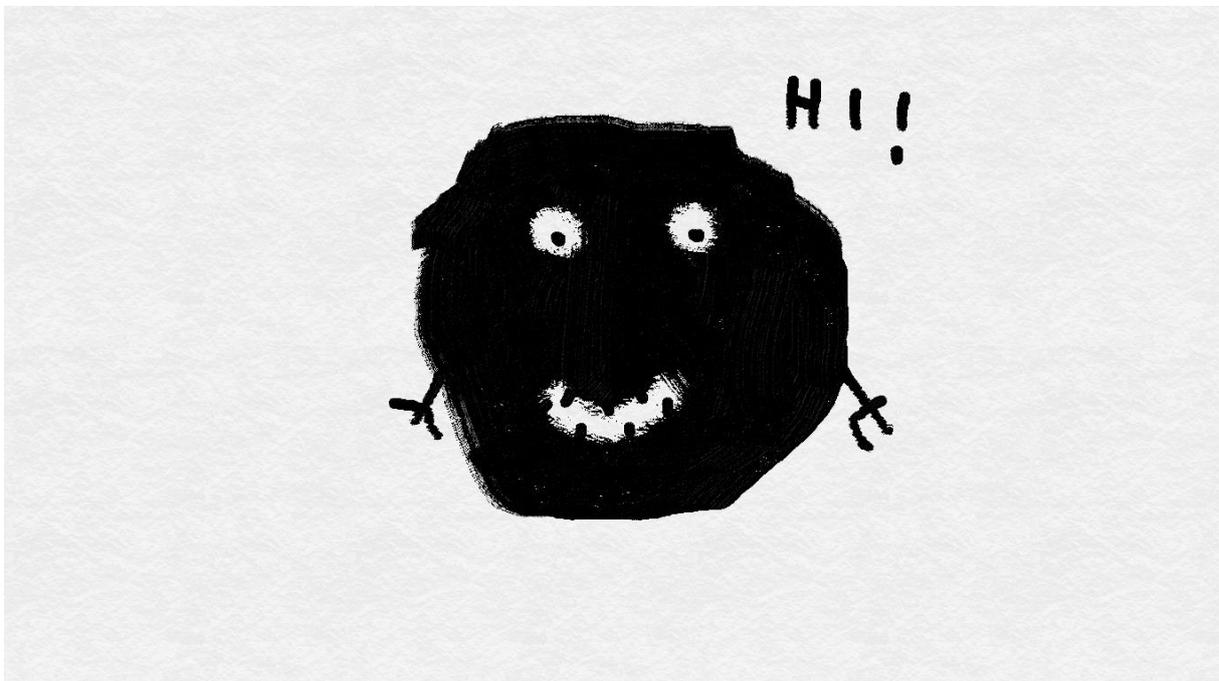


## Black hole- what is it

In our dissertation we want to describe cosmic black holes. We have been fascinated by these cosmic phenomena and the observation of space. We imagine some things Lying on the grass looking at especially the night sky. We think about other civilisations, distant stars, planets and other phenomena which take place in the universe. But what exactly is black hole? is it a phenomenon, object or something different? Has anyone tried to find answer to this question? Of course, even not only one person and we will only try to explain these places because probably we should call them this way.

We need to pack a lot of matter in one place to create a black hole. They can appear at the result of stars explosion when a star increases its volume and then it shrinks. More bodies fall into black hole it becomes bigger. This theory is becoming more and more complicated, isn't it? In short it looks this way: when a big star explodes it dies in the spectacular way its matter dissipates, however the star's core will remain and it will turn into a black hole or dwarf star. Black hole is invisible star.



Black hole is an invisible star. In black holes are places where the gravity works so strong that even light cannot escape from these holes. Everything will be engaged into it because nothing can move faster than light. It must be gluttonous including its own light. Falling into black hole resembles wild Niagara rafting. It is impossible to come back (like Jack) the same way you came there. The edge of black hole is called the horizon. If you are far enough from the edge you can move back. But if not you will stay there forever. Black hole absorbs everything it will come across no matter if it will be a star, cosmic gases, or dust. Can you imagine it? If not we can help you using the picture.



Has the imagination started working? Of course it has! so go ahead. Obviously we will not be able to see the black hole, we need to prove that the weight of the invisible ingredient exceeds critic value. If it does and the weight is equal to f.ex. mass of 5 suns it could be only a black hole. Unfortunately this method is not effective enough. Nevertheless we can observe objects rotating around dark empty space with special equipment. Scientist noticed that there is something not natural becoming, this extraoridnarity is a result of magnetizing cosmic dust or stars.



