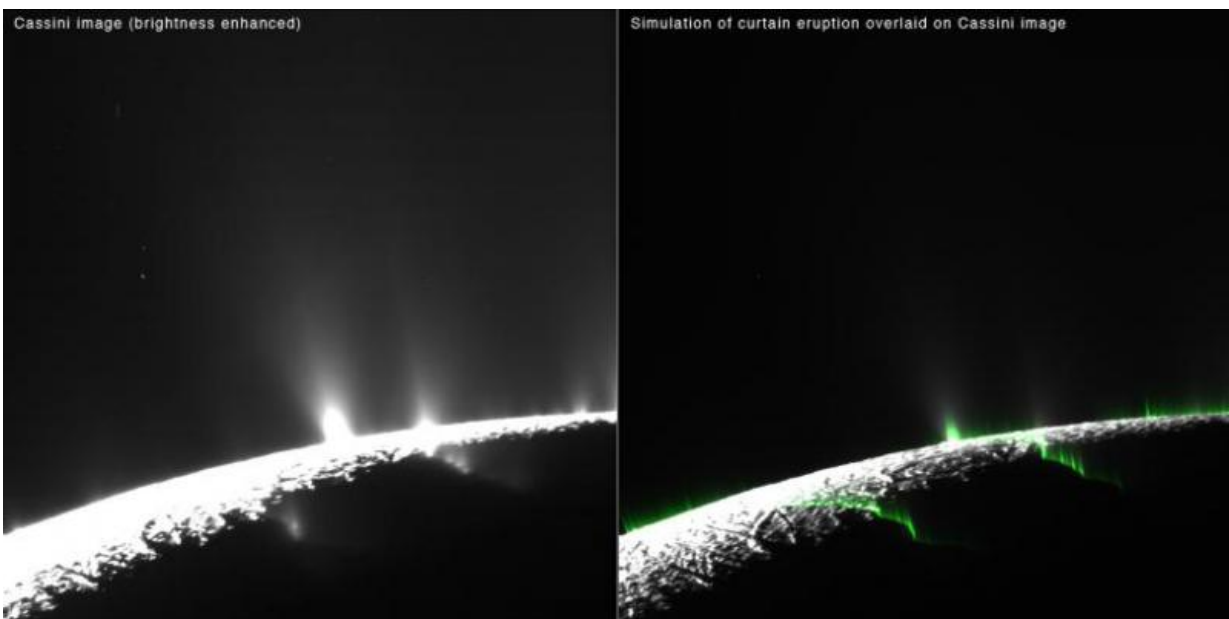


Best of Last Week – Peaks on Pluto, fastest ever flexible diode and sleep deprivation's impact on ability to read faces

July 20 2015, by Bob Yirka



Icy eruptions like those occurring on Saturn's moon Enceladus could be possible on the dwarf planet Pluto and its large moon Charon. Credit: NASA/JPL-Caltech/SSI/PSI

It was another interesting week for physics as [a massless particle with promise for next-generation electronics was found](#)—after an 85 year search, an international team of researchers finally discovered the Weyl fermion. It has the unique ability to behave as matter and antimatter

inside of a crystal. Also, a team with the Leibniz Institute for Astrophysics Potsdam found [a dark matter bridge in our cosmic neighborhood](#)—it came into view as they created detailed maps of how galaxies move.

And speaking of space, it was a big week for the New Horizons space probe as it conducted a first-ever fly-by of Pluto. Pictures sent back showed [peaks on Pluto and canyons on Charon](#) and a distinct lack of craters. Next, when it [gets done with Pluto, the probe will drift in an endless sea of space](#)—joining Voyager 1 and 2 and Pioneer 1 and 2. There was also other news about space, as researchers monitoring data from the [Gaia satellite, along with amateur astronomers, spotted a one-in-a-billion star](#)—a binary system in which one star completely eclipses the other.

It was also a pretty big week for technological development: Engineers at the University of Wisconsin developed [a nanoscale device that can emit light as powerfully as an object 10,000 times its size](#)—a development that might have a big impact on imaging systems. Also, researchers at the University of Toronto announced that they had [successfully combined two different materials to create a new hyper-efficient light-emitting crystal](#)—possibly setting the stage for a new LED technology platform. And an international team of researchers announced that they had developed [the fastest-ever flexible diode that provides the "last missing piece" needed to realize bendable phones](#).

In unrelated but still interesting news, a pair of researchers with the University of Illinois carried out [a massive study that showed that birth order has no meaningful effect on personality or IQ](#)—the differences were so slight, the two report, that they had no relevance to people's lives.

And finally, if you have ever found yourself having mixed feelings about

someone you thought was a friend, you might be interested in a new study that found that [the sleep-deprived brain can mistake friends for foes](#)—UC Berkeley researchers found that lack of sleep tends to dull our skill at reading facial cues accurately, which suggests it might be best to sleep on it when such situations occur.

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