“Event horizon”, “black holes”, gravitational lensing, “dark energy”

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Introduction

In nature which I describe [1], famous relation between mass and energy is just that.

$$E = mc^2 \qquad (1)$$

And there is difference in time interval, out (T_0) and in (T) gravitational field, which is created by mass M[1] at distance R:

$$\frac{1}{T} = \frac{1}{T_0}\sqrt{1-\frac{2\gamma M}{Rc^2}} \qquad (2)$$

Space is not constricting in gravitational field, everything else does.

Twin paradox[2], is not paradox, but reality.

“Difference in time interval” (whatever process that you might have: Aging, pendulum, radioactive decay, chemical processes…) is energy dependent. Regardless if you “elevate pendulum uniformly[3] in Earth gravitational field” or “accelerate same pendulum with $1g$ ($g \approx 9.8\frac{m}{s^2}$) acceleration somewhere outside Earth gravitational field”, “Difference in time interval” will be equivalent.

Photon creates, and feel gravitational field.[4]

Size and mass of electron, proton, neutron and their constituents is energy dependant.

And central theme; if you lift something in gravitational field, you increase its mass, (equation (1)). [2]

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[1] Mass or energy, see equation 1.
[2] http://en.wikipedia.org/wiki/Twin_paradox
[3] Constant speed
[4] Mass or energy, see equation 1.

Explanation

Because there is no real solution to the square root of negative number i.e, (From equation (2)):

$$0 < 1 - \frac{2\gamma M}{Rc^2}$$

"…we see that $\frac{2\gamma M}{Rc^2} < 1$ **always** holds. More accurate and complete expression would be

$\frac{2\gamma Mc^2}{Rc^4} = \frac{2\gamma E_{tot}}{Rc^4} < 1$

E_{tot} in this expression means **any** energy.

It's impossible to put energy E_{tot} in space less then $const \cdot R$ (in sphere of radius *R*)

$$E_{tot} < \frac{c^4}{2\gamma} R \qquad \text{" [1]}$$

Or in other words

$$E_{tot} \cdot \frac{2\gamma}{c^4} < R \qquad (3)$$

Or in combination with equation (1) holds

$$\frac{2\gamma m}{c^2} < R \quad (4)$$

Therefore *R* is minimum radius for sphere in which you can put mass *m*.

Meaning of this equations and statements

1) There are no "event horizons", and "black holes" are not that black.

Because it is impossible to squeeze mass *m* in radius smaller then (4), (I speculate that if YOU squeeze mass in radius smaller then that, mass will go to zero but space around will expand accelerating[5]).

2) What we se as "black holes" are regions in space determined under "photon sphere radius", but always above "black hole" radius.

3) Our universe is one of almost "black hole", and in it, there are numerous alike.

4) Gravitational lensing

(See "Photon sphere radius" page 8, [1])

Photon creates, and feel gravitational field.

I think that most of the physicists these days agree with this statement.

5) Dark energy

If you look at the equation $\frac{2\gamma m}{c^2} < R$; what will happened with *R* if you increase mass *m*?
It will get bigger and bigger.(radius increase is proportional to mass increase,
Surface increase is proportional to increase of mass squared,
And volume increase is proportional to increase of mass cubed…)
There is neighbor to our universe, we take mass (energy) from it. As our universe does that, it must increase its size in order to avoid "square root of negative number". This increase in size must be accelerated, because constant space movement will not move mass in it.[6]

6) Down quark energy density and our universe energy density is the same.
It is maximum energy density possible.

7) In order to avoid "square root of negative number", Nature:

Expands our universe, holds elementary particles from collapsing into small "event horizons", and prevents whatsoever "event horizons" from being created…

[5] This is not "dark energy"
[6] This is "dark energy".

Reference

[1] Oliver R Jovanovic, *Gravity, Planck constant, structure of elementary particles,* http://vixra.org/abs/1209.0087 (2012)

[2] Shau-Yu Lan1, Pei-Chen Kuan1, Brian Estey1, Damon English1, Justin M. Brown1, Michael A. Hohensee1, Holger Müller1,2,*, *A Clock Directly Linking Time to a Particle's Mass, http://www.sciencemag.org/content/339/6119/554.short*