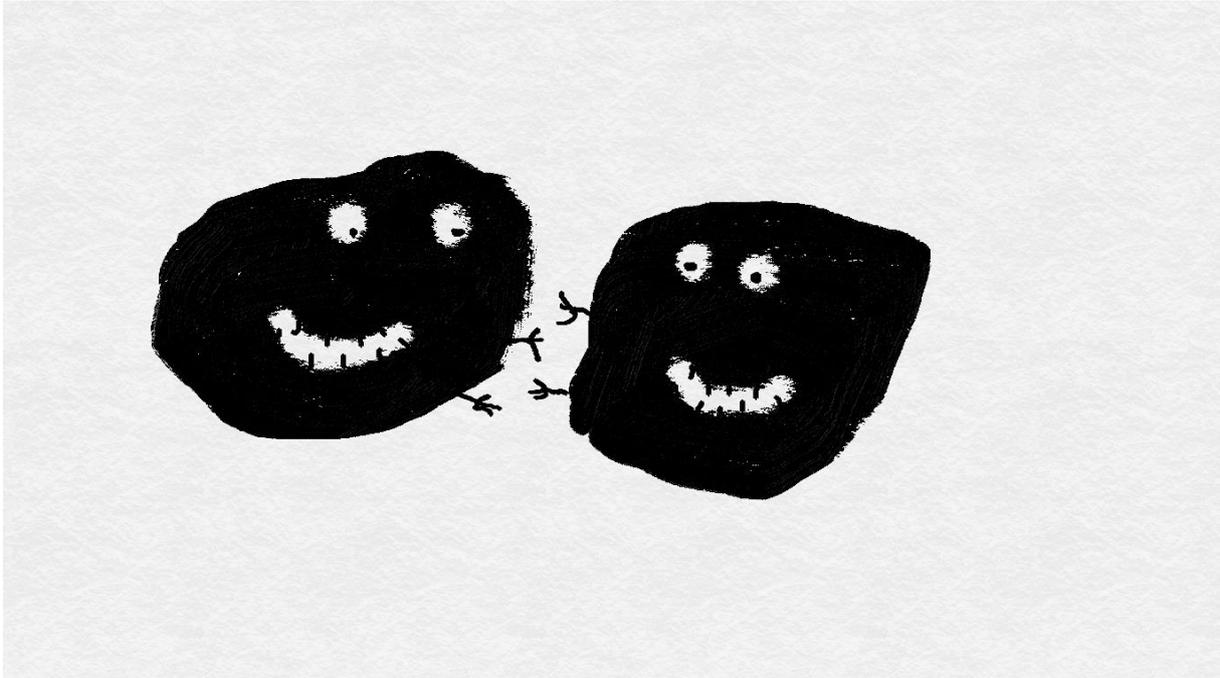
Where does the name of black hole come from? The light which gets into the horizon is also absorbed without reflecting anything (we have talked about it earlier).



According to Albert Einstein theory time passes by more slowly in a strong gravitational field than in weak one. Time and space create curving 4 dimensional timespace. Gravity becomes infinite outside the horizon, on the surface called ergosphere. When the body oversteps the surface, the field makes it move according to the black hole. All bodies inside the ergosphere surface are made to move around the black hole. Infinite gravity has an impact only on resting body. The body can move inside ergosphere on elliptic orbits without falling into the centre. And now imagine that we visit the black hole. We are in the tunnel which lead us to the another world. We think the time is distracted in the black hole, and getting into it, the time stops. Behind the black hole the ages are passing by but inside we are still young. But is it a real theory? Probably it is a fantasy but who knows...



It is possible to connect two black holes by direct crushing of them and linking into one. It could be a real phenomenon. The surface of the horizon of the black hole which appeared this way is bigger than the total surface of crushing hole's horizon.

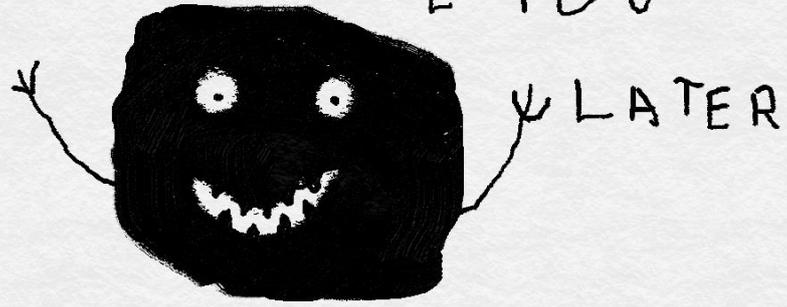


It has been believed that black holes are infinite and they would be existing till the end of the world, but it turned out that vision of black holes is not true. The particles captured in the black hole escaped as a Hawking radiation it makes that black hole slowly steam. When the black hole is big it steams very slowly but the small one steams quickly. The information about things that remains in the black hole will not be lost but forgotten for long time so it is possible to get out of the black hole.



That is everything we wanted to tell about the black holes. Perhaps next time we will extend our work with more theories.

SEE YOU



✓ LATER

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