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Erratum to "Empirical Equation for the Gravitational Constant with a Reasonable Temperature" [Journal of Modern Physics 11 (2020) 1180-1192]

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The original online version of this article (Miyashita, T. (2020) Empirical Equation for the Gravitational Constant with a Reasonable Temperature. *Journal of Modern Physics*, **11**, 1180-1192. https://dx.doi.org/10.4236/jmp.2020.118074) unfortunately contains the very important mistakes. The calculated temperature was 2.7195 K, which is similar to the temperature of the cosmic microwave background 2.7254 K.

2.1. Our Empirical Equation

Our empirical equation is quoted from Wikipedia.
https://en.wikipedia.org/wiki/Proton

$$\frac{Gm_p}{\frac{\lambda_p}{2}} \times 1\,\text{kg} = \frac{9}{2}kT \tag{1}$$

G: gravitational constant, 6.6743×10^{-11} ($\text{m}^3 \cdot \text{kg}^{-1} \cdot \text{s}^{-2}$)
m_p: the rest mass of a proton, 1.6726×10^{-27} (kg)
r_p: charge radius, 8.41×10^{-16} (m) (We must not use this value.)
lp: Compton wavelength 1.321409×10^{-16} (m)
k: Boltzmann constant, 1.380649×10^{-23} (J/K)
T: temperature (K)
1 kg: the standard mass (kg)

The temperature calculated using this formula was 2.71953 K, which is similar to the temperature of the cosmic microwave background of 2.72548 K. We must use the half of Compton wavelength. The proton consists of three quarks. Then, we must consider 9/2 kT and not 3 kT. But the main theory can be unchanged.