

Short Note on the Universe Mass divided by Universe Radius and the Planck Mass divided by the Planck Length

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The hypothetical radius suggested by standard physics of the observable universe is approximately 4.4×10^{26} meter. The mass of the observable is approximately 1.5×10^{53} kg. The universe mass divided by the universe radius is then

$$\frac{M_u}{R_u} \approx 3.4 \times 10^{26} \quad (1)$$

Likely or possibly a coincident the Planck mass divided by the Planck length is off about the same order

$$\frac{m_p}{2\pi l_p} \approx 2.1 \times 10^{26} \quad (2)$$

An interesting question is therefore if some of the observations that have lead to the hypothesis of the radius and mass of the observable universe actually is linked to something we not have understood about the Planck scale, or if the same order of magnitude value of the two ratios just is a coincident?