

New Gravitational Formula and Newtonian Gravitational Formula

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Abstract: Gravity is a great mystery. In this paper we deduce new gravitational formula and Newtonian gravitational formula.. Gravity is the tachyon centripetal force. Anybody may understand gravitation.

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Using the tardyon and tachyon coexistence principle [1]

$$u\bar{u} = c^2 \tag{1}$$

where c is light velocity in vacuum, $u \leq c$ tardyon velocity and $\bar{u} \geq c$ tachyon velocity.

$$\bar{F} = -\frac{mc^2}{R}$$

We deduce the new gravitation formula:

Figure 1 shows that the rotation ω of body A emits tachyon mass \bar{m} , which forms the tachyon and gravitation field and gives the body B revolutions u and \bar{u} .

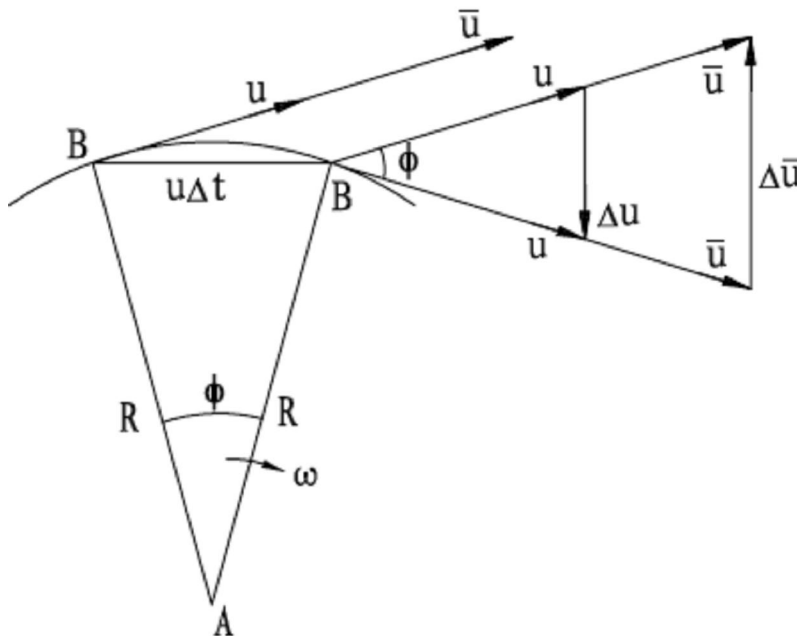


Fig.1. On body B $\frac{du}{dt}$ and $\frac{d\bar{u}}{dt}$ coexistence [2].

From Fig. 1 it follows

$$\frac{u\Delta t}{R} = \frac{\Delta u}{u} \tag{2}$$

From (2) it follows the tardyon centripetal acceleration on the body B [2-6],

$$\frac{du}{dt} = \lim_{\substack{\Delta u \rightarrow 0 \\ \Delta t \rightarrow 0}} \frac{\Delta u}{\Delta t} = \frac{u^2}{R} \tag{3}$$

From Fig. 1 it follows

$$\frac{u\Delta t}{R} = -\frac{\Delta \bar{u}}{\bar{u}} \tag{4}$$

From (4) and (1) it follows the tachyon centrifugal acceleration on the body B [2-6],

$$\frac{d\bar{u}}{dt} = \lim_{\substack{\Delta \bar{u} \rightarrow 0 \\ \Delta t \rightarrow 0}} \frac{\Delta \bar{u}}{\Delta t} = -\frac{u\bar{u}}{R} = -\frac{c^2}{R} \tag{5}$$

On body B $\frac{du}{dt}$ and $\frac{d\bar{u}}{dt}$ coexistence.

From (3) it follows the tardyon centrifugal force on body B [2-6],

$$F = \frac{M_B u^2}{R} \tag{6}$$

where M_B is body B mass.

From (5) it follows the tachyon centripetal force on body B , that is gravity [2-6],

$$\bar{F} = -\frac{mc^2}{R} \tag{7}$$

where m is the gravitation mass converted into by tachyon mass \bar{m} which is unobservable but m is observable.

(7) is new gravitational formula. On body B the F and \bar{F} coexistence.

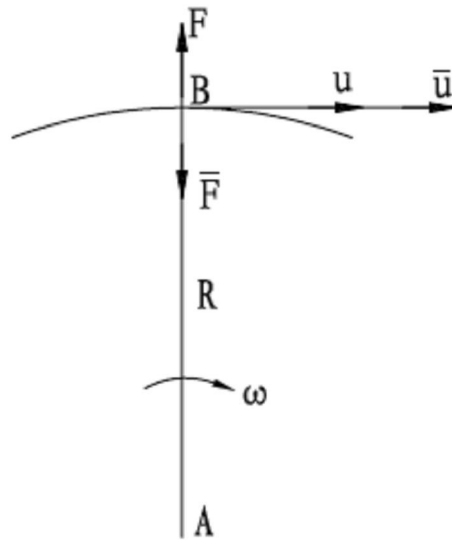


Fig.2. On body B F and \bar{F} coexistence[2].

From Fig. 2, it follows

$$F + \bar{F} = 0 \quad (8)$$

From (6), (7) and (8) it follows

$$\frac{m}{M_B} = \frac{u^2}{c^2} \quad (9)$$

Body B increases mass m and centrifugal force is greater than gravitation force, then body B expands outward. [5,6]

From (7) it follows Newtonian gravitation formula. The m is proportional to body A mass M_A , in (9) m is proportional to M_B , is inversely proportional to the distance R between body A and body B . It follows

$$m = k \frac{M_A M_B}{R} \quad (10)$$

where k is constant

Substituting (10) into (7) it follows the Newtonian gravitation formula [2-6]

$$\bar{F} = -G \frac{M_A M_B}{R^2} \quad (11)$$

where $G = kc^2 = 6.673 \times 10^{-8} \text{ cm}^3 / \text{g} \cdot \text{sec}^2$ is gravitation constant.

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Publish this in a refereed journal and once it is accepted buy yourself a first class ticket to Stockholm to pick up Nobel prize for physics.

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