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Light in the Space of a Black Hole

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We know that there are many kinds of black holes in the universe and all of them are able to swallow every approaching mass, and even light. How is light swallowed by a black hole? No one knows, including Einstein with his concept of invariable light velocity. But if light velocity is variable, then it is immediately apparent why light cannot escape a black hole. I say that light is not swallowed by a black hole, but that light from our universal space translates into the light of a black hole and vice versa.

How is this done? To answer this question, we have to accept the following postulates:

-Inertial acceleration is equivalent to gravitational acceleration. This means the change of energy in an accelerated object is equivalent to that when attracted by a gravitational field, (according to General Relativity).
- Physical laws are the same in fixed and uniformly moving frames, (in both relativity theory and Newton's first law).
-The three physical factors (space, time and light velocity) in all frames of reference are directly related to one another. If the frame of reference is changed, then these three physical factors have to alter to create a physical rule of equivalence among frames of reference, (with respect to the discovery of Einstein's mistaken formula).

If light velocity in a frame at rest is c, light velocity in a moving frame will be altered by mass, space and time and will be $c.\gamma$, (γ = coefficient of Lorentz). In fact, we realize that the nature of the light is a duality of wave and particle, and in the quantum physic we call a particle of light a photon with an energy of $E=p.c$, (p is impulse of light) and a wave with an energy of $E=\hbar.\omega$, (of which $\omega =c.k$; $k=2\pi/\lambda \rightarrow \omega=c.2\pi/\lambda$. , we call ω the frequency of the light wave and λ is the wave length).

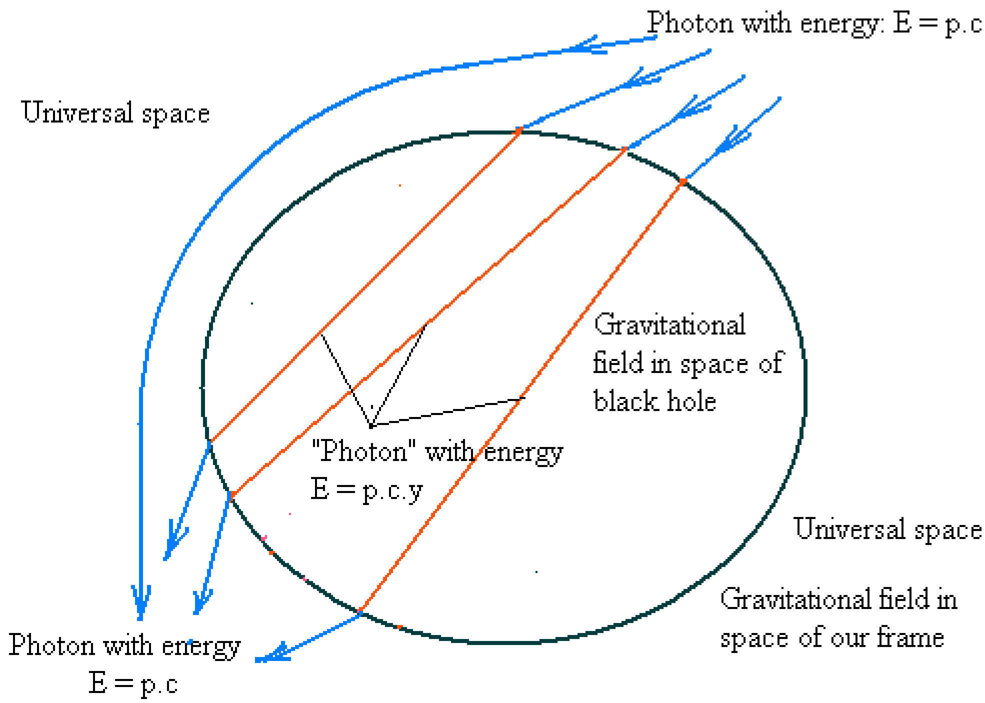
According to the above postulates, if in our space, a photon has an energy of $E=p.c$ and the frequency of a light wave is $\omega=c.2\pi/\lambda$, then in the space of a black hole, the “photon’s” energy will be $E_r=p.c.\gamma$ and the frequency of the light wave will be $\omega=c.\gamma.2\pi/\lambda$. (In which $\gamma > 1$ and γ depends on the energy of the gravitational field in the black hole which is equivalent to an increased mass or increased energy of a moving frame when it is accelerated to an extreme velocity).

So, from the earth we can’t see an original photon with energy is $E=p.c$ as well as original frequency of light wave at $\omega=c.2\pi/\lambda$ in the space of a black hole. But we can find a “photon” with the energy: $E_r=p.c.\gamma$ or the frequency of a “light wave”: $\omega=c.\gamma.2\pi/\lambda$ in the space of a black hole.

This is because the energy of the gravitational field in the black hole is higher than that in our frame. That is why we have to calculate the units of space and time for light velocity when light translates from one gravitational field to another. The energy of the photon has to be increased or decreased.

So, when entering into the gravitational field of a black hole, the energy: $E=p.c$ or frequency: $\omega=c.2\pi/\lambda$ of a photon of our frame are increased by the energy of the gravitational field of the black hole to $E_r=p.c.\gamma$ and $\omega_r=c.\gamma.2\pi/\lambda$ Contrarily, when entering into the gravitational field of our frame, the energy $E_r=p.c.\gamma$ or frequency: $\omega_r=c.\gamma.2\pi/\lambda$ of a “photon” from a black hole are decreased by the energy of the gravitational field of our frame to become $E=p.c$ and $\omega=c.2\pi/\lambda$.

We can see an illustrative figure of the translation of a photon in a black hole as follows:



(of which $y = \gamma$)

Because of this, I think we can also find the original photon with an energy of E=p.c or E=ħ.ω everywhere in the universe and its existence is not proof of a "Big Bang" explosion. If an explosion I pose the question, "how much is the temperature of a black hole's background? From the temperature of our universe's background is 2.7^{o} k, we can calculate the age of the universe at 13.7 billions of years, but we forgot about the existence of the black holes and their age. Perhaps the "Big Bang" is only an occurrence of our frame.

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