Schwarzschild **radius**

This radius is deemed to be the radius which in order to escape a body would need to travel faster than light.

Schwarzschild radius $rs=\frac{2\mathrm{Gm}}{c^2}$

G 6.67428e-11
earth radius 6375416 meters = Planck lengths 3.944568050031801971 47e41
earth mass 5.9737e24 kg = Planck masses 2.744711547297421 47727e32

earth rs = 0.008870056 meters Schwartz radius of earth

This is the expression that unify everything $\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right)$ as opposed to $\frac{1}{r^2}$

We do not need anything more than the above expression to understand everything. This will explain everything except how Santa made his way back up the chimney. The only reason that we have to add paraphernalia around it is because of our present scales of measurement.

This explains everything all forces strong ,weak, electromagnetism, and gravity.
It is based on the premise that there is only one manifestation of force, vibrations cause tension in the goo.

Two masses, one unit each, at unit distance apart, will produce one unit of force.

This expression is in all natural units, Planck units. This means we will convert our lengths forces etc. to Planck units.

F=Mm $\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right)$ as opposed to F=Mm $\frac{G}{r^2}$ classic gravity.

The same thing goes for electromagnetism, We replace Mm with Qq for charge. F=qq $\frac{Q}{r^2}$

Schwarzschild radius $rs=\frac{2\mathrm{Gm}}{c^2}$

In these natural units it means 1Planck mass * 1Planck mass * $\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right)$ produces 1Planck force at 1 1Planck length.

We need to derive the conversions.

$$F=\frac{2.\mathrm{M.m.c}^3}{\hbar}\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right) \qquad F=\frac{M.m.G}{r^2}$$

$$F=\frac{u0.Q.q.c^2}{2.\pi.p^2}\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right) \qquad F=\frac{q.q.Q}{r^2}$$

What is presently called the Gravitational constant, is just the case when two 1kg objects are one meter apart 1 Newton of force is produced. We can solve for G.

Combining both we can solve for G. The M.m cancel and we have :

$$G=\frac{2\,r^2c^3}{\hbar}\left(-1+\frac{1}{\sqrt{1-\frac{1}{r^2}}}\right)$$ we now have something like G let's call it G_n

We can now use G_n in the Schwarzschild formula for G. $rs=\frac{2\mathrm{Gm}}{c^2}$

$$rs=\frac{2\mathrm{mG}_n}{c^2}$$

m= mass of earth
r= radius of earth
p=Planck length

Schwarzschild radius of earth

nprint((2*G*m/c**2),50) classic

0.0088723041333762743077120076650476888071964415096744 classic Gravity

```
nprint(   ((r**2)*mpf(4)*m*p*(l/sqrt(l-l/r**2)-l)  ),50)
```
0.0088722910554851044068529096490032335538239072467884 new Gravity

General Schwarzschild radius

Planck length **p**
Mass of body **m**
Speed of light **c**
Planck constant **h**
hbar $\hbar$

Schwarzschild radius rs = $\frac{4.m.c}{\hbar}\left(-1+\frac{1}{\sqrt{1-p^2}}\right)$ in meters

or radius rs = $\frac{8\pi mc}{h}\left(-1+\frac{1}{\sqrt{1-p^2}}\right)$ in meters

Leon Rapaport
gravity2@rucko.com

unuseminucum The defense rest