

Best of Last Week – Hyperentanglement across roof tops, diamond rain and dancing to slow aging

August 28 2017, by Bob Yirka

Credit: University of Manchester

It was a good week for physics as a team at the National Graphene Institute demonstrated that [electrons flowing like liquid in graphene could start a new wave of physics](#) regarding the future of nano-electronic

circuits. Also, a team with members from Vienna and China announced that [hyperentanglement across rooftops should pave the way to a global quantum internet](#)—their work showed that hyperentangled photons could be transmitted in free space. And a team of physicists from China, Japan and Canada found that [unconventional quantum systems may lead to novel optical devices](#) by demonstrating an optical system based on an unconventional class of quantum mechanical systems. Also, a team with members from the U.S., China and Russia, demonstrated that [liquid water can generate THz waves](#), a concept that was once thought impossible.

In other news, a team at UNSW Sydney resolved [the mathematical mystery of an ancient Babylonian clay tablet](#)—turns out the 3,700-year-old tablet represents the world's oldest trigonometric table. Also, an international team of researchers announced that they had developed [energy-harvesting yarns that generate electricity](#) when stretched or twisted. And a team working at the SLAC National Accelerator Laboratory announced that they had [created "diamond rain" of the type that forms in the interiors of icy giant planets](#), confirming a long-held theory that it was possible. Also, a team at the University of California came up with a new theory that suggests [the heavy elements are created when primordial black holes eat neutron stars from within](#), causing conditions that could lead to an r-process. Also, a team at the APC Microbiome Institute at University College Cork [shed new light on the link between gut bacteria and anxiety](#)—such bacteria, they found, might actually be influencing anxiety-like behaviors.

And finally, if you've been looking for ways to slow the impact of father time on your cognitive skills, you might want to take a look at a study conducted by a team at the German Center for Neurodegenerative Diseases—[they found that dancing can reverse the signs of aging in the brain](#).

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