

Best of Last Week – Black holes dancing, a magnetic phase of matter, veggies do not prevent cardiovascular disease

February 28 2022, by Bob Yirka

This artist's concept shows two candidate supermassive black holes at the heart of a quasar called PKS 2131-021. In this view of the system, gravity from the foreground black hole (right) can be seen twisting and distorting the light of its companion, which has a powerful jet. Each black hole is about a hundred million times the mass of our sun, with the black hole in the foreground being slightly less massive. Credit: Caltech/R. Hurt (IPAC)

It was a good week for space science, as an international team found [two colossal black holes locked in dance at the heart of a galaxy](#). Initial data suggests they orbit around each other every two years. Also, another international team [mapped more than a quarter of the northern sky](#) using the Low Frequency Array and revealed 4.4 million galaxies.

In technical news, a team with members from Chemnitz University of Technology, Leibniz Institute for Solid State and Materials Research and Changchun Institute of Applied Chemistry developed [the world's smallest battery](#) and used it to power a computer the size of a grain of dust. And a team at the University of Arizona developed [a method to automatically generate radar-camera datasets for deep learning applications](#), based on a highly accurate object detection algorithm and an association technique to label a radar point-cloud. Also, a team at the University of Canberra found that [online privacy has become a source of inequality based on geographical location](#). And a collaboration between teams at the University of Denver, DreamFace Technologies, and the University of Colorado found that [artificial emotional intelligence could change senior users' perceptions of social robots](#).

In other news, a team at the U.S. Department of Energy's Brookhaven National Laboratory found [evidence of an exotic magnetic phase of matter](#). And a collaboration between researchers at the Max Planck Institute for Medical Research, the Max Planck Bristol Center for Minimal Biology and the University of Bristol [created minimalistic SARS-CoV-2 virions and discovered the spike protein switching mechanism](#) for the virus. Also, a team with members from MIT, Stockholm University and the SLAC National Accelerator Laboratory developed [a new, inexpensive catalyst that speeds the production of oxygen from water](#).

And finally, a collaboration between the Nuffield Department of Population Health at the University of Oxford, the Chinese University of

Hong Kong, and the University of Bristol found evidence suggesting that [eating vegetables does not protect against cardiovascular disease.](#)

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