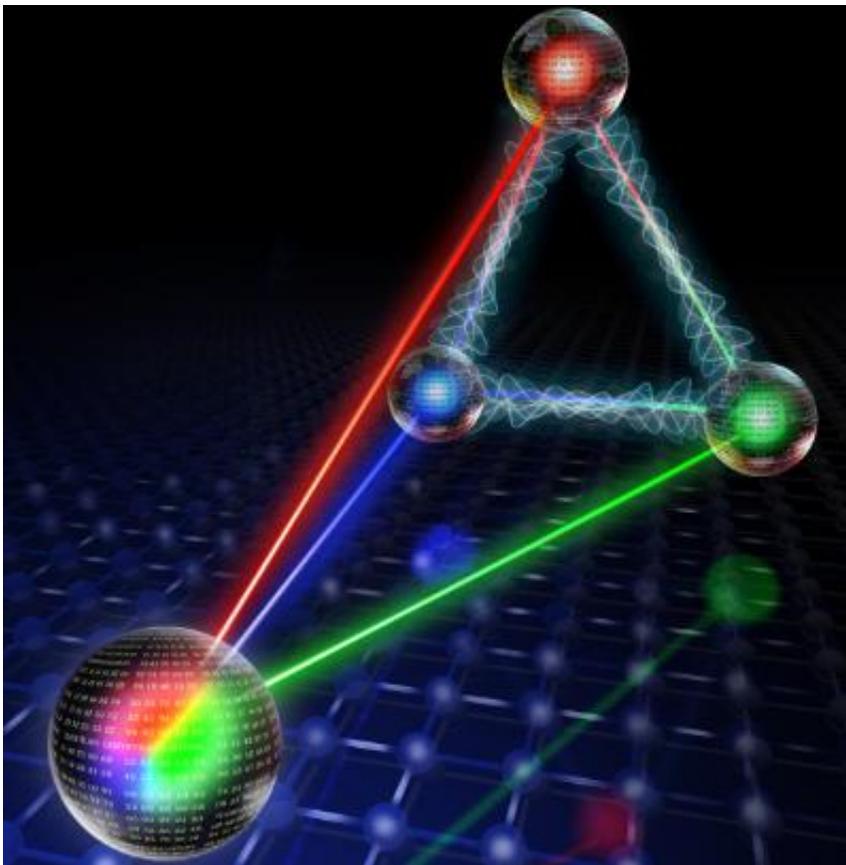


Best of Last Week – Extending Einstein's spooky action, accelerated sea level rise and city personality mismatches

January 19 2015, by Bob Yirka



(Phys.org)—It was an interesting week for physics as a team of researchers found [a way to extend Einstein's spooky action to allow for](#)

[its use in quantum networks](#), to more than two optical systems. They believe it paves the way for bigger quantum networks. Also, another team published the results of research where they were looking to answer the question, [how well can information be stored from the beginning of time to its end?](#) After taking into consideration a host of physics laws and the expansion of the universe, the team concluded that the answer appears to be, not very well. In another interesting study a team of [researchers conducted the first direct measurement of gravity's curvature](#)—by measuring the change in the gravity gradient caused by a large mass at three locations. They believe their method will allow for an improvement in the Newtonian constant of gravity. Equally interesting was a demonstration by a team of researchers of [a metasurface that can solve calculus problems as an analog computer](#)—by illuminating it with a laser beam. The surface causes the light waves to be changed to the shape of its integral or derivative.

In other news, a team at Harvard conducted a study that revealed that [the acceleration in sea level rise has been far larger than initially thought](#)—they found that estimates of [sea level rise](#) early in the 20th century were lower than thought, which meant that the high levels we see today came more recently, which means it is happening faster than most scientists have suspected. More optimistically, University of Waterloo scientists reported that [chemists are one step closer to a new generation of electric car battery](#)—because a new material has been found that is able to maintain a rechargeable sulfur cathode. And a team at Trinity College reported that they had found [a way to produce black phosphorus in bulk](#)—and because it is inexpensive it might pave the way for its use in commercial applications. Also, another team at MIT conducted [a study that detailed a link between inflammation and cancer](#)—now doctors have a better understanding of why people who suffer from [chronic inflammation](#) are at increased risk for some types of cancers.

And finally, an international team of researchers has found that [if you](#)

are tired of London, you may be living in the wrong place—or wherever else you may live—it may be all in the personality. After studying survey data gathered by the BBC, they concluded that because of their nature, and the personality of cities, towns, etc., some people might be happier if they moved somewhere else.

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