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Broken Symmetry

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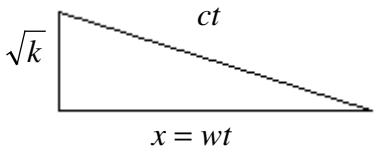
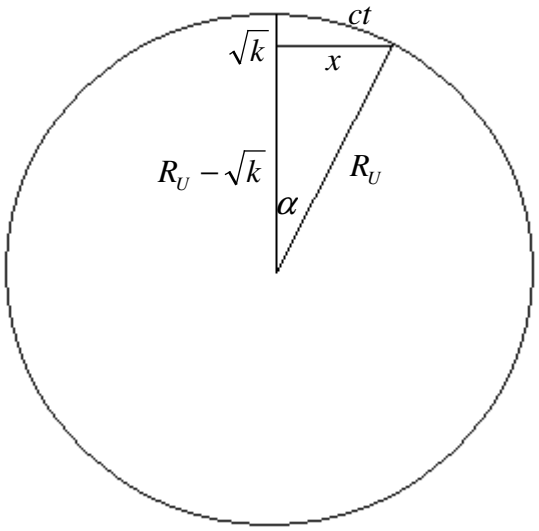
$$c^2t^2 - x^2 = k \quad ; \quad k = \frac{h}{\pi}(m^2)$$

h – Planck's constant



There are always two frames for light: ct is the path in our universe frame and x is the path in the local frame.



$R_U = 1.3\times10^{26}\,m$ -- Local radius of our universe

$$x^2 = {R_U}^2 - (R_U - \sqrt{k})^2 \quad \Leftrightarrow \quad x = 6.145\times10^4\,m$$

$$\sin\alpha = \frac{x}{R_U} \quad \Leftrightarrow \quad \alpha = 4.727\times10^{-22}\,rad$$

$$t = 2.05\times10^{-4}\,s$$

Local curvature -- $\frac{1}{R_U} = 7.7\times10^{-27}$