

Best of Last Week: Unlocking an old physics secret, artificial bee colony optimization, and food packaging findings

October 14 2019, by Bob Yirka



Credit: CC0 Public Domain

It was a good week for physics as a group at IBM [solved a 140-year-old mystery in physics](#), revealing some previously unknown physical

characteristics of semiconductors. Also, a group with members from NIST, the University of Maryland, NHMFL and the University of Oxford announced that they had observed [a rare phenomenon called Lazarus superconductivity in a promising, rediscovered material](#)—uranium ditelluride.

It was also a good week for technology research, as a pair of computer engineers at Iowa State University, Alexander Stoytchev and Vladimir Sukhoy, [solved a 50-year-old puzzle in signal processing](#)—the inverse fast Fourier transform. And a team at MIT [put Leonardo da Vinci's bridge design to the test](#), and found that it held up. Also, a combined team from Nanjing University and the University of Toronto created [all-perovskite tandem solar cells with 24.8 percent efficiency](#). And a team with members from Mahatma Gandhi Mission's College of Engineering & Technology and Jaypee Institute of Information Technology developed [a speech recognition system using artificial neural networks and artificial bee colony optimization](#)—they claim it is more accurate than any other existing system.

In other news, Elliot Hawkes, a [mechanical engineer](#) at Stanford University, found [a simple running hack that is fun and increases efficiency](#)—strap on a resistance band between your feet before heading out for a jog. Also, a team of researchers at Silent Spring Institute found that [people who eat more meals at home have lower levels of harmful PFAS in their bodies](#)—per- and polyfluoroalkyl substances are a class of chemicals commonly used in food packaging. And Swiss Nobel laureate Michel Mayor made headlines when he declared that [humans will not "migrate" to exoplanets](#).

And finally, if you are like millions of others hoping to help keep your heart ticking no matter your age, you might want to take a look at a study conducted by a team led by Gaëlle Deley with the University of Burgundy Franche-Comté—they found that [regular exercise is good for](#)

[your heart, no matter how old you are.](#)

© 2019 Science X Network

Citation: Best of Last Week: Unlocking an old physics secret, artificial bee colony optimization, and food packaging findings (2019, October 14) retrieved 15 July 2025 from <https://sciencex.com/news/2019-10-week-physics-secret-artificial-bee.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--