The Black hole

You can see from the Fig. 1, there is a singularity at the center of the black hole. In other words, **a place of infinite density.** Obviously, in the radius of a black hole close to the singularity, there will be a place with **a very high density.**

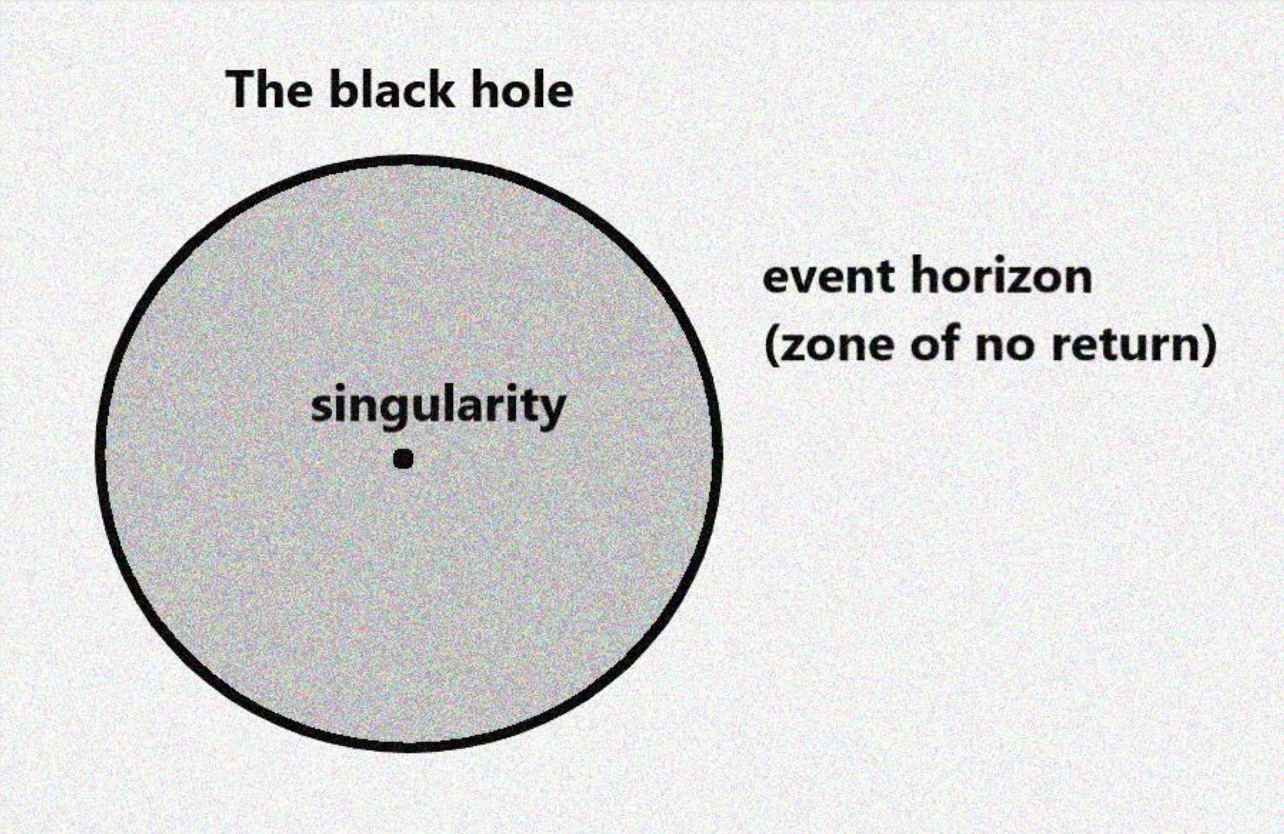

Fig. 1 - a very rough scheme of the black hole

If we roughly take the density of wavelengths of electromagnetic radiation (free energy) and compress the relevant wave package, then its energy (mass) increases proportionally - **see Einstein's experiment**, compressing a box of trapped electromagnetic waves. Which means that the energy (mass) near the singularity will reach astronomical values. **The value of energy near the singularity can be x - multiples of the energy value calculated for the entire universe.** It is unacceptable.

In addition, we know that when a neutron star collapses (exceeding Fermi pressure) into a black hole, time slows down. For observers on the outside, the black hole collapse stops, while for observers on the boundary of the Schwarzschild radius, the history of the universe accelerates rapidly.

From the above, the only possible conclusion - in the time of the external observer (which are us, humans with our instruments) the collapsing of the star into a black hole stops. It freezes, then. Then there can be no singularity and places with an energy value greater than our entire universe.

There are three basic questions about black holes.

Firstly - is it allowed to emitt photons in circumstances of very strong gravity field? *Fermi pressure was broken and all structures like particles or waves are broken also.*

Secondly - if there are emitted photons – how far they can escape? See the escape velocity of satellites versus cannon shot to height when the projectile must return, whereas the photon does not return but its frequency decreases until it disappears. *The energy of photon is given by its frequency multiplied by Planck constant.*

Thirdly – the question is tightly connected with expansion of our universe – such expansion energy (sometimes called dark energy) could affect the photons emitted from the black hole.

Remember: There is not only escape velocity of an object from the Earth, the Sun or any different star – we can leave our Earth in a jet rocket with the velocity lower then the escape velocity. We must satisfy the following condition:
the jet force of the rocket must be equal or gerater then the gravitational force at a given distance of the rocket from Earth. Of course the gravitational force decreases with greater distance from Earth. Then the jet force could be lower.

to be continued