

Answer on Question #54164, Physics Astronomy Astrophysics

- 1)What are blackholes and how they are formed?
- 2)What is the role of blackholes in our system?
- 3)What we actually experience when we go near them?
- 4)do sun revolves around something as earth, moon and all planets does?

Answer

1)What are blackholes and how they are formed?

A black hole is the region of space-time in which the gravitational field is so strong that no object (even light) cannot escape from it. From the field of space-time cannot be a black hole there is no communication with the outside toward her universe. At the surface of the black hole is not as such, but there is a boundary called the event horizon.

If the mass of the star is twice the sun, by the end of his life the star to explode as a supernova, but if the mass of the substance remaining after the explosion, still exceed two sun, the star would shrink into a tiny dense body, because the gravitational forces suppress internal resistance compression. Scientists believe that at this point a catastrophic gravitational collapse leads to a black hole, and the end of thermonuclear reactions a star can no longer be in a stable condition. For the remains of a massive star is one inevitable way of full compression (collapse), converting it into an invisible black hole.

2)What is the role of blackholes in our system?

The black hole is the center of rotation.

3)What we actually experience when we go near them?

At any moment, particle-antiparticle pairs are appearing and disappearing at any location, even just near the event horizon ("surface") of a black hole. These pairs exist for a short time, so short that we cannot measure their masses accurately enough to even know that they are there (however, we do know of their presence by the other effects they cause). But, for a pair near a black hole, one of the particles may fall into the hole, leaving the other without a partner; the particle left behind can't be quickly annihilated by its now missing partner (which is what happens normally). So the lonely particle left behind finds itself no longer "virtual," but now "real," just like any particle in your body. Since this particle is now real, it contains some amount of mass, and that mass has been supplied by the energy of the black hole (through the hole's gravity): the now real particle exists because it has taken mass from the black hole. Thus, gradually, mass leaves the black hole in the form of new particles appearing outside the hole.

4)do sun revolves around something as earth, moon and all planets does?

The sun revolves around the center of the galaxy.