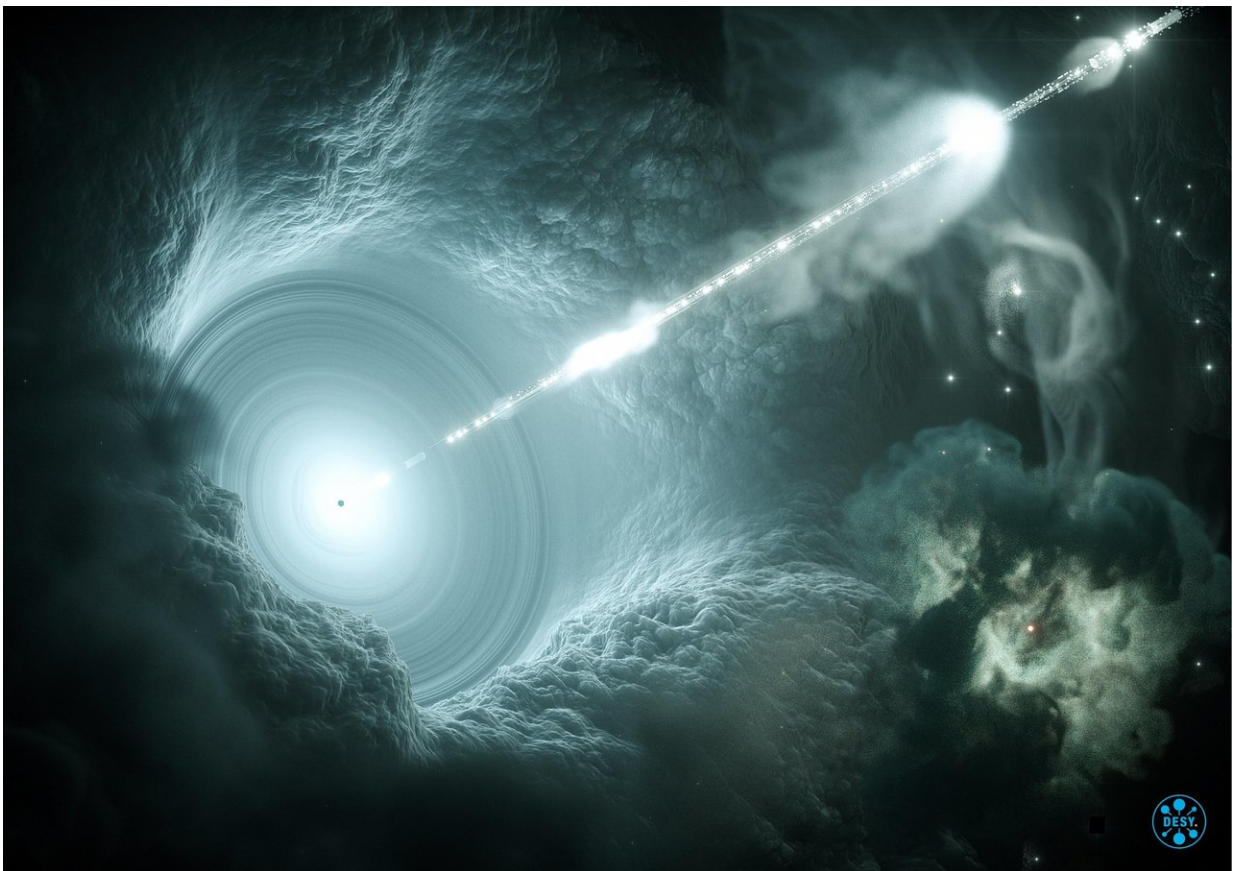


Best of Last Week – Century old physics riddle solved, world's oldest colors and eating fat is cause of weight gain

July 16 2018, by Bob Yirka



Artist's impression of the active galactic nucleus. The supermassive black hole at the center of the accretion disk sends a narrow high-energy jet of matter into space, perpendicular to the disc. Credit: DESY, Science Communication Lab

It was a good week for physics as a combined team from MIT and Harvard University asked whether [gravitational waves could reveal how fast our universe is expanding](#). They have proposed a more accurate and independent way to measure the Hubble constant. Also, a team working on the ATLAS experiment at CERN reported that [a Higgs boson had been observed decaying to b quarks](#). And an international team of researchers announced that [a more than century-old riddle had been resolved—a blazar is a source of high-energy neutrinos](#). The team used data from the IceCube Neutrino Observatory at the Amundsen-Scott South Pole Station to make the discovery.

There was also news about our planet as a team from the University of Miami and Florida International University found evidence showing that [there is a deep subterranean connection between two volcanoes in Japan](#)—Aira caldera and Kirishima, which are 22 kilometers apart. And a team at the Australian National University uncovered what they describe as [the world's oldest colors](#)—billion-year-old bright pink pigments extracted from some rocks below the Sahara Desert.

In other news, a team in New Zealand announced that they had produced [the first-ever color X-ray on a human](#). The technique was based on technology developed at CERN. Also, a team studying Otzi's stomach contents reported finding that [the 5,300-year-old Iceman's last meal revealed a remarkably high-fat diet](#)—likely to help him keep warm. And a team at UCLA found that [parents who had severe trauma or stresses in childhood are more likely to have kids with behavioral health problems](#)—showing that such trauma can span generations. Also, a team with the Science Education Department of the Harvard Smithsonian Center for Astrophysics found that [mastering prerequisites—not taking calculus in high school—better predicts success in college](#). Their analysis of success rates of 6,000 college freshmen at 133 colleges showed that the best approach is to master subjects like algebra, geometry and trigonometry, rather than jumping into calculus.

And finally, if you are one of the millions across the globe trying to lose weight, you might be interested in a study conducted by a team from the University of Aberdeen and the Chinese Academy of Sciences—they found that that [fat consumption is the only cause of weight gain](#)—at least in mice.

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