

Best of Last Week—largest 3D map of universe, obscuring images for privacy, stool transplants help with Parkinson's

April 8 2024, by Bob Yirka

DESI has made the largest 3D map of our universe to date. Earth is at the center

of this thin slice of the full map. In the magnified section, it is easy to see the underlying structure of matter in our universe. Credit: Claire Lamman/DESI collaboration; custom colormap package by cmaestro

Using data from the Dark Energy Spectroscopic Instrument, multiple teams of researchers have created the largest-ever [3D map of the universe](#), which is expected to give future researchers the ability to look 11 billion years into the past. Also, officials at NASA announced that they had been directed by officials at the White House to come up with [a new clock for the moon](#), where seconds tick away faster. And a team of astronomers led by Olivier Demangeon, with the Institute of Astrophysics and Space Sciences, in Portugal, detected a potential ["glory effect"](#) on a hellish distant world for the first time—the effect involves rings of light that occur only under peculiar conditions.

In technology news, a team of engineers at the Queensland University of Technology, in Australia, demonstrated their [privacy-preserving robotic cameras](#) that can obscure images beyond human recognition and thereby help preserve privacy. And a team of physicists and engineers at Technical University of Denmark reported that it is possible to build a working [selenium–silicon tandem solar cell](#)—a combination that could theoretically improve the efficiency of solar cells to 40%. Also, a team of AI researchers at Nagoya University, in Japan, developed a diverse range of [personality traits in dialogue AI](#) using a large-scale language model, allowing them to behave cooperatively or selfishly. And a team of engineers at the Chinese Academy of Sciences developed a [high-performance energy management unit](#) that could significantly boost the efficiency of electrostatic generators for Internet of Things applications.

In other news, a team of medical researchers at Columbia University Irving Medical Center released the results of a study that showed far-UVC light can virtually [eliminate airborne viruses](#) in an occupied room. Also, a combined team of mathematicians from City University of Hong Kong and North Carolina State University discovered that [prime numbers can be predicted](#). And finally, a team of medical researchers at the Flanders Institute for Biotechnology, in Belgium, report that [stool transplants](#) provide health benefits for people with Parkinson's disease.

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