Black Holes

6 April 2018

A reader asks four questions; The Committee then expands on the topic:

RQ1: What one could find beyond this theoretical distance from the black hole?
C: We must say, distance between you and the black hole, or between the black hole and something you perceive on the other side?

RQ2: There really is a singularity, inside?
C: This depends upon what you understand a singularity to be.

RQ3: Do[es] really light remain "frozen" on the event horizon?
C: No, because light is not frozen, it cannot be, and there is no event horizon, as these words are used, meant and understood in human English.

RQ4: Do[es] the time really slow/accelerate according to our understandings of physics (a.k.a. relativistic theory)? Or instead our formulations are just plain wrong? To date, we were able to detect gravity waves, so our understandings and theory seem accurate…
C: Yes. Gravity is a force, something distinct from what is understood to be a black hole.

Q: What are what we humans call black holes?
C: There are two phenomena, unrelated to one another, both called this. One is a dense object, often and usually a former collapsed star. The other is a doorway, conduit, hatch, opening, passageway, portal or tunnel into another universe. We dislike many of the words as they suggest tubes, hallways, or large pipes which might cover some distance. The interface with another universe is immediate, and can be compared to a sheet or pane of glass. From either side it is possible to see the other side, but the crossing over from one to the other cannot be done accidently. It must be done as a decision.

The dense object is simply and no more than that.

Q: Let's look at the dense object, seems simpler than a cross universe hatchway. What makes it dense?
C: Atoms are nearly empty, and can be compressed into a size far smaller than the volume of the object represents in the less dense state. The mass will remain the same.

Q: Why doesn't this happen with a block of steel, lead, gold or iron? Why do they seem so solid, heavy and sometimes very strong?
C: In the Earth environment of its three dimensions, there are limits or constraints to the existence of material in the environment. This applies to everything, and your bodies have physical presence because of this. When these limits are changed, material will take on different properties. Often the idea is, what exists in the Earth three dimensional environment becomes lighter or less dense. This is in the one direction; material can also become more dense and more solid, in the opposite or other direction of material density.

The dense object is an example of this.

Q: How does it occur?
C: We say, how is it composed, and we explain.

The larger a molecule, a connected group of atoms, the less dense it can become and retain the properties of the material in the Earth three dimensional environment. The smaller a molecule or atom, the more it can be compressed, because its nucleus contains fewer neutrons or protons. The distance between the orbiting electrons and the nucleus can be smaller.

There must be a specific distance between the nucleus and the orbits of the various electrons, and the larger the nucleus, the greater the number of orbits and distances between them.

A smaller atom with only one or two electrons, such as helium or hydrogen, can be compressed to a far smaller size than an atom of uranium. As a result, it is possible to have a far denser material made up of hydrogen or helium, than uranium. This is the dense object, often a former star.

Q: Is the theory that a star burns out, or consumes its "fuel" to the point that nuclear reactions can no longer occur, accurate?
C: Yes.

Q: The idea a star expands and becomes cooler and more red, as this occurs, is this also accurate?
C: Yes, however there are also stars which exist in a larger, more red form anyway without or prior to an expansion stage, and this is not necessarily the result of fuel consumption, as you say. This is the star you have named Arcturus, it is an example.

Q: So, why does it collapse into itself?
C: A combination of contraction from cooling and gravity. This does not occur unless there are certain levels of material, temperature and distance. When the fuel is consumed to the point temperatures begin to drop, the shrinkage of the star begins. The process is similar to a tall, pole-like tree falling after it has been cut. The several seconds required are mostly taken by the initial few percent of the ninety degrees the trunk will move, from vertical to horizontal. Then the trunk falls very quickly until reaching equilibrium once again.

The mass of the star creates a gravitational pull, always present. The dropping temperatures cause contraction, which the gravity accelerates. The previous expansive effect of the heat reduces and can no longer resist the gravity. A star is always gaseous and liquid, and does not have the physical strength to resist gravity as can a solid material.

Q: So how does it become dense?
C: The compression effect also makes the atom smaller. This also occurs on Earth in the three dimensional environment you occupy however the far smaller temperature changes, smaller mass of the object and lesser amount of material do not cause enough contraction to approach this effect. Nevertheless, shrinkage occurs with all solids, as you know well on Earth.

The molecules and atoms are compressed to a small fraction of their previous size.

Q: How much compression?
C: The diameter of the atom is reduced to approximately double the diameter of the nucleus.

Q: If the nucleus is just one proton, that means the radius of the electron's orbit is only half that of a proton?
C: Yes, and this is approximately one five hundredth to one thousandth the previous diameter, depending on the temperature. So the volume of the atom is reduced accordingly. Apply the formula for this calculation to see the difference.

> [Sidebar: I had to calculate this for myself. For a sphere with a radius of 10, the volume is 4189. For a sphere with a radius of just one, the volume is about 419. For a radius of 0.02 (which is one five hundredth) the volume is……(drum roll) only one 500^{th}! Obvious….]

Q: So the mass of the atom fits into one 500^{th} the space or maybe one $1{,}000^{th}$ the space?

C: Yes, but maintains the same gravitational effect.

Q: Why does no light escape, as we're told?
C: No light is produced, but it can escape if there were any.

Q: The darkness isn't?
C: For an interface yes, because light from one universe enters the other. Light from the next one can enter this one, but the object producing electromagnetic energy must be close enough to the interface for that energy to pass through. This is unlikely, thus it seems dark or black.

Q: Does anything from this universe get sucked or drawn into the next one? Or from the other universe into this one?
C: No.

Q: So what happens with the small dense object, as far as light is concerned?
C: It is too small to reflect much light unless the observers approach, and this depends on the technology. They are dangerous to approach because they can draw in and force a collision, however the ability to travel space and detect them go together, so they can be avoided and observed from safe distances.

You have the ability to see a planet the size of your Earth or your neighbor Jupiter, neither of which represent much gravity risk, until approached from a very short distance easily avoided.

The detection of a collapsed former star dense object is done through its gravity and electromagnetic energy emissions, if any remain.

Q: Are there many in our galaxy?
C: No, they are very few compared to the many billions of stars, planets and nebulae.

Q: Any risk we'd encounter one accidentally?
C: No, the gravity field would cause Earth to pass around abruptly. Earth would be tossed around it. Your central star would be more affected. This risk is infinitesimally low.

Q: Have stars collided with a former star dense object?
C: Yes, and these are what create nebulae.

Q: How many of the doorways to other universes are in our galaxy?
C: There is one but it will disappear as the galaxy moves beyond it. These doorways are fixed in location, the objects inside the galaxy move, approaching and then departing the portals or doorways.

Q: Do our souls go between universes often or at all?
C: Very uncommon, because there is nothing unique between them. All universes offer and contain what does any other.

Q: What about a dense former star black hole, accidentally moving through a portal into another universe? What happens to it?
C: Nothing. The difference is the loss or gain of the dense object, depending from which side the change is observed.

Q: So the mystery of black holes really isn't; there are two very distinct things, one a doorway and the other a former star very dense object and we won't encounter either.
C: No, you will not. The technological ability to detect the electromagnetic and gravitational waves will be shown to humans at some point, by your ET cousins and

neighbors. Later the ability will be developed to use this detection capability, as interstellar travel is achieved.

You will then understand why neither phenomenon is a risk.

Q: *Esteemed Committee, thank you for the astronomy information.*
C: Welcome you always are.