

Best of Last Week: Objective reality doesn't exist, Wi-Fi can track you in home, and the Keto diet's effect on the flu

November 18 2019, by Bob Yirka



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It was a good week for physics as a team with members from MIT, Harvard University, SLAC National Accelerator Laboratory, Stanford University and Argonne National Laboratory carried out [an experiment](#)

[with ultrafast laser pulses that produced a previously unseen phase of matter](#)—a highly ordered charge density wave at right angles to an original CDW. Also, a team at Heriot-Watt University in Edinburgh carried out [a study that suggested that objective reality doesn't exist](#). And a team from the University of Bonn and the University of Cologne reported that they [irreversibly split photons by freezing them in a Bose-Einstein condensate](#).

In technology news, a team with members from the University of Chicago and the University of California, Santa Barbara, showed that [hackers could use Wi-Fi to track people inside their homes](#) using only a small, commercially available Wi-Fi receiver outside the target site. And two researchers at Adobe Research and the University of Washington introduced [a deep-learning technique to generate real-time lip sync for live 2-D animation](#)—Wilmot Li and Deepali Aneja outlined a system they developed that entails transforming an actor's speech into corresponding mouth movements for an animated character. A team at Purdue University developed [a new material that points toward highly efficient solar cells](#)—and it does not involve the use of lead. And an international team of researchers reported that they had [discovered vulnerabilities affecting billions of computer chips](#)—they claim to have found a TMP-Fail attack vulnerability in chips from Intel and STMicroelectronics.

In other news, officials at NASA made headlines when they [renamed a faraway ice world after a backlash related to the name's Nazi origins](#)—originally named Ultima Thule, after a mythical northern land in classical and medieval European literature, it was changed to "Arrokoth" after a backlash by people offended by the original name's ties to the fabled ancestral home of the "Aryan" people by Nazis. Also, a team at University Medical Center in Germany made the headlines when they announced that they had [established how e-cigarettes damage the brain, blood vessels and lungs](#).

And finally, if you are worried about contracting the flu, you might want to take note of the results of a study conducted by a team at Yale University—they found that [the Ketogenic diet helps tame the flu virus](#) by activating certain T cells in the lungs.

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