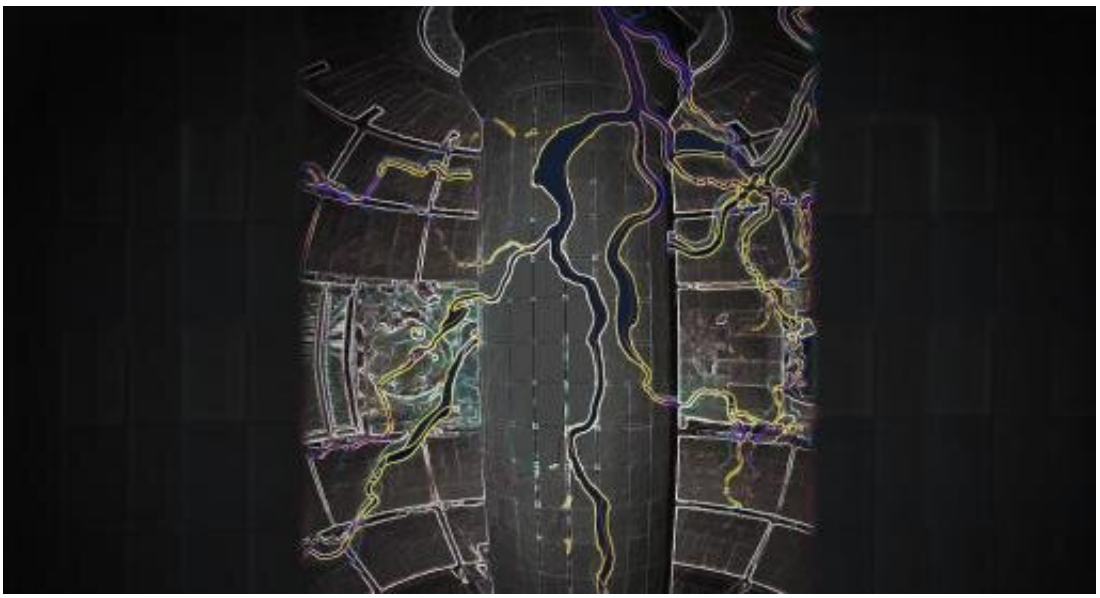
Best of Last Week – New kind of electric current, AI Jesus and the hazards of unventilated busses

September 7 2020, by Bob Yirka



An artist's rendering of electrical current flowing through a tokamak fusion facility. Credit: Elle Starkman

It was a good week for physics research as a team working at Purdue University found evidence suggesting that the quantum world is even stranger than we thought—they found electrons behaving collectively to form anyons. Also, a team at the University of Hawai'i at Mānoa predicted the location of a novel candidate for mysterious dark energy—so-called generic objects of dark energy. And a team at the

DOE's Princeton Plasma Physics Laboratory found an unexpected electrical current that could stabilize fusion reactions—a type of current that arises in plasma that has never been seen before.

In technology news, a New Zealand-based startup called Emrod announced the development of a wireless electric transmission system based on a series of antennas that could provide electricity to remote areas at reduced costs. And an international team of researchers solved a decades-old mystery involving lithium-ion battery storage—how the metal oxides are able to store energy beyond classic electromagnetic storage mechanisms. Also, a combined team with members from Northwestern University and Delft University of Technology demonstrated a battery-free Game Boy that runs forever using energy harvested from the sun. And entrepreneur, engineer and quantum researcher George Davila Durendal developed an artificial intelligence system called AI Jesus that is able to write Bible-inspired verse—it was trained on the entire text of the King James Bible.

In other news, a team of researchers working at Flinders University announced a new surgical procedure that promises relief for people who struggle with CPAP masks. And a team at Florida Atlantic University's College of Engineering and Computer Science carried out a study that showed that face shields and masks with valves are ineffective against the spread of COVID-19.

And finally, if you are among the millions who use public transportation and are worried about being infected with COVID-19, you may want to check out the work by an international team of researchers who report that study of a poorly ventilated Chinese bus offered new evidence of airborne coronavirus spread.