

# **Best of Last Week – New idea for fusion power plants, world's fastest camera and a link between diet and depression**

October 15 2018, by Bob Yirka

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The ARC conceptual design for a compact, high magnetic field fusion power plant. The design now incorporates innovations from the newly published research to handle heat exhaust from the plasma. Credit: ARC rendering by Alexander Creely

It was another good week for physics as a team at the University of

Exeter found that [new half-light half-matter particles may hold the key to a computing revolution](#)—they suggest the discovery may open the door to the development of photonic circuitry. Also, a team made up of graduate students at MIT, faculty and workers at Mitsubishi Electric Research Laboratories and Commonwealth Fusion Systems claimed to have developed [a novel design to shed excess heat in next-generation fusion power plants](#). And a team with members from Duke University, Oak Ridge National Laboratory and Argonne National Laboratory announced [a way to get copper ions to flow like liquid through crystalline structures](#), possibly leading to the development of superionic crystals.

In space news, a [team](#) with members from Cardiff University, NASA and the University of Virginia found that [giant, jagged 'ice spikes' cover Jupiter's moon Europa](#)—likely making things extremely difficult for any future landing craft. And NASA announced that [another space telescope shut down in orbit](#)—this time it was the Chandra X-ray Observatory.

In other news, a pair of researchers at the IT University of Copenhagen described scenarios in which [technological "allusive machines" could shape beliefs and theories about life](#). And a team with members from Institut National de la Recherche Scientifique and California Institute of Technology announced that they had developed [the world's fastest camera—one that freezes time at 10 trillion frames per second](#). A team at the Sanders-Brown Center on Aging at the University of Kentucky found evidence that suggested [the ketogenic diet appears to prevent cognitive decline in mice](#). And a team at the University of Lorraine announced that they had come up with [a new developmental reinforcement learning approach for sensorimotor space enlargement](#).

And finally, if you are one of the millions of people around the world who experience episodes of [depression](#), you might want to take another look at what you eat. A team of researchers at James Cook University

studying the [diet](#) of people living on Torres Strait islands [found a link between what people ate and depression](#).

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