## SPACE SCOOP WIADOMOŚCI ZE WSZECHŚWIATA

SPACE



## Beaming with the Light of Millions of Suns 21 marca 2018

If our eyes could see super-energetic types of light like X-rays, looking at our friends would be a weird experience. We'd be able to see straight through their skin to their bones underneath!

Really, we're lucky we don't have that super power — but there are lots of benefits to looking at X-rays coming from objects in space using telescopes.

Most X-rays come from extremely hot objects with temperatures up to hundreds of millions of degrees, including the Sun, exploded stars and feeding black holes!

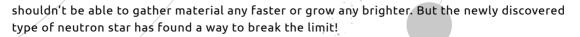
In the 1980s, scientists started discovering a new type of object in other galaxies that was extremely bright in X-rays. When looked at with X-ray telescopes, they shone as bright as a million suns combined.

At first, scientists thought these cosmic objects were feeding black holes, but recent studies revealed that some are actually neutron stars.

Neutron stars are the burnt-out cores of massive stars that have exploded. They are extremely dense objects, containing more material than our Sun but squashed into a sphere the size of a city!

Like black holes, neutron stars have ultra-strong gravity that can pull material away from nearby stars. As this material falls toward the neutron star, it heats up and begins to glow with X-rays.

As more and more material falls onto the neutron star, there comes a point where the X-ray light becomes so intense that it actually pushes the material away. At this point the star



SPACE<sup>®</sup> awareness

"In the way we can only eat so much food at a time, there are limits to how fast neutron stars can gather material," said Murray Brightman, a scientist on the new study. "But these objects are somehow breaking this limit to shine so incredibly bright in X-rays, and we don't know why."

## COOL FACT!

Neutron stars are actually more similar to planets than stars — they can actually have a solid crust. Some scientists think that neutron star crust is around 10 billion times as strong as steel.



Λ