

A more general time formula works approximately.

$$t = \frac{Gh}{4\pi c^4} \oint_A \frac{dS}{R}$$

In the case of a gravitational field or acceleration, the relation formula between time and the holographic entropy of the surface will be

$$\frac{\partial t}{\partial t} = \frac{Gh}{4\pi c^4} \oint_A \frac{d\left(\frac{\partial S}{\partial t}\right)}{R} = 1$$

In general, the surface integral for the production  $\sigma$  of holographic entropy is normalized and is equal to unity

$$\frac{Gh}{4\pi c^4} \oint_A \frac{d\sigma}{R} = 1$$

$$\sigma = \frac{\partial S}{\partial t}$$

This formula is more general and universal for any closed surfaces, than the Bousso limit and surface formula Takayanagi.