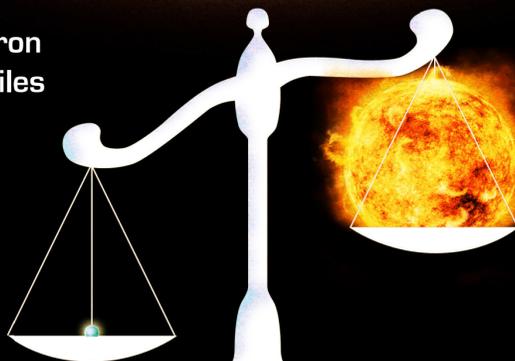


# NEUTRON STARS

A DENSE STELLAR REMNANT PRODUCED BY THE COLLAPSE OF THE CORE OF A MASSIVE STAR AS PART OF A SUPERNOVA THAT DESTROYS THE REST OF THE STAR.

Despite the fact a neutron star is only about 13 miles (20km) in diameter...



...it is about 1.5 times more massive than the Sun.

The voltage created by rapidly spinning neutron stars is 30 MILLION times greater than those of lightning bolts.

Like a rotating lighthouse beam,

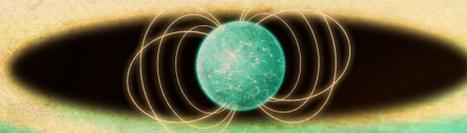
the radiation, produced by the spinning, can be observed as a pulsing source of radiation, or pulsar.



The strongest steady magnetic field produced on Earth in a lab is about ONE MILLION times greater than the Earth's magnetic field.

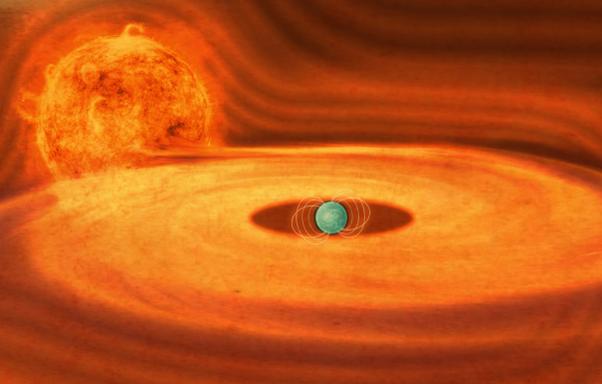
Magnetars are neutron stars with magnetic fields that can be about a QUADRILLION times greater than the magnetic field of Earth.

If a neutron star is in a close orbit around a normal companion star, it can capture matter flowing away from that star.



This is known as an accreting neutron star in a binary star system

Some of the strongest X-ray sources in our galaxy are neutron stars pulling material away from a companion star.



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