## Planck mass and Planck length home

In the paragraph above dark matter induction law Sacharov's law of between any quantum mechanical particle and gravity can be reversed, the relation of  $m_{\lambda}$   $M = m_{pl}^{2}$ . The simple algebra for the three fundamental constants in physics giving this relation show how these three can be combined in Planck's mass of  $m_{pl}$  and Planck length of  $\lambda_{pl}$ . The three absolute constants are Heisenberg's uncertainty of h, the universal gravity constant G and the light speed c.

$$M_{pl}^{\ \ 2} = hc \ /G \ m_{pl} = 5.456 \ 10^{-8} \ kg \ {\lambda_{pl}}^2 = Hg \ /c^3 \ {\lambda_{pl}} = 4.051 \ 10^{-35} \ m$$

With physic constants truncated. So these cover the period of 1987 to recent.

$$G = 6.673 \ 10^{-11} \ m^3/(kg \ sec^2) \ h = 6.627 \ 10^{-34} \ Joule \ sec \ c = 2.998 \ 10^8 \ m/sec$$

